

WAUKESHA COUNTY TRANSIT PLAN: 1988-1992

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**COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 105**

WAUKESHA COUNTY TRANSIT PLAN: 1988-1992

**Prepared by the
Southeastern Wisconsin Regional Planning Commission
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The preparation of this report was financed in part through a planning grant from the U. S. Department of Transportation, Urban Mass Transportation Administration.

September 1988

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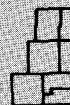
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September 21, 1988

To: The Honorable Chairman and Members of the Waukesha County Board of Supervisors

Ladies and Gentlemen:

In September 1986, Waukesha County requested the assistance of the Southeastern Wisconsin Regional Planning Commission in the preparation of a new five-year county transit plan. The plan, which was to identify required transit improvements for the period 1988 through 1992, was needed to bring up to date the recommendations contained in a similar plan prepared for Waukesha County by the Commission in 1980. To advise and assist the Commission staff in the preparation of the plan, County Board Chairman Betty J. Cooper created the Waukesha County Mass Transit Advisory Committee composed of elected and appointed officials, businessmen, and concerned citizens.

The Commission staff, working with the Advisory Committee, has now completed and is pleased to provide to you herewith on behalf of the Committee this report setting forth a new five-year transit plan for Waukesha County. The report presents transit service objectives and related performance measures formulated under the study; the findings of inventories of pertinent demographic, economic, and land use characteristics of Waukesha County, and of the travel characteristics of county residents; the results of an assessment of both systemwide and route-by-route transit system performance considering operating characteristics, ridership, and financial return; and recommended operational changes that would improve the performance of the county transit system.

The findings of the analyses indicate that some changes in the county public transit system should be considered to improve system performance and to minimize future county funding requirements. Accordingly, the plan recommends a number of changes in the current routes and schedules. Foremost among these changes would be the elimination of the most ineffective of the existing transit services, including all bus service provided west of the Goerke's Corners public transit station over two existing Oconomowoc-to-Milwaukee bus routes, and all weekend and holiday bus service provided over two existing Waukesha-to-Milwaukee bus routes. In addition, the plan recommends restructuring and expanding the existing weekday bus service provided between Waukesha and downtown Milwaukee. The plan also recommends that the existing county and city bus services provided between downtown Waukesha and the Blue Mound Road corridor be combined into one bus service. Finally, the plan recommends that the County continue to operate its public transit program separately from the city program, but that an effort be made to better coordinate both programs in the areas of staff resources and the private firms contracted with to operate and manage the transit services.

The findings and recommendations of this report were carefully reviewed and approved by the Advisory Committee. Implementation of the recommended plan would serve to concentrate available resources and capabilities in the services that will have the most significant positive impact on overall transit system performance, thus assuring the most effective use of limited public financial resources.

The Regional Planning Commission is appreciative of the assistance provided in the preparation of the recommended plan by the Waukesha County Transportation Department, as well as by the Advisory Committee. The Commission stands ready to assist the County in presenting the recommended transit plan and program to the public for review and evaluation, and in implementing the recommended service changes over time.

Sincerely,

Kurt W. Bauer
Executive Director

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TABLE OF CONTENTS

	Page
CHAPTER I - INTRODUCTION.....	1
Study Purpose.....	1
Scope of Work.....	2
Study Organization.....	2
Scheme of Presentation.....	3
 CHAPTER II - EXISTING TRANSIT SYSTEM.....	 5
History.....	5
Routes and Service.....	6
Equipment and Facilities.....	9
System Administration.....	11
System Ridership.....	13
Financial Situation.....	13
Other Public Transit Services.....	19
Intercity Bus Service.....	19
Waukesha Metro Transit.....	21
Taxi Service.....	23
Specialized Transportation Services.....	23
Summary.....	25
 CHAPTER III - LAND USE AND TRAVEL PATTERNS.....	 27
Introduction.....	27
Land Use.....	27
Population and Employment.....	29
Travel Patterns.....	39
Waukesha County Total Household Travel Pattern.....	39
Work Travel to the Milwaukee Central Business District.....	41
Waukesha County Transit System User Survey.....	41
Summary and Conclusions.....	50
 CHAPTER IV - EXISTING TRANSIT LEGISLATION AND REGULATIONS.....	 55
Federal Legislation.....	55
Urban Mass Transportation Act of 1964, as Amended.....	55
Section 3 Funds.....	55
Section 8 Funds.....	56
Section 9 Funds.....	56
Section 9B Funds.....	60
Section 16 Funds.....	60
Section 18 Funds.....	61
UMTA Administrative Regulations.....	61
State Legislation.....	65
Financial Assistance.....	66
Urban Public Transportation Assistance Programs.....	66
Specialized Transit Assistance Programs.....	67

	Page
Administrative Regulations and Controls.....	68
Summary.....	70
CHAPTER V - TRANSIT SERVICE OBJECTIVES AND STANDARDS.....	73
Introduction.....	73
Objectives.....	73
Principles and Standards.....	74
Overriding Considerations.....	74
CHAPTER VI - TRANSIT SYSTEM PERFORMANCE EVALUATION.....	79
Introduction.....	79
Systemwide Performance Evaluation.....	79
Service to Existing Land Use.....	80
Service Provided to Population and Employment.....	84
Contributions to the Efficiency of the Total Transportation System.....	85
Conclusion Based on Systemwide Performance Evaluation.....	88
Route Performance Evaluation.....	89
Ridership and Financial Performance.....	89
Route Segment Performance.....	95
Average Route Speeds.....	100
Compliance with Headway and Passenger Boarding Standards.....	101
Conclusions of Route Performance Evaluation.....	104
Summary.....	104
CHAPTER VII - ALTERNATIVE AND RECOMMENDED TRANSIT SERVICE CHANGES.....	107
Introduction.....	107
Alternative Transit Service and Fare Changes for 1988.....	107
Alternative Service Options for Oconomowoc-to-Milwaukee Routes.....	114
Option 1--Reduce Oconomowoc-to-Milwaukee Service.....	114
Option 2--Eliminate All Oconomowoc-to-Milwaukee Service, with No Service Change from Goerke's Corners Public Transit Station.....	115
Option 3--Eliminate All Oconomowoc-to-Milwaukee Service, with Some Service Reduction at the Goerke's Corners Public Transit Station.....	116
Alternative Service Options for Milwaukee-to-Waukesha Routes.....	117
Option 1--Eliminate Sunday and Holiday Service.....	118
Option 2--Eliminate Saturday, Sunday, and Holiday Service.....	119
Option 3--Eliminate Some Weekday Midday Service and Late Evening Service.....	119
Option 4--Eliminate Most Weekday Midday and Late Evening Services.....	121
Option 5--Eliminate All Weekday Midday and Late Evening Service.....	122
Alternative Fare Increases.....	123
Option 1--Increase Fares by 5 Percent Systemwide.....	123
Option 2--Increase Fares by 10 Percent Systemwide.....	125
Preliminary Staff Recommendations.....	125

	Page
Reaction to Preliminary Staff Recommendations for the 1988 Transit System Budget.....	130
Replacement of Service Provided Over Route No. 10.....	132
Option to Competitively Procure Public Transit Services for Waukesha County.....	142
Reaction of Waukesha County Highway and Transportation Committee to Additional Service Options Proposed for the 1988 Transit System Budget.....	145
Alternative Transit Service Options for 1989 Through 1992.....	152
Alternative 1: Continue to Operate Transit Services Included in 1988 Budget.....	154
Alternative 2: Fully Implement Service Cuts Included in Preliminary Staff-Recommended 1988 Budget Option.....	156
Alternative 3: Vehicle Purchase/Lease-Back Option.....	159
Alternative 4: Private Operator Proposal to Replace Service Provided Over Route No. 10.....	162
Alternative 5: City of Waukesha Proposal to Modify Routes No. 1 and 2.....	163
Alternative Evaluation and Recommendations.....	177
Final Recommendations.....	186
Summary.....	188
 CHAPTER VIII - RECOMMENDED TRANSIT PLAN.....	 199
Introduction.....	199
Recommended Fixed-Route Transit Service.....	199
Alternative and Recommended Operating Agencies and Institutions.....	200
Alternative Evaluation and Recommendation.....	202
Advisory Committee Comments.....	207
Specialized Transportation Services for Handicapped Persons.....	207
Financial Commitment.....	213
Financial Performance.....	213
Fares.....	216
Sources of Funding.....	217
Federal Funds.....	217
State Funds.....	223
Local Funds.....	224
Assessment of Financial Capacity.....	224
Plan Implementation.....	230
Waukesha County.....	231
City of Waukesha.....	231
Southeastern Wisconsin Regional Planning Commission.....	231
U. S. Department of Transportation, Urban Mass Transportation Administration, and the Wisconsin Department of Transportation.....	232
Subsequent Plan Adjustment.....	232
Summary.....	233
 Chapter IX - SUMMARY.....	 237
Introduction.....	237
Purpose of the Transit Plan.....	237
Study Organization.....	237

	Page
Existing Transit System.....	242
History.....	242
Ridership and Financial Performance.....	242
Management and Administration.....	243
Other Public Transit Services.....	243
Land Use, Socioeconomic, and Travel Characteristics of the County.....	243
Land Use.....	243
Population.....	243
Employment.....	244
Travel Habits and Patterns.....	244
Conclusions Regarding Land Use, Socioeconomic, and Travel Characteristics.....	245
Existing Transit Legislation and Regulations.....	246
Federal Legislation.....	246
State Legislation.....	247
Transit Service Objectives and Standards.....	248
Transit System Performance Evaluation.....	248
Alternative and Recommended Transit Service Options.....	250
Alternative Transit Service and Fare Changes for 1988.....	251
Proposed 1988 Service Changes for Oconomowoc-to-Milwaukee Bus Routes.....	252
Proposed 1988 Service Changes for Waukesha-to-Milwaukee Bus Routes.....	253
Proposed 1988 Fare Changes.....	253
Preliminary Staff Recommendations.....	254
Reaction of Advisory Committee to Preliminary Staff Recommendations.....	254
Evaluation of Additional Service Options Proposed for 1988 Transit System Budget.....	255
Reaction of Waukesha County Highway and Transportation Committee to Additional Service Options.....	256
Alternative Transit Service Changes for 1989-1992.....	257
Alternative 1--Continue to Operate Transit Services Included in 1988 Budget.....	258
Alternative 2--Fully Implement Service Cuts Included in Preliminary Staff Recommended 1988 Budget Option.....	258
Alternative 3--Vehicle Purchase/Lease-Back Option.....	259
Alternative 4--Private Operator Proposal to Replace Service Provided Over Route No. 10.....	259
Alternative 5--City of Waukesha Proposal to Restructure Routes No. 1 and 2.....	259
Evaluation of Alternatives.....	260
Final Recommendations.....	262
The Recommended Plan.....	263
Operational Changes.....	263
Alternative and Recommended Operating Agencies and Institutions.....	264
Specialized Transportation Services for Handicapped Persons.....	265
Financial Commitment.....	266
Plan Implementation.....	267
Conclusion.....	268

LIST OF APPENDICES

Appendix	Page
A Glossary of Technical Terms.....	271
B Survey Forms Used On Waukesha County Bus Routes During 1984 SEWRPC On-Bus Survey.....	275
Figure B-1 Survey Form Used on Bus Routes Operated by Wisconsin Coach Lines, Inc.	275
Figure B-2 Survey Form Used on Bus Routes Operated by Milwaukee Transport Services, Inc.	276

LIST OF TABLES

Table	Page
Chapter II	
1 Service and Operating Characteristics by Route for the Waukesha County Transit System: January 1987.....	9
2 Fare Structure for the Waukesha County Transit System Bus Routes Operated by the Milwaukee County Transit System: January 1987.....	10
3 Fare Structure for the Waukesha County Transit System Bus Routes Operated by Wisconsin Coach Lines, Inc.....	11
4 Station Facilities on the Waukesha County Transit System: January 1987.....	12
5 Operating Statistics for the Waukesha County Transit System: 1975-1986.....	15
6 Operating Expenses, Revenues, and Deficits for the Waukesha County Transit System: 1977-1986.....	15
7 Intercity Bus Stations and Stops Within Waukesha County: January 1987.....	21
8 Specialized Transportation Services Provided by Waukesha County Department of Aging: January 1987.....	25
Chapter III	
9 Distribution of Land Use in Waukesha County: 1980.....	31
10 Population Levels of Cities, Villages, and Towns in Waukesha County: 1950, 1960, 1970, 1980, and 1985.....	33
11 Number of Households in Waukesha County: 1950-1985.....	35
12 Median Family Income in Waukesha County: Census Years 1950-1980.....	35
13 Historic Employment in Waukesha County: 1963, 1970, 1980, and 1985.....	39
14 1980 Estimated Total Person Trips Within Waukesha County and Between Waukesha County and Other Counties in the Southeastern Wisconsin Region by Analysis Area.....	41

Table		Page
15	Average Weekday Ridership by Route on the Waukesha County Transit System: October 1984.....	45
16	Percentage Distribution of Ridership on the Waukesha County Transit System by Sex by Route: October 1984.....	46
17	Percentage Distribution of Ridership on the Waukesha County Transit System by Age Group by Route: October 1984.....	47
18	Percentage Distribution of Ridership on the Waukesha County Transit System by Income Group by Route: October 1984.....	47
19	Percentage Distribution of Ridership on the Waukesha County Transit System by Vehicle Availability by Route: October 1984.....	48
20	Percentage Distribution of Ridership on the Waukesha County Transit System by Automobile Availability and Household Size.....	48
21	Percentage Distribution of Trip Origins and Destinations of Ridership on the Waukesha County Transit System: October 1984.....	49
22	Percentage Distribution of Trips on the Waukesha County Transit System by Trip Purpose: October 1984.....	49

Chapter V

23	Public Transit Objectives, Principles, and Standards for the Waukesha County Transit Plan.....	75
----	--	----

Chapter VI

24	Standards Used in the Performance Evaluation of the Existing Transit System.....	80
25	Application of Specific Performance Measures in the Performance Evaluation Process.....	81
26	Major Commercial and Industrial Centers in Waukesha County: 1987.....	86
27	Average Daily Performance Characteristics of Bus Routes Operated as Part of the Waukesha County Transit System: April 1987.....	90
28	Average Daily Boardings and Deboardings on Waukesha County Transit System Routes Operated by Wisconsin Coach Lines, Inc., by Segments and Selected Stations or Stops: September 1986.....	96
29	Average Daily Boardings and Deboardings on Waukesha County Transit System Routes Operated by Milwaukee County Transit System by Segments and Selected Stations or Stops.....	97
30	Ranking of Waukesha County Transit System Route Segments by Average Total Weekday Boardings and Deboardings: 1986.....	99

Table		Page
31	Average Scheduled Speed for Routes of the Waukesha County Transit System: Weekdays 1986.....	101
32	Average Daily Passengers on Waukesha County Transit System Routes by Bus Run: April 1987.....	102

Chapter VII

33	Ridership and Financial Performance for the Waukesha County Transit System Under Status Quo Alternative: 1988 Projected...	109
34	Potential Impacts of Competitive Procurement of Existing Transit Service on Local Funding Requirements for Waukesha County Transit System: 1988 Status Quo Alternative.....	113
35	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Oconomowoc-to-Milwaukee Service Option No. 1.....	115
36	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Oconomowoc-to-Milwaukee Service Option No. 2.....	116
37	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Oconomowoc-to-Milwaukee Service Option No. 3.....	117
38	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Waukesha-to-Milwaukee Service Option No. 1.....	118
39	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Waukesha-to-Milwaukee Service Option No. 2.....	119
40	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Waukesha-to-Milwaukee Service Option No. 3.....	120
41	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Waukesha-to-Milwaukee Service Option No. 4.....	121
42	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Waukesha-to-Milwaukee Service Option No. 5.....	122
43	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Service Options Assuming a 5 Percent Fare Increase Systemwide.....	124
44	Ridership and Financial Performance for the Waukesha County Transit System Under Alternative Service Options Assuming a 10 Percent Fare Increase Systemwide.....	126
45	Preliminary Staff Recommendations for Reducing Waukesha County Funding for Transit Service in 1988.....	128
46	Ridership and Financial Performance for the Waukesha County Transit System with the Preliminary Staff-Recommended Service Changes: 1988.....	129
47	Transit Ridership on the Waukesha County Segment of MCTS Route No. 10 by Run: Thursday, September 3, 1987.....	133

Table		Page
48	Location of Boarding and Deboarding Activity for Passengers Using the Waukesha County Segment of MCTS Route No. 10: Thursday, September 3, 1987.....	134
49	Percentage Distribution of Trips on the Waukesha County Segment of MCTS Route No. 10 Involving a Transfer from Another Bus Route: Thursday, September 3, 1987.....	135
50	Percentage Distribution of Trip Ends in Milwaukee County for Passengers Using the Waukesha County Segment of MCTS Route No. 10 by City of Milwaukee Area or Suburb: Thursday, September 3, 1987.....	135
51	Percentage Distribution of Trips on the Waukesha County Segment of MCTS Route No. 10 by Trip Purpose and Time of Day: Thursday, September 3, 1987.....	135
52	Percentage Distribution of Passengers on the Waukesha County Segment of MCTS Route No. 10 by County of Residence: Thursday, September 3, 1987.....	136
53	Comparison of Existing Scheduled Bus Service Over Route No. 10 and Proposed Replacement Service Over Route No. 2.....	140
54	Comparison of the Routing of Existing and Proposed Scheduled Bus Trips Between the Brookfield Square Shopping Center and the Milwaukee Central Business District Over Routes No. 1 and 2.....	141
55	Ridership and Financial Performance for the Waukesha County Transit System Under Private Operator's Proposal to Eliminate Route No. 10.....	143
56	Ridership and Financial Performance for the Waukesha County Transit System Assuming Competitive Procurement of Existing Transit Services: 1988.....	146
57	Ridership and Financial Performance for the Waukesha County Transit System: 1987 Actual vs. 1988 Projected.....	150
58	Basic Assumptions Concerning Factors Affecting Transit Ridership and Required County Funding Levels for the Waukesha County Transit System Under Alternative Scenarios for the Period 1989-1992.....	153
59	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 1 Assuming a Continuation of Past Trends: 1989-1992.....	155
60	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 1 Assuming a Return to High Motor Fuel Prices: 1989-1992.....	157
61	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 2 Assuming a Continuation of Past Trends: 1989-1992.....	158
62	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 2 Assuming a Return to High Motor Fuel Prices: 1989-1992.....	160
63	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 4 Assuming a Continuation of Past Trends: 1989-1992.....	164

Table		Page
64	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 4 Assuming a Return to High Motor Fuel Prices: 1989-1992.....	165
65	Comparison of Selected Operating Characteristics of Waukesha County Bus Routes No. 1 and 2 Under Alternative 1 and Under Alternative 5.....	168
66	Comparison of Selected Operating Characteristics of Existing Waukesha County Bus Service Provided Within Blue Mound Road Corridor with that Proposed to be Provided by City of Waukesha Bus System.....	171
67	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 5 Assuming a Continuation of Past Trends: 1989-1992.....	172
68	Annual Ridership and Financial Performance for the Waukesha County Transit System Under Alternative 5 Assuming a Return to High Motor Fuel Prices: 1989-1992.....	174
69	Annual Ridership and Financial Performance for the City of Waukesha Transit System Under Alternative 5 Assuming a Continuation of Past Trends: 1989-1992.....	175
70	Annual Ridership and Financial Performance for the City of Waukesha Transit System Under Alternative 5 Assuming a Return to High Motor Fuel Prices: 1989-1992.....	176
71	Comparative Evaluation of Alternative Service Options for the Waukesha County Transit System: 1889-1992.....	178

Chapter VIII

72	Comparative Analysis of Alternative Strategies for Overseeing Operation and Administration of Existing Waukesha County and City of Waukesha Public Transit Services.....	204
73	Existing and Proposed Characteristics of the Specialized Transportation Service for Handicapped Persons Provided by Waukesha County to Comply with Current Federal Regulations.....	210
74	Annual Ridership and Financial Performance of the Waukesha County Transit System with the Staged Implementation of Recommended Service Changes: 1987-1992.....	214
75	Annual Ridership and Financial Performance of the Joint Waukesha County/City of Waukesha Bus Service Between Downtown Waukesha and the Brookfield Square Shopping Center: 1991-1992.....	215
76	Use of UMTA Transit Formula Assistance Funds by the City of Waukesha and Waukesha County: 1977-1988.....	219
77	Analysis of Alternative Methods for Distribution of UMTA Section 9 Transit Operating Assistance Funds Between Waukesha County and the City of Waukesha: 1989 Assumed Level.....	220

Table		Page
78	Transit Operating Characteristics Reported by Waukesha County and the City of Waukesha: 1987.....	222
79	Actual and Projected Appropriations from the State Transportation Revenue Fund: 1983-1992.....	228
80	Actual and Projected Waukesha County Property Taxes: 1983-1992.....	229

Chapter IX

81	Summary of Advisory Committee Findings and Recommendations for Waukesha County Transit Plan: 1988-1992.....	238
----	---	-----

LIST OF FIGURES

Figure		Page
Chapter II		
1	Organization Chart for Management of the Waukesha County Transit System.....	14
2	Annual Ridership on the Waukesha County Transit System: 1977-1986.....	14
3	Total Annual Operating Expense by Source of Funds for the Waukesha County Transit System: 1977-1986.....	16
4	Total Operating Expense in Constant 1977 Dollars by Source of Funds for the Waukesha County Transit System: 1977-1986.....	16
5	Total Actual Operating Expense per Revenue Vehicle Mile for the Waukesha County Transit System: 1977-1986.....	17
6	Total Operating Expense per Revenue Vehicle Mile in Constant 1977 Dollars for the Waukesha County Transit System: 1977-1986.....	17
7	Percentage Distribution of Total Operating Expenses Among Funding Sources for the Waukesha County Transit System: 1977-1986.....	18
8	Total Actual Operating Expense per Revenue Passenger by Funding Source for the Waukesha County Transit System: 1977-1986.....	19
9	Total Operating Expense per Revenue Passenger in Constant 1977 Dollars by Funding Source for the Waukesha County Transit System: 1977-1986.....	19

Chapter VI

10	Average Daily Total Passengers by Route for the Waukesha County Transit System: April 1987.....	91
11	Average Daily Passengers per Revenue Vehicle Hour by Route for the Waukesha County Transit System: April 1987.....	91

Figure		Page
12	Average Daily Operating Deficit per Passenger by Route for the Waukesha County Transit System: April 1987.....	92
13	Percent of Operating Expenses Recovered from Farebox Revenues by Route for the Waukesha County Transit System: April 1987.....	92

Chapter VIII

14	Actual and Projected Operating Expenses, Revenues, and Deficits for the Waukesha County Transit System: 1983-1992.....	225
15	Actual and Projected Revenue Vehicle Miles of Service for the Waukesha County Transit System: 1983-1992.....	225
16	Actual and Projected Annual Ridership on the Waukesha County Transit System: 1983-1992.....	226
17	Actual and Projected Federal, State, and County Funds Required to Subsidize the Operating Deficit of the Waukesha County Transit System: 1983-1992.....	226
18	Actual and Projected Allocation of UMTA Section 9 Formula Transit Assistance Funds to the Milwaukee Urbanized Area: 1984-1992.....	227

LIST OF MAPS

Map		Page
-----	--	------

Chapter II

1	Waukesha County Transit System: January 1987.....	8
2	Intercity Bus Routes Within Waukesha County: January 1987.....	20
3	Fixed-Route Bus Service Provided by Waukesha Metro Transit: January 1987.....	22

Chapter III

4	Urban Growth in the Southeastern Wisconsin Region.....	28
5	Waukesha County Land Use: 1980.....	30
6	Waukesha County Generalized Land Use Density: 1985.....	32
7	Waukesha County Population Density in Persons per Square Mile: 1985.....	34
8	Median Family Income Levels in the Municipalities of Waukesha County: 1980.....	36
9	Number of Households in Each Municipality of Waukesha County with No Vehicles Available for Travel: 1980.....	37
10	Ratio of Number of Vehicles Available to Population 16 Years of Age or Older in Each Municipality in Waukesha County: 1980.....	38

Map		Page
11	Waukesha County Employment Density in Jobs per Square Mile: 1980.....	40
12	Travel Patterns of Waukesha County Residents Within Waukesha County: 1980.....	42
13	Travel Patterns of Waukesha County Residents Between Waukesha and Milwaukee Counties: 1980.....	43
14	Number of Residents in Each Municipality of Waukesha County that Work in the Milwaukee Central Business District: 1980.....	44
15	Areas Within Waukesha County with the Potential to Support Efficient Local Fixed-Route Transit Service Under Existing Conditions.....	52
16	Areas Within Waukesha County with the Potential to Support Efficient Rapid and Express Transit Service Under Existing Conditions.....	53
Chapter VI		
17	Service Area for the Waukesha County Transit System: 1987.....	82
18	Major Commercial and Industrial Centers in Waukesha County: 1987.....	87
19	Route Segments of the Waukesha County Transit System.....	98
Chapter VII		
20	Areas Identified in Analysis of Special Survey of Route No. 10 Passengers Conducted September 3, 1987.....	137
21	Existing Routing of Wisconsin Avenue Branch of Route No. 10.....	138
22	Proposed Routing of Route No. 2 with New Branch to Replace Route No. 10.....	139
23	Proposed Changes to Routes No. 1 and 2 of the Waukesha County Transit System Under Alternative 5.....	167
24	Proposed Extension of Route No. 1 of the City of Waukesha Transit System Under Alternative 5.....	170
Chapter VIII		
25	Recommended Fixed-Route Transit Services for Waukesha County.....	201
26	Proposed Service Area for Origin-to-Destination Service Provided Under Waukesha County Parallel Commuter Bus Transportation Project.....	212

Chapter I

INTRODUCTION

In a letter dated September 8, 1986, the Waukesha County Highway and Transportation Committee requested the assistance of the Regional Planning Commission in preparing a transit development plan for Waukesha County. The Committee indicated that the plan was needed to bring up to date the recommendations contained in a similar plan prepared for Waukesha County by the Commission in 1980,¹ and to address certain issues concerning the provision of transit service within Waukesha County.

The requested transit development plan is documented in this report. The plan is based upon a thorough evaluation of the performance of the existing transit system within the County; analyses of the personal travel habits, patterns, and needs of the residents of the County, and of the transportation needs of the existing land use pattern; and a careful evaluation of alternative courses of action for providing the needed transit services within the County. The plan also identifies the financial commitment and actions necessary on the part of the various levels and units of government concerned to implement the plan.

STUDY PURPOSE

The purpose of this transit plan is fivefold:

1. To identify the types of transit services that should be provided within the County; the areas of the County to be served by each type of service; and the extent to which the County should fund such services.
2. To evaluate the effectiveness of the existing county-operated transit routes in serving the population, major trip generators, and travel patterns within the County.
3. To evaluate the financial performance of the existing county-operated transit routes with respect to operating costs, passenger revenues, operating deficits, and proportion of operating costs recovered by passenger revenues.
4. To recommend potential changes to the existing Waukesha County transit services with respect to operation areas served, and funding.
5. To identify potential methods for distributing the annual apportionment of federal Urban Mass Transportation Administration (UMTA) Section 9

¹See SEWRPC Community Assistance Planning Report No. 44, Proposed Public Transit Service Improvements--1980, Waukesha County, Wisconsin, July 1980.

operating assistance funds between Waukesha County and the City of Waukesha.

SCOPE OF WORK

Seven specific steps were performed in preparing this transit development plan. The first step was the formulation of appropriate transit service development objectives and supporting performance and design criteria. The second step was the collation and collection of socioeconomic, land use, and travel habit and pattern information pertinent to the evaluation of existing and proposed transit services. The third step was an analysis of the operation of the existing transit system, including the identification of any potential deficiencies in that system. The fourth step was the development and evaluation of alternative changes in transit service which could address the problems and deficiencies that were identified. The fifth step was the preparation of a program of recommended changes in the transit system. The sixth step was the preparation of data on operating expenses, passenger revenues, and operating deficits for the modified system, and on the portion of the associated operating deficits that can be funded through federal and state transit assistance programs and the portion that needs to be funded through local taxes. The seventh step was the identification of the actions needed to be taken by Waukesha County and by each of the other concerned levels and units of government to implement the recommended changes in the transit system and thereby achieve the recommended modified system and needed services.

The study area considered in the preparation of this transit development plan consisted of all of Waukesha County. It was recognized in the planning effort that the City of Waukesha is currently served by its own fixed-route urban bus system--Waukesha Metro Transit--for which a transit development plan was being concurrently developed by the Regional Planning Commission. The city and county transit development plans were thereby fully integrated with respect to jurisdictional responsibilities, as well as type of service, route structure and area of service, scheduling of service, and funding.

STUDY ORGANIZATION

The preparation of this transit development plan was a joint effort by the staffs of Waukesha County and the Southeastern Wisconsin Regional Planning Commission. Additional staff assistance was obtained as necessary from certain other agencies concerned with transit development in Waukesha County, including the Wisconsin Department of Transportation.

To provide guidance to the technical staffs in the preparation of this plan, and to more directly and actively involve concerned and affected public officials and citizen leaders in the development of transit service policies and improvement proposals, Waukesha County created the Waukesha County Mass Transit Advisory Committee. The full membership of this Committee is listed on the inside front cover of this report.

SCHEME OF PRESENTATION

This planning report consists of nine chapters. Following this introductory chapter, Chapter II, "Existing Transit System," describes the public transit system currently serving Waukesha County, providing descriptions of bus routes, schedules, equipment, fares, ridership, administrative structure, costs, and financing. Chapter III, "Land Use and Travel Patterns," presents the relevant land use, socioeconomic, and major trip generation information for Waukesha County, as well as the trip characteristics of the transit riders who currently use the transit system. Chapter IV, "Existing Transit Legislation and Regulations," summarizes the federal, state, and local legislation and regulations affecting the provision of public transit service in Waukesha County. Chapter V, "Transit Service Objectives and Standards," sets forth the objectives and supporting standards used to identify existing problems and deficiencies in transit service within the County, and to design and evaluate alternative and recommended actions to alleviate such problems and deficiencies. Chapter VI, "Transit System Performance Evaluation," evaluates the existing transit operations serving Waukesha County, identifying existing transit service problems and deficiencies. Chapter VII, "Alternative and Recommended Transit Service Changes," identifies and evaluates a series of changes that should be considered to improve the overall performance of the transit system. Chapter VIII, "Recommended Transit Plan," sets forth desirable changes in the existing transit system and describes the recommended transit development plan for Waukesha County. That chapter also identifies the actions required to be taken by each level and unit of government concerned to carry out the recommended plan in an orderly and timely manner. Chapter IX, "Summary and Conclusions," provides a summary of the significant findings and recommendations of the plan.

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Chapter II

EXISTING TRANSIT SYSTEM

This chapter documents the findings of an inventory of the public transit system currently serving Waukesha County. A brief history of Waukesha County involvement with the currently operating public transit system is provided, together with a description of the routes, equipment and facilities, and administration and management of the Waukesha County transit system, and of current ridership. Also discussed is the financing of the system. Finally, public transit services that are not part of the existing Waukesha County system, but which do provide transportation services within Waukesha County, are described.

HISTORY

Waukesha County first became directly involved in the provision of general public transit service in June 1975. In 1975, Wisconsin Coach Lines, Inc. (WCL) was providing commuter and intercity bus service between the Cities of Milwaukee, Waukesha, Oconomowoc, and Watertown. At that time, declining ridership and increasing operating costs prompted WCL to appeal to Waukesha County for financial assistance to subsidize the operating deficits of a commuter bus route operating primarily over IH 94 between the City of Waukesha and the Milwaukee central business district (CBD). As a result of this appeal, an 18-month demonstration project aimed at providing an improved level of transit service in the Waukesha-Milwaukee travel corridor was jointly sponsored by Waukesha County, the Wisconsin Department of Transportation, and Wisconsin Coach Lines, Inc. Funding for this project was provided by Waukesha County and the Wisconsin Department of Transportation.

Following the completion of the demonstration project at the end of 1976, the Waukesha County Board of Supervisors elected to continue sponsoring commuter bus service in the Waukesha-Milwaukee corridor during 1977, using federal and state transit operating assistance funds available to the County in addition to county funds. In addition to financial assistance for the bus service operated as part of the demonstration project, the agreement reached between WCL and Waukesha County included public financial subsidies to cover the operating deficits of two additional commuter bus routes operated by WCL. These two routes operated between the City of Waukesha and the Milwaukee CBD over W. Greenfield Avenue (STH 59) and between the City of Oconomowoc and the Milwaukee CBD over STH 16 and IH 94. Since 1977, financial assistance to WCL for the operation of these routes has been provided by Waukesha County.

During 1973 and 1974, embargoes by the Organization of Petroleum Exporting Countries (OPEC) on oil exports to the United States made the general public and public officials aware of the need to provide alternatives to automobile travel, especially to and from outlying suburban areas where public transit service may not exist. The cutoff of all crude oil exports to the United States by Iran in 1979 again caused motor fuel prices to increase and concerns over

motor fuel shortages to occur, prompting Waukesha County officials to consider the expansion of public transit in the County. At the request of Waukesha County, the Regional Planning Commission in 1980 completed an analysis of potential bus routes between Waukesha and Milwaukee Counties. This analysis included estimates of ridership levels, annual revenues, annual operating costs, annual subsidy requirements, energy savings, and air quality impacts for each proposed route. A report documenting the findings and recommendations of this analysis was published in July 1980.¹ The report identified seven new bus routes which could be expected to generate transit ridership between Waukesha and Milwaukee Counties. The seven new routes included four routes providing freeway flyer-type service between the central business district of Milwaukee and the Village of Menomonee Falls, the City of Brookfield, the City of Oconomowoc, and the Village of Mukwonago. The seven routes also included three routes providing local bus service over surface arterials from the Village of Butler, the Brookfield Square Shopping Center, and the New Berlin Industrial Park to Milwaukee County. The report suggested an order of priority for implementation of the seven proposed bus routes so that, should Waukesha County elect not to implement all seven routes, those routes expected to provide the greatest benefits for the level of funds committed could be implemented. Waukesha County proposed that WCL operate the seven routes on a contract basis, similar to the arrangement then existing between Waukesha County and WCL for service in the Waukesha-Milwaukee corridor. The WCL, however, expressed interest in operating only two of the new routes. Waukesha County then asked Milwaukee County to operate the remaining five new bus routes. The county transit service proposal was presented at a series of public informational meetings held throughout Waukesha County during May and June 1980, and was ultimately approved by the Waukesha County Board of Supervisors.

On April 1, 1981, county-subsidized transit service was initiated on the seven new bus routes. The new freeway flyer bus routes serving the Village of Menomonee Falls and the City of Oconomowoc, and the local bus route serving the Brookfield Square Shopping Center, were successful in attracting significant transit ridership. Of the seven potential routes, these three routes were ranked first, sixth, and third, respectively, in cost-effectiveness. However, low transit ridership resulted in the cancellation in September and October 1981 of the local bus routes serving the Village of Butler and the New Berlin Industrial Park. Low ridership resulted in the cancellation of the freeway flyer bus route serving the Village of Mukwonago in May 1983, and of freeway flyer bus route No. 78 serving the City of Brookfield at the end of December 1986. These four routes were ranked fifth, seventh, second, and fourth, respectively, in cost-effectiveness.

ROUTES AND SERVICE

As of January 1987, the Waukesha County transit system consisted of six bus routes providing primarily commuter-oriented service between Waukesha and Milwaukee Counties. Four of the routes were operated by the private company of

¹See SEWRPC Community Assistance Planning Report No. 44, Proposed Public Transit Service Improvements--1980, Waukesha County, Wisconsin, July 1980.

Wisconsin Coach Lines, Inc., and the remaining two were operated by Milwaukee County as part of its Milwaukee County Transit System (MCTS). The routes operated by WCL consisted of the three routes operated in the Oconomowoc-Waukesha-Milwaukee travel corridor which have been sponsored by the County since 1977, and a freeway flyer route operated between Oconomowoc and Milwaukee which was part of the new services initiated by the County in 1981. The routes operated by MCTS were all initiated in 1981 and consisted of a freeway flyer bus route operating between the Milwaukee CBD and the Village of Menomonee Falls, and an extension of a regular MCTS local bus route--Route No. 10, Wells-Wisconsin--to serve the Brookfield Square Shopping Center in the City of Brookfield. Map 1 shows the location of these six routes in Waukesha and Milwaukee Counties. The six routes totaled approximately 74 nonduplicated route miles within Waukesha County and 39 such route miles within Milwaukee County.

The existing service that is provided on these six routes is described in Table 1. Service schedules are primarily designed for providing weekday commuter service from Waukesha County to the central portion of the City of Milwaukee, especially to the Milwaukee CBD. Only three of the six routes provide service at times other than weekday peak periods, these being Route No. 1, Waukesha to Milwaukee via STH 59; Route No. 2, Waukesha to Milwaukee via STH 18; and Route No. 10, the Brookfield Square local route extension. The remaining four routes operate in the peak direction during weekday peak periods only. These bus routes are designed so that passengers are able to transfer between county bus routes and local bus routes operated by Waukesha Metro Transit or the Milwaukee County Transit System.

With the exception of Route No. 10, which is operated by MCTS between the Brookfield Square Shopping Center and the Milwaukee CBD as a local route, all these routes operate as express or freeway flyer routes, with significant segments of nonstop operation over freeways. The routes operated by WCL are prohibited from picking up eastbound passengers and discharging westbound passengers within Milwaukee County.

The fare structure for the two routes operated for Waukesha County by the Milwaukee County Transit System is based upon a zone and premium fare system, as shown in Table 2. Reduced fares are available for children and for the elderly, the handicapped, and student passengers with appropriate identification. Tickets and weekly passes are also available. Passengers traveling between Waukesha and Milwaukee Counties are subject to a \$0.25 additional zone fare on both routes, as well as to a \$0.20 additional premium fare on the freeway flyer route. Consequently, the base adult cash fare on the freeway flyer route serving Menomonee Falls--Route No. 79--would be \$1.65 per one-way trip. The base adult cash fare on the local route serving the Brookfield Square Shopping Center--Route No. 10--would be \$1.25.

The fare structure for the four routes operated for the County by WCL is based upon distance, as shown in Table 3. Reduced fares are available for children and for elderly and handicapped passengers with appropriate identification, except on selected weekday peak-period runs. Ten-ride commuter ticket books are also available. Passengers purchasing books of commuter tickets for transportation to Milwaukee County may also purchase a strip of 10 Milwaukee County Transit System tickets for \$4.50--a substantial discount. In addition, a special transfer program between Wisconsin Coach Lines, Inc., and Waukesha Metro Transit was implemented in March 1987 which allows Wisconsin Coach Lines

Map 1

WAUKESHA COUNTY TRANSIT SYSTEM: JANUARY 1987

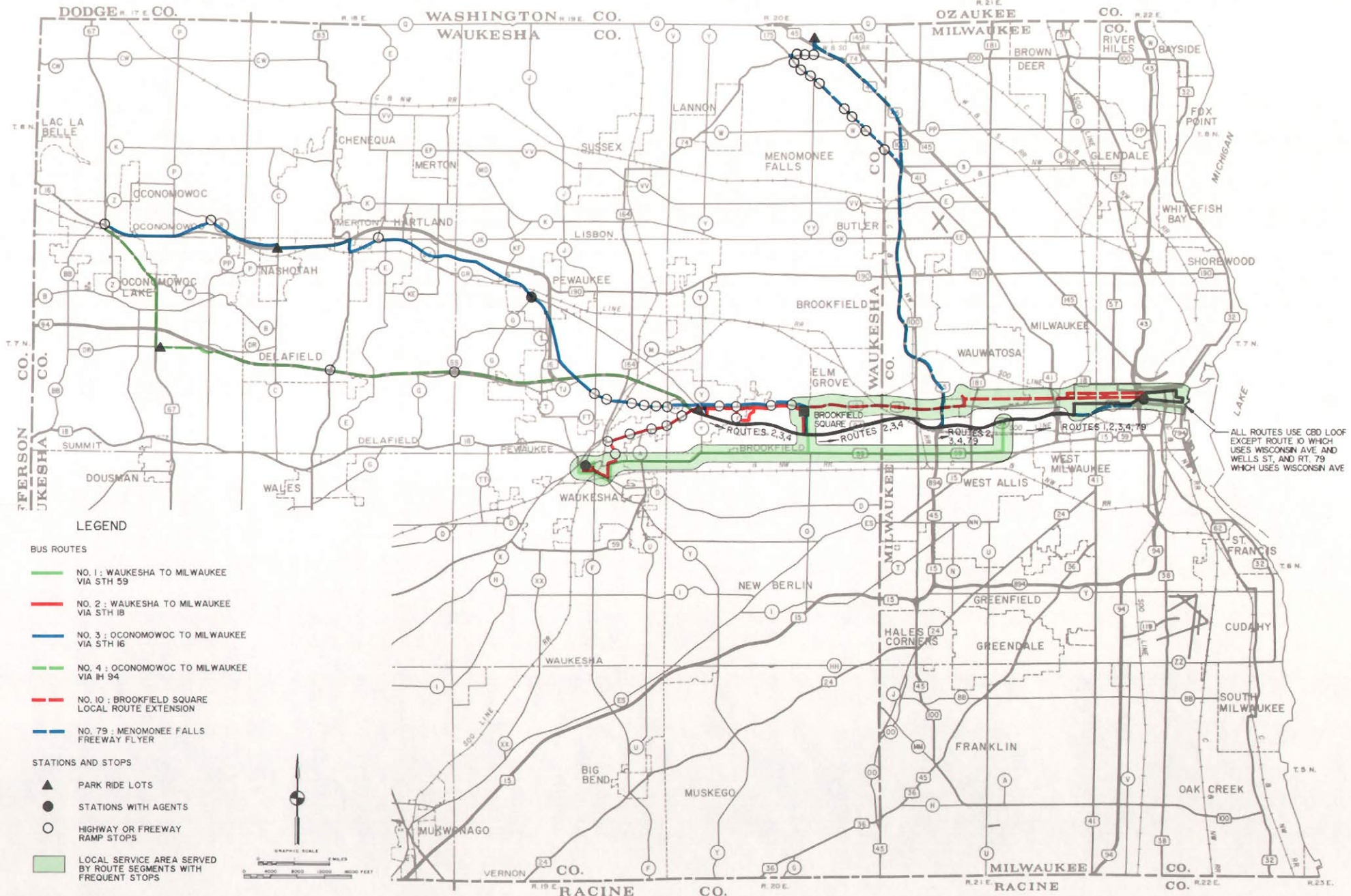


Table 1

SERVICE AND OPERATING CHARACTERISTICS BY ROUTE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: JANUARY 1987

Route	Operator	One-Way Route Length (in miles)	Days of Week	Service Frequency (number of daily round trips)			Vehicle Requirements ^a	
				Peak Period ^b	Off-peak Period ^c	Total	Peak Period ^b	Off-peak Period ^c
No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	WCL	21	Weekdays Saturdays Sundays/holidays	3.5 1.0 1.0	5.5 2.0 2.0	9.0 3.0 3.0	3 1 1	1 1 1
No. 2--Waukesha to Milwaukee via Blue Mound Road.....	WCL	20	Weekdays Saturdays Sundays/holidays	4.5 1.0 0.5	5.0 2.0 0.5	9.5 3.0 1.0	3 1 1	1 1 1
No. 3--Oconomowoc to Mil- waukee via STH 16.....	WCL	35	Weekdays	2.0	--	2.0	2	--
No. 4--Oconomowoc to Mil- waukee via IH 94.....	WCL	36	Weekdays	1.0	--	1.0	1	--
No. 10--Brookfield Square Local Route Extension.....	MCTS	10	Weekdays Saturdays	10.0 5.5	11.0 10.5	21.0 16.0	1 ^d 1 ^d	1 ^d 1 ^d
No. 79--Menomonee Falls Freeway Flyer.....	MCTS	23	Weekdays	4.0	--	4.0	3 in a.m. 4 in p.m.	-- --

NOTE: WCL = Wisconsin Coach Lines, Inc.; MCTS = Milwaukee County Transit System.

^aExcludes vehicles maintained by each transit operator as spare buses. Wisconsin Coach Lines, Inc., and the Milwaukee County Transit System assume one spare bus each for all the Waukesha County contract routes which they operate, although more vehicles would be available, if needed, from the total bus fleets maintained by each operator.

^b6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.

^c9:00 a.m. to 3:00 p.m. and 6:00 p.m. to 10:00 p.m.

^dFor service within Waukesha County only.

Source: Wisconsin Department of Transportation and SEWRPC.

and Waukesha Metro Transit passengers to receive a \$0.40 discount from the regular fare for the transit service to which they are transferring. The base adult cash fare for travel on the Wisconsin Coach Lines routes ranges from \$1.25 per one-way trip for short trips to \$3.35 for a one-way trip for the longest commuter trips, which are those between the City of Oconomowoc and downtown Milwaukee.

EQUIPMENT AND FACILITIES

As already noted, Waukesha County contracts with Wisconsin Coach Lines, Inc., and Milwaukee County to provide public transit services within the County. Thus, Waukesha County is not presently involved in the day-to-day operation, management, and support of these transit services. The buses used for the two routes operated by the Milwaukee County Transit System are standard design 44- to 53-passenger vehicles manufactured by General Motors Corporation, the Flxible Corporation, or Neoplan U.S.A. Corporation. The buses used by Wisconsin Coach Lines are intercity motor coaches manufactured by Motor Coach Industries, Inc., and suburban and intercity motor coaches manufactured by General Motors Corporation. All buses, maintenance, service, and supervisory vehicles, garage and vehicle maintenance facilities, and other support equipment are owned by either WCL or Milwaukee County. The operations and services

Table 2

**FARE STRUCTURE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM BUS ROUTES
OPERATED BY THE MILWAUKEE COUNTY TRANSIT SYSTEM: JANUARY 1987**

Classification	Cash	Tickets	Weekly Pass ^a
Regular Service Adults.....	\$1.25	10 for \$7.50 plus \$0.25 cash zone fare per one-way trip	\$7.50 plus \$0.25 cash zone fare per one-way trip
Children Ages 6-11 (Under Age 6: free when accompanied by an adult).....	\$0.75	10 for \$5.00 plus \$0.25 cash zone fare per one-way trip	--
Senior Citizens and Handicapped.... (Require valid Medicare or H.A.L.F. photo identification card if senior citizen; MCTS photo ID card if handicapped)	\$0.75	10 for \$5.00 plus \$0.25 cash zone fare per one-way trip	--
Students with Student Fare Permit..... (6:00 a.m. to 6:30 p.m., regular school days only)	\$0.90	10 for \$6.50 plus \$0.25 cash zone fare per one-way trip	--
Transfers.....	Free ^b	Free ^b	--
Freeway Flyer Service All Fare Classes.....	Applicable regular fare plus \$0.40 premium fare	Applicable regular fare plus \$0.40 premium fare	Applicable regular fare plus \$0.40 premium fare

^aGood for unlimited riding for one week.

^bIssued at time fare is paid and valid for one hour thereafter on all regular routes. Passengers transferring to freeway flyer routes from regular routes must also pay the premium fare for freeway flyer service.

Source: Milwaukee County Transit System and SEWRPC.

provided by WCL are based out of its general offices and garage located at 901 Niagara Street in the City of Waukesha. The operations and services provided by Milwaukee County are based out of the MCTS general offices at 1942 N. 17th Street and its W. Fond du Lac Avenue garage, both located in the City of Milwaukee. With the exception of three bus shelters at park-ride lots, Waukesha County owns no operating equipment or fixed facilities for the transit system, but rather has the equipment and most facilities supplied by the transit operators under the terms of the contracts involved.

Station facilities along the six existing bus routes are minimal. Bus stops along the routes operated by MCTS are marked by the system's standard "Bus Stop" signs. Along the routes operated by WCL, only some bus stops are marked by signs. The public timetable folder for the WCL routes, however, does identify the locations of regular stops. West of Waukesha County-Crites Field, stops other than those shown in the folder are made on the WCL routes for passengers "flagging" an oncoming bus when safe and practical. There are a limited number of station facilities on the Waukesha County transit system, mainly on the routes operated by WCL. These facilities are described in Table 4.

Table 3

**FARE STRUCTURE FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM BUS ROUTES
OPERATED BY WISCONSIN COACH LINES, INC.**

Termini	Cash	Commuter Tickets	5-12 Year Old Children ^a
Waukesha and Milwaukee.....	\$1.85	10 for \$16.65	\$0.95
Goerke's Corners and Milwaukee.....	1.60	10 for \$14.40	0.80
Brookfield Square and Milwaukee.....	1.35	10 for \$12.15	0.70
Waukesha and Brookfield Square.....	1.25	10 for \$11.25	0.65
Waukesha and West Allis.....	1.35	10 for \$12.15	0.70
Brookfield Square and West Allis.....	1.25	10 for \$11.25	0.65
Oconomowoc-- Summit and Milwaukee.....	3.35	10 for \$30.15	1.70
Nashotah-Okauchee, Delafield and Milwaukee...	3.00	10 for \$27.00	1.50
Nagawaukee and Milwaukee...	2.75	10 for \$24.75	1.40
Pewaukee and Milwaukee.....	2.25	10 for \$20.25	1.15
Minimum Fare.....	1.25	10 for \$11.25	0.65

^aReduced fares are also available for the elderly and handicapped. Qualified individuals must obtain ID card from the Waukesha County Department of Aging located in the Northview Home, at 25042 W. Northview Road. The reduced cash fare (one-half fare) will be honored with ID card on all schedules Saturday, Sunday, and holidays and on selected schedules Monday through Friday.

Source: Wisconsin Coach Lines, Inc., and SEWRPC.

SYSTEM ADMINISTRATION

The management and policy-making structure for the Waukesha County transit system is summarized in the organizational chart shown in Figure 1. As previously noted, Waukesha County contracts for the operation of its county-sponsored bus service with Wisconsin Coach Lines, Inc., and Milwaukee County. Under the terms of the contract between Waukesha County and the transit operators, the transit operators provide all equipment and personnel required to operate the contractual level of service for a specified cost per unit of service provided. The revenues collected from the operator of the services are used to pay for a portion of the operating expenses attributable to the services. The remainder of the operating expenses is paid by Waukesha County through a subsidy equal to the total cost of the service less the total revenue collected.

The Waukesha County Highway Department, under the direction of the Waukesha County Highway Commissioner, is responsible for administering the contractual arrangements between the County and the two transit operators. The staff of the County Highway Department is also responsible for preparing applications

Table 4

STATION FACILITIES ON THE WAUKESHA COUNTY TRANSIT SYSTEM: JANUARY 1987

Location	Routes Served	Type of Station	Station Owner	Designated Parking (number of spaces)	Maintenance Responsibility
Goerke's Corners...	Route No. 2--Waukesha to Milwaukee via Blue Mound Road Route No. 3--Oconomowoc to Milwaukee via STH 16 Route No. 4--Oconomowoc to Milwaukee via IH 94	Park-ride lot	Wisconsin Department of Transportation	250	Wisconsin Department of Transportation and Waukesha County
Waukesha.....	Route No. 1--Waukesha to Milwaukee via Greenfield Avenue Route No. 2--Waukesha to Milwaukee via Blue Mound Road	Retail store	Marty's Paint Mart	None	Private owner
Pewaukee.....	Route No. 3--Oconomowoc to Milwaukee via STH 16	Retail store	Pewaukee Rexall Pharmacy, Inc.	None	Private owner
Nashotah.....	Route No. 3--Oconomowoc to Milwaukee via STH 16	Park-ride lot	Waukesha County	50	Waukesha County
Summit Corners.....	Route No. 4--Oconomowoc to Milwaukee via IH 94	Park-ride lot	Waukesha County	80	Waukesha County
Oconomowoc.....	Route No. 3--Oconomowoc to Milwaukee via STH 16 Route No. 4--Oconomowoc to Milwaukee via IH 94	Travel agency	Top Travel Service, Inc.	None	Private owner
Menomonee Falls....	Route No. 79--Menomonee Falls Freeway Flyer	Park-ride lot	Waukesha County	70	Waukesha County

Source: SEWRPC.

for, and for administering, federal and state grants for transit operating assistance, and for preparing an annual budget as required to obtain the necessary county funding. Planning for the expansion or reduction of, or modifications to, services that are part of the Waukesha County transit system is a cooperative effort. Short-range planning activities are undertaken by the staffs of the Waukesha County Highway Department, the two transit operators, and, to the extent requested, the Regional Planning Commission. Long-range planning activities are undertaken by the Regional Planning Commission staff with assistance from the Waukesha County Highway Department staff.

Policy determinations concerning the contract transit services are made by the Waukesha County Highway and Transportation Committee, composed of five members of the Waukesha County Board of Supervisors. The Highway Commissioner serves as staff to the Highway and Transportation Committee. The approval of the Highway and Transportation Committee is required for all transit service-related policy matters, including the annual contract agreements with the transit operators; any changes to routes, service levels, or fares on the transit services; the applications for federal and state funding grants; and the annual program budget. The authority for the Committee to enter into any contract agreement is provided by the Waukesha County Board of Supervisors, which is ultimately responsible for the review and approval of the annual activities and budget of the Waukesha County transit system.

SYSTEM RIDERSHIP

As already noted, Waukesha County has sponsored public transit service in the County since mid-1975. Data on total annual ridership on the system since 1975 are given in Table 5 and are shown in Figure 2. In 1975, the annual ridership on the then-existing privately operated routes totaled 209,000. In September 1975 a county-sponsored transit demonstration project was initiated, the purpose of which was to arrest, and hopefully reverse, the declining ridership on the two routes that operated between the Milwaukee central business district and the City of Waukesha. Known as the Waukesha County Transit Demonstration Project, this project, carried out through December 1976, provided invaluable experience on which the County could base decisions relative to the continued county subsidy of the bus service. In spite of the demonstration project, the total annual ridership declined to 183,000 in 1977, largely because of the discontinuance of Oconomowoc-Watertown service in January 1977. In 1978 total annual ridership on the Waukesha County transit system declined to 182,000, but then increased to 206,000 in 1979, and to 220,000 in 1980. This gradual increase may be attributed to actions at that time by OPEC which caused the price of petroleum-based motor fuels in the United States to increase dramatically. The response by many households in southeastern Wisconsin to the increased cost of travel by private automobile was a reduction in the amount of travel by automobile and increased use of other modes of transportation, including the bus services operated in Waukesha County.

During 1981, the Waukesha County transit system experienced a significant increase in use, with annual ridership totaling 306,000. In 1982 annual ridership again increased substantially, reaching a high of 360,000. These increases may be attributed to the introduction of seven new bus routes by Waukesha County in April 1981. Several of these routes were initially very successful in attracting new ridership.

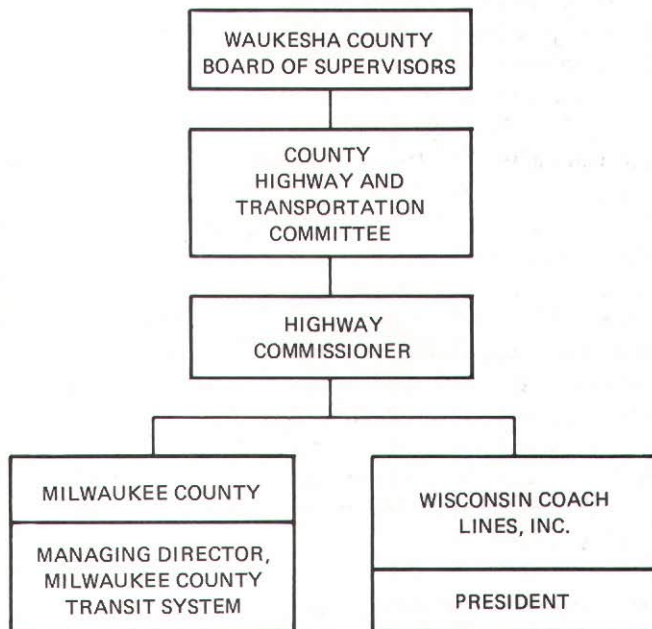
During 1983, total annual ridership on the Waukesha County transit system decreased for the first time since 1978 to 341,000. Part of the reason for this decrease was the discontinuance of the Mukwonago freeway flyer route in May 1983. Annual system ridership further decreased to 338,000 in 1984; 320,000 in 1985; and 282,000 in 1986. At the end of 1986, the Brookfield freeway flyer route was discontinued. The gradual decrease in transit ridership since 1983 may be largely attributed to the lower cost of motor fuel, which tends to promote the use of private automobiles. In spite of the recent declines, overall ridership on the Waukesha County transit system increased by 73,000, or about 35 percent, between 1975 and 1986--from 209,000 in 1975, when the County first began subsidizing the transit service, to 282,000 in 1986.

FINANCIAL SITUATION

Experience indicates that it is presently not desirable, or even possible, to cover the total cost of public transit service from passenger revenues alone. To charge fares that would completely recover the cost of operating such service would result in the diversion of choice riders to other modes of transportation, leaving the captive riders alone to bear the high cost of the service provided. If a reasonable level of transit service is to be provided at a reasonable cost to the user, such transportation must be publicly subsidized. The regular riding of the captive user alone cannot sustain the cost of supplying the community with a public transportation system.

Figure 1

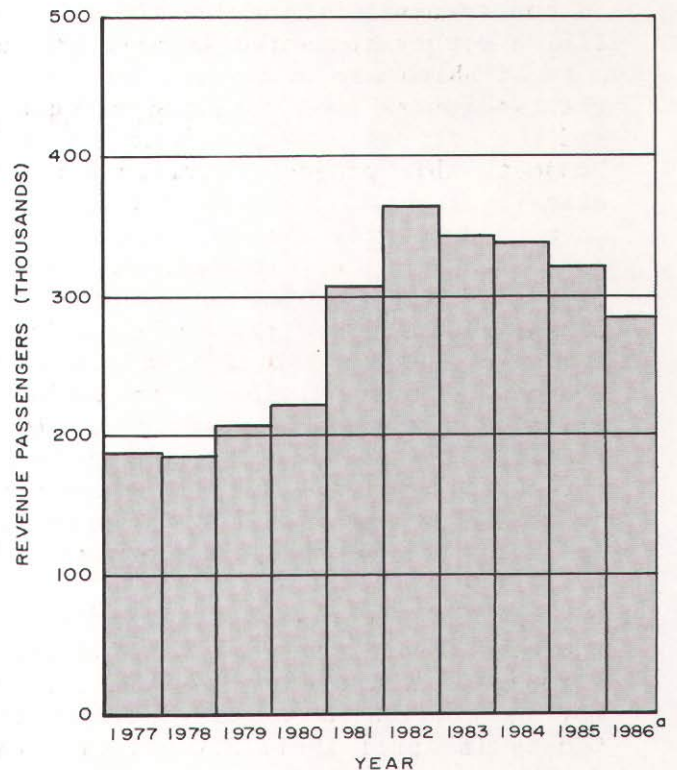
ORGANIZATION CHART FOR MANAGEMENT OF THE WAUKESHA COUNTY TRANSIT SYSTEM



Source: SEWRPC.

Figure 2

ANNUAL RIDERSHIP ON THE WAUKESHA COUNTY TRANSIT SYSTEM: 1977-1986



LEGEND

■ ANNUAL TRANSIT RIDERSHIP

^a ESTIMATED

Source: SEWRPC.

The financial condition of the Waukesha County transit system reflects the foregoing conclusion. A summary of the operating expenses, revenues, and deficits of the transit system is provided in Table 6. The total operating expenses for the Waukesha County public transit system in calendar year 1986 were approximately \$972,100. Total operating revenue from the system in the same year was about \$359,700, or about 37 percent of total system operating expenses. To cover the shortfall in operating revenues of \$612,400 during 1986, the U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), provided about \$199,500, or 33 percent of the total deficit; the Wisconsin Department of Transportation provided about \$364,600, or 59 percent of the deficit; and Waukesha County provided \$48,400, or 8 percent of the deficit.

Figure 3 depicts the total actual operating expenses for the transit system since Waukesha County began sponsorship of the system in 1977 following completion of the Waukesha County Transit Demonstration Project. During this 10-year

Table 5

**OPERATING STATISTICS FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM: 1975-1986**

Year	Annual Ridership	Revenue Vehicle Miles	Passengers per Vehicle Mile	Revenue Vehicle Hours	Passengers per Vehicle Hour
1975 ^a	209,200	293,100	0.71	13,300	15.7
1976	200,500	297,900	0.67	13,300	15.1
1977 ^b	182,700	294,200	0.62	11,200	16.3
1978	182,400	251,200	0.73	11,000	16.6
1979	206,200	255,800	0.81	11,300	18.2
1980	220,200	257,400	0.86	11,300	19.5
1981 ^{c, d}	306,300	435,200	0.70	18,900	16.2
1982	360,400	440,600	0.82	22,800	15.8
1983 ^e	341,400	395,800	0.86	18,500	18.4
1984	338,100	376,900	0.90	17,000	19.9
1985	320,500	367,000	0.87	17,700	18.1
1986 ^{f, g}	282,100	372,300	0.76	18,300	15.4

^aThe Waukesha County Transit Demonstration Project began September 8, 1975, and terminated December 31, 1976.

^bRemaining service between Oconomowoc and Watertown was discontinued on January 1, 1977.

^cNew service between the Milwaukee central business district and various Waukesha County locations began over seven routes on April 1, 1981. These include freeway flyer routes to Menomonee Falls, Mukwonago, Brookfield, and Oconomowoc, and local route extensions from Milwaukee County to Brookfield Square, Butler, and the New Berlin Industrial Park.

^dThe Butler and New Berlin local route extensions were discontinued on September 30, 1981, and October 31, 1981, respectively.

^eThe Mukwonago freeway flyer route was discontinued on May 31, 1983.

^fThe Brookfield freeway flyer route was discontinued on December 31, 1986.

^gEstimated.

Source: Wisconsin Department of Transportation and SEWRPC.

Table 6

**OPERATING EXPENSES, REVENUES, AND DEFICITS
FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: 1977-1986**

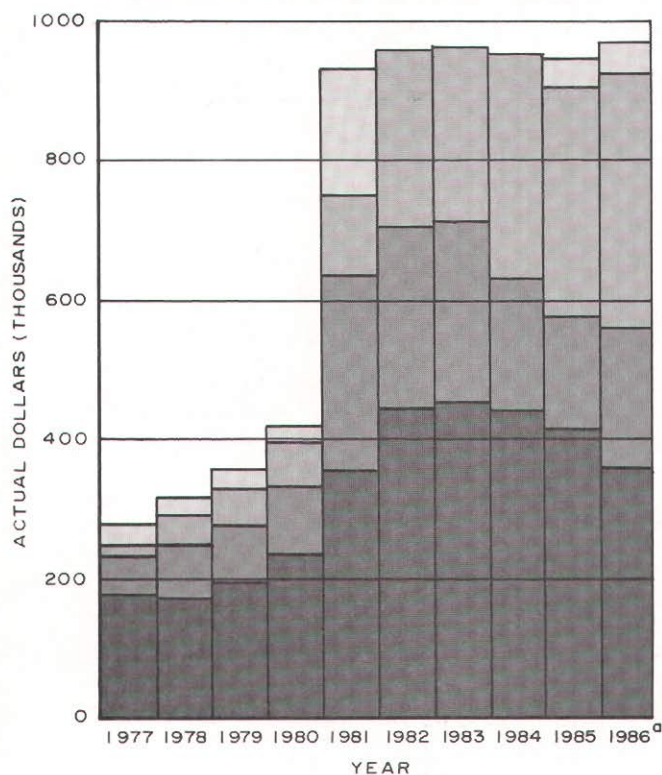
Characteristic	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986 ^a
Revenue Passengers.....	182,700	182,374	206,204	220,166	306,323	360,390	341,389	338,105	320,460	282,065
Revenue Miles.....	294,218	251,232	255,800	257,370	435,181	440,630	395,780	376,924	366,986	372,252
Operating Expenses.....	\$274,084	\$311,159	\$354,673	\$419,214	\$926,178	\$958,850	\$960,115	\$950,127	\$945,265	\$972,135
Total per Mile.....	0.93	1.24	1.39	1.63	2.13	2.18	2.43	2.52	2.58	2.61
Total per Passenger....	1.50	1.71	1.72	1.90	3.02	2.66	2.81	2.81	2.95	3.45
Operating Revenue.....	\$176,545	\$174,908	\$198,229	\$236,864	\$348,759	\$439,604	\$456,156	\$439,965	\$409,367	\$359,748
Per Passenger.....	0.97	0.96	0.96	1.08	1.14	1.22	1.34	1.30	1.28	1.28
Percent of Operating Expenses....	64.41	56.21	55.89	56.50	37.66	45.85	47.51	46.31	43.31	37.0
Operating Deficit.....	\$ 97,539	\$136,251	\$156,444	\$182,350	\$577,419	\$519,246	\$503,957	\$510,162	\$535,898	\$612,387
Total per Passenger....	0.53	0.75	0.76	0.83	1.89	1.44	1.48	1.51	1.67	2.17
Local Share.....	31,910	22,759	21,902	25,529	184,290	0	0	0	40,000	48,357
State Share.....	16,860	45,367	56,320	65,646	112,100	259,623	251,979	326,608	328,219	364,551
Federal Share.....	48,770	68,126	78,222	91,175	281,000	259,623	251,980	183,554	167,679	199,479

^aEstimated.

Source: Wisconsin Department of Transportation, Waukesha County, and SEWRPC.

Figure 3

**TOTAL ANNUAL OPERATING EXPENSE
BY SOURCE OF FUNDS FOR
THE WAUKESHA COUNTY
TRANSIT SYSTEM: 1977-1986**



LEGEND

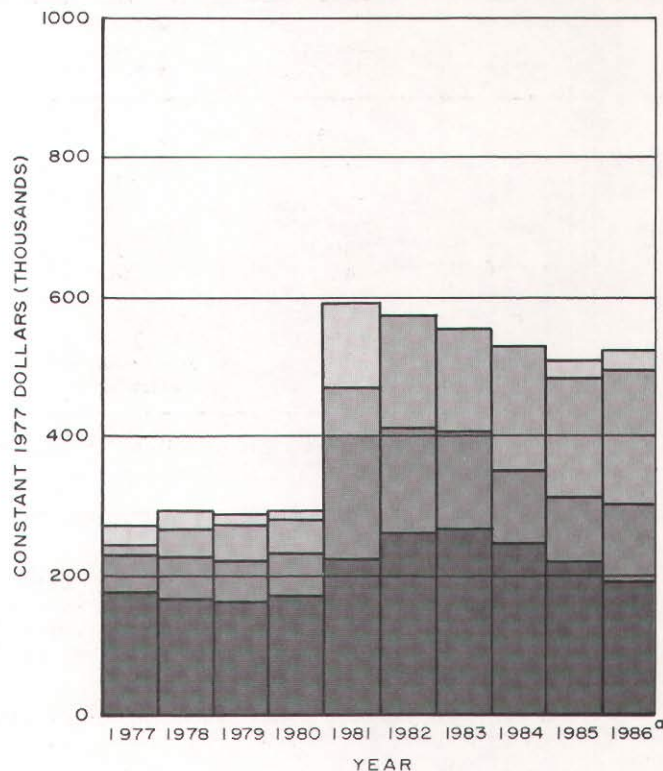
SOURCE OF FUNDING

^a ESTIMATED

Source: SEWRPC.

Figure 4

**TOTAL OPERATING EXPENSE IN
CONSTANT 1977 DOLLARS BY SOURCE
OF FUNDS FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: 1977-1986**



LEGEND

SOURCE OF FUNDING

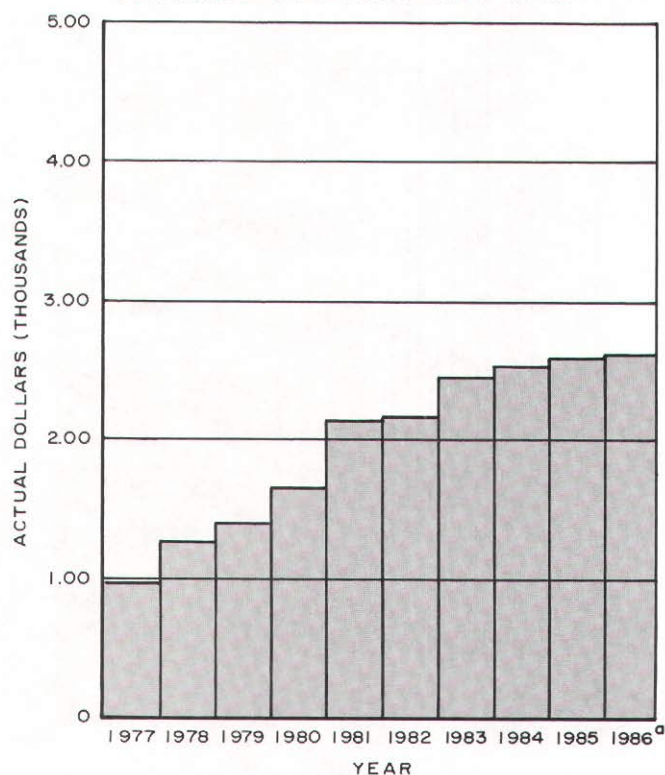
^a ESTIMATED

Source: SEWRPC.

period, actual operating expenses increased by about \$671,200, or about 250 percent--from \$274,100 in 1977 to \$972,100 in 1986. This increase in operating expenses is primarily due to the additional service provided by Waukesha County in 1981, and also to increased diesel fuel costs and increases in driver wages over this period. Figure 4 graphically depicts the operating expenses for the transit system during the 1977-1986 period in constant 1977 dollars. After accounting for the effects of general price inflation, operating expenses for the transit system during this period increased by \$247,000, or about 90 percent. Figures 5 and 6 depict the operating expense per revenue vehicle mile for the transit system during this period in actual year-of-expenditure dollars and constant 1977 dollars, respectively. While the actual operating expense per mile increased by about \$1.68 between 1977 and 1986, or by about 180 percent, the operating expense per mile in constant 1977 dollars increased by only

Figure 5

**TOTAL ACTUAL OPERATING EXPENSE
PER REVENUE VEHICLE MILE
FOR THE WAUKESHA COUNTY
TRANSIT SYSTEM: 1977-1986**



LEGEND

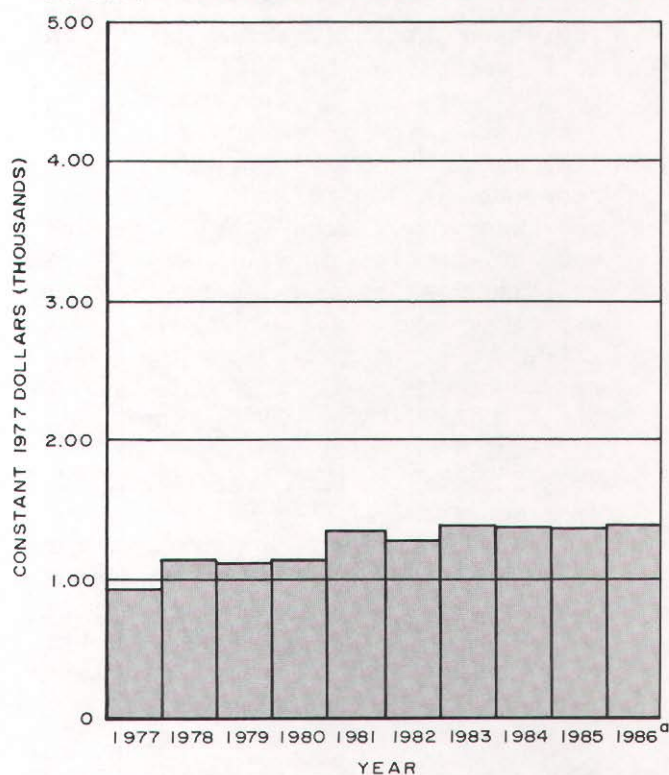
■ AVERAGE ACTUAL COST PER VEHICLE MILE

^a ESTIMATED

Source: SEWRPC.

Figure 6

**TOTAL OPERATING EXPENSE PER
REVENUE VEHICLE MILE IN CONSTANT
1977 DOLLARS FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: 1977-1986**



LEGEND

■ AVERAGE COST PER VEHICLE MILE
IN CONSTANT 1977 DOLLARS

^a ESTIMATED

Source: SEWRPC.

about \$0.47, or by about 50 percent. Total actual operating revenues increased by about \$183,200, or 104 percent--from \$176,500 in 1977 to \$359,700 in 1986. This increase in operating revenues reflects the increased ridership resulting from the system expansion in 1981, and increases in passenger fares implemented by Waukesha County since 1977. Total operating revenues in constant 1977 dollars increased by only about \$16,000, or about 9 percent, over this period.

A comparison between costs and revenues indicates that the actual operating deficit has increased substantially since the County began sponsorship of the transit system in 1977. Between 1977--the first year of county sponsorship--and 1986, the total actual operating deficit for the system increased from \$97,500 to \$612,400, an increase to about six times the 1977 operating deficit. In constant 1977 dollars, the operating deficit for the system over this period about

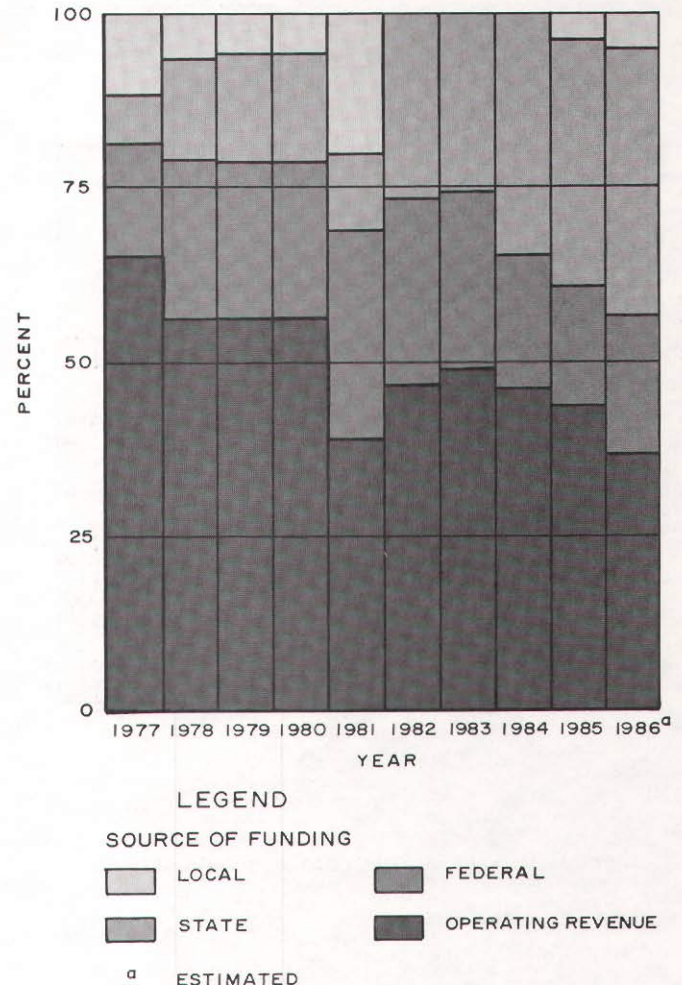
doubled, to about \$328,000. However, because of the significant increase in transit ridership and passenger revenues, the actual operating deficit per passenger did not follow this trend. The operating deficit per passenger increased steadily from \$0.53 in 1977 to \$1.89 in 1981, declined to \$1.44 in 1982, then once again increased steadily to \$1.67 in 1985 and to \$2.17 in 1986. The decrease in the operating deficit per passenger from 1981 to 1982 was a result of the increased ridership attracted by the system expansion in 1981. Overall, the actual operating deficit per passenger increased \$1.64, or about three times the 1977 operating deficit per passenger, over the 10-year period from 1977 to 1986. In constant 1977 dollars, the operating deficit per passenger increased only \$0.35, or by about 23 percent. The operating deficit per passenger increased at a lower rate than did total operating expenses during the same period.

As have virtually all publicly operated transit systems in the United States, Waukesha County has depended heavily on federal transit operating assistance to help support the operating deficit of its system. The County has also benefited from the financial assistance available from the Wisconsin Department of Transportation. Operating system funding from these two sources has served to greatly reduce the share of the

transit system operating deficit which must be paid by Waukesha County. The county share of the actual operating deficit fluctuated from 1977 to 1986 from nothing to a high of about \$184,000 in 1981, and to about \$48,000 in 1986, as shown in Figure 3. From 1977 to 1986, the local share of the operating deficit varied from 0 to 33 percent, the state share from 17 to 60 percent, and the federal share from 31 to 50 percent, as shown in Figure 7. The relative shares of the operating deficit contributed by Waukesha County, the State of Wisconsin, and the U. S. Department of Transportation have varied depending upon the method of allocating state transit operating assistance funds and the availability of state and federal funds. Figures 8 and 9 show the relative shares of the operating deficit on a per-passenger basis in actual dollars and in constant 1977 dollars, respectively.

Figure 7

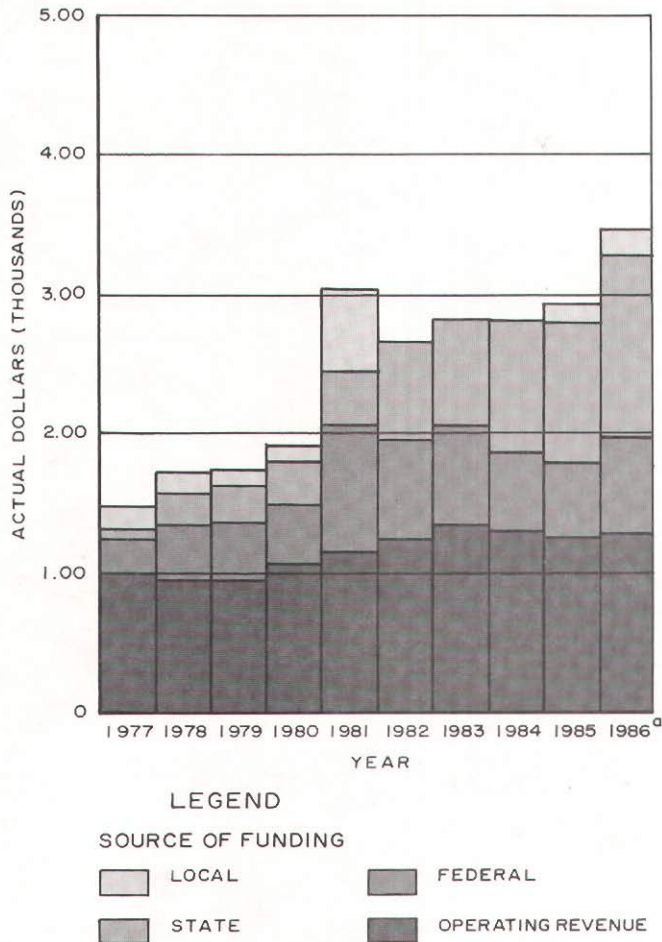
PERCENTAGE DISTRIBUTION OF TOTAL OPERATING EXPENSES AMONG FUNDING SOURCES FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: 1977-1986



Source: SEWRPC.

Figure 8

TOTAL ACTUAL OPERATING EXPENSE
PER REVENUE PASSENGER BY FUNDING
SOURCE FOR THE WAUKESHA COUNTY
TRANSIT SYSTEM: 1977-1986



LEGEND

SOURCE OF FUNDING

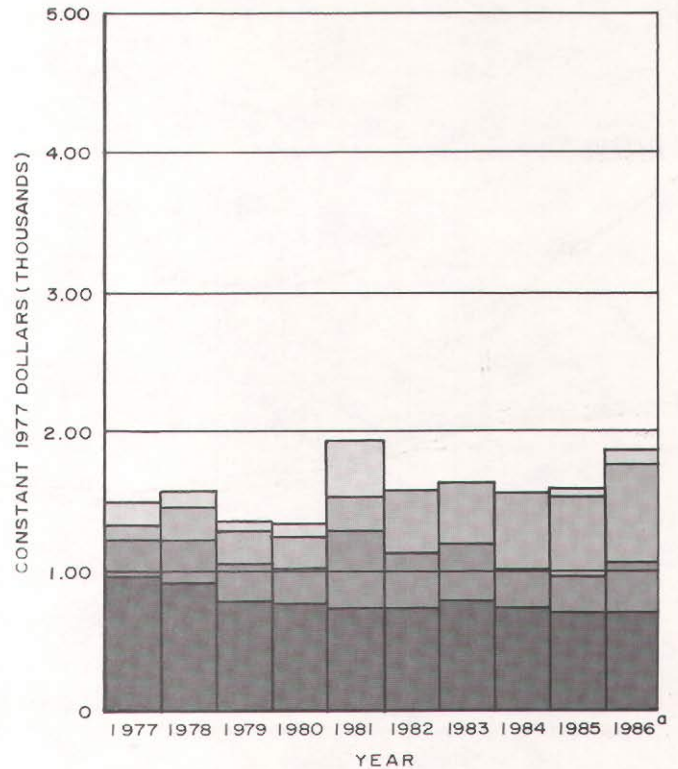


^a ESTIMATED

Source: SEWRPC.

Figure 9

TOTAL OPERATING EXPENSE PER
REVENUE PASSENGER IN CONSTANT
1977 DOLLARS BY FUNDING SOURCE
FOR THE WAUKESHA COUNTY
TRANSIT SYSTEM: 1977-1986



LEGEND

SOURCE OF FUNDING



^a ESTIMATED

Source: SEWRPC.

OTHER PUBLIC TRANSIT SERVICES

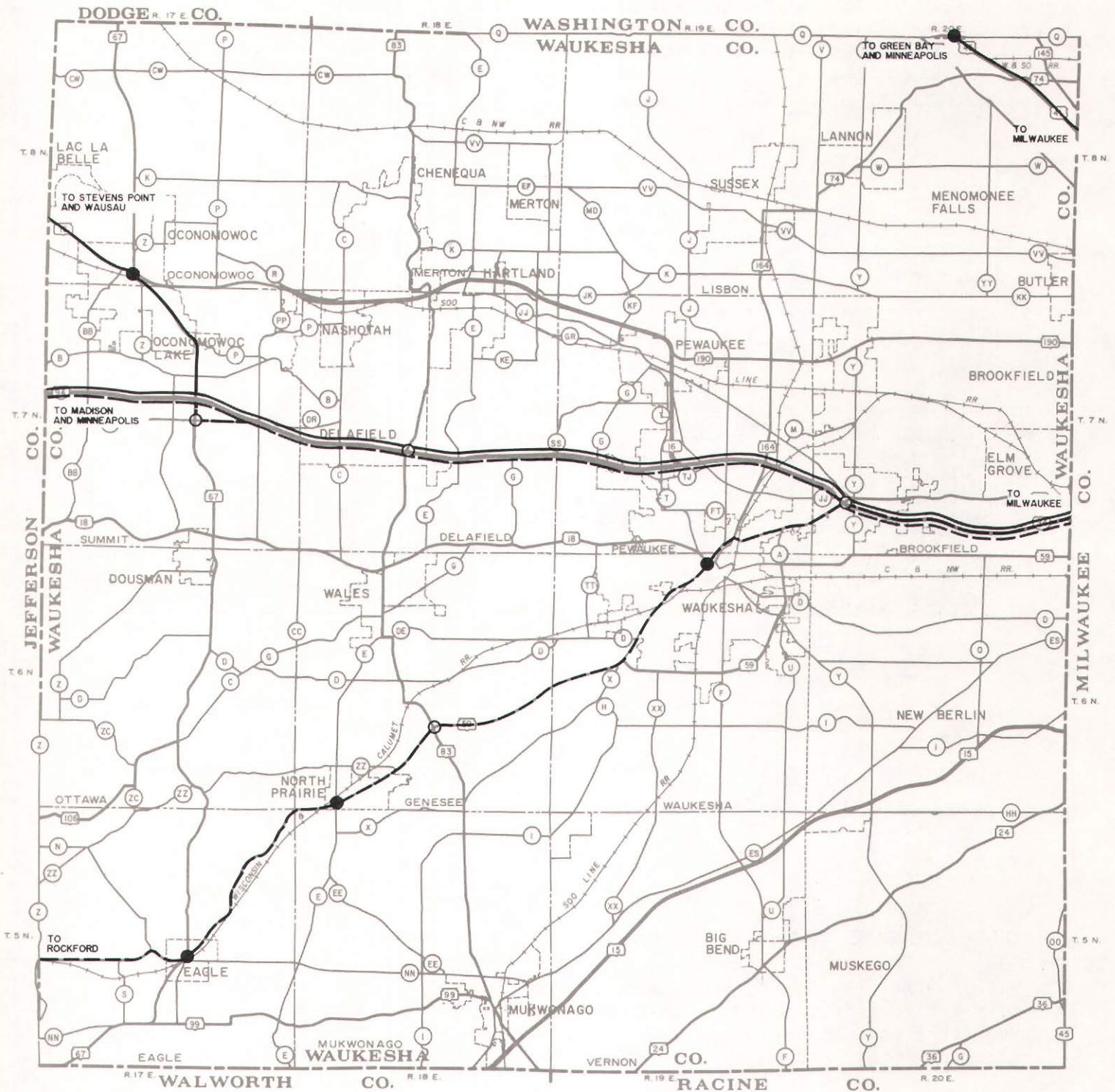
Within Waukesha County, other public transit services are provided by inter-city bus companies, Waukesha Metro Transit--the system operated by the City of Waukesha, taxicab companies, and several public and private organizations that provide specialized transportation services.

Intercity Bus Service

Long-distance intercity transportation services are provided by three private bus companies that operate routes with stops within the boundaries of Waukesha County, as shown on Map 2. These companies include Badger Coaches, Inc., Grey-

Map 2

INTERCITY BUS ROUTES WITHIN WAUKESHA COUNTY: JANUARY 1987



LEGEND

INTERCITY BUS ROUTES

- GREYHOUND LINES, INC.
- - - BADGER COACHES, INC.
- ... PEORIA-ROCKFORD BUS CO.

BUS STATIONS

- WITH AGENTS
- HIGHWAY STOPS

Source: SEWRPC.

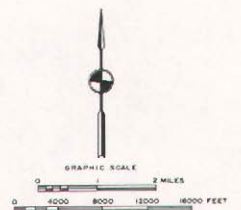


Table 7

INTERCITY BUS STATIONS AND STOPS WITHIN WAUKESHA COUNTY: JANUARY 1987

Station Name	Facility Location	Communities	Carriers Serving Station	Number of Daily Round Trips
Delafield.....	Ramp stop--IH 94 and STH 83	Delafield	Greyhound Lines, Inc.	4
Eagle.....	Eagle's service store	Eagle	Peoria-Rockford Bus Company	2
Genesee.....	Highway stop--STH 59 and STH 83	Genesee Depot	Peoria-Rockford Bus Company	2
Goerke's Corners.....	Park-ride lot--IH 94 and STH 18	Waukesha and Brookfield	Badger Coaches, Inc. Greyhound Lines, Inc.	2 6.5
Menomonee Falls.....	Rivercourt Beer & Liquor Mart	Menomonee Falls	Greyhound Lines, Inc.	2
North Prairie....	Bill's "76" Service Station	North Prairie	Peoria-Rockford Bus Company	2
Oconomowoc.....	Oconomowoc Cleaners	Oconomowoc	Greyhound Lines, Inc.	1
Summit.....	Ramp stop--IH 94 and STH 67	Oconomowoc	Badger Coaches, Inc.	3
Waukesha.....	Marty's Paint Mart	Waukesha	Peoria-Rockford Bus Company	2

Source: SEWRPC.

hound Lines, Inc., and the Peoria-Rockford Bus Company. Intercity services operated by the Trailways Bus System, Leisure Way, and Amtrak also pass through Waukesha County, although the buses and trains of these three carriers do not stop within the county boundaries.

The service provided by Greyhound Lines consists of six westbound trips and seven eastbound trips daily between Milwaukee and Minneapolis-St. Paul. Greyhound service also includes one trip daily in each direction between Milwaukee, Wausau, and Rhinelander, and one trip daily in each direction between Milwaukee and Green Bay. All the Greyhound runs operating via IH 94 stop at Goerke's Corners; and two of the westbound and three eastbound Minneapolis-St. Paul runs, as well as the Rhinelander run, stop at Delafield. One of the Minneapolis-St. Paul runs in each direction, as well as the Green Bay run, stops at Menomonee Falls. Service provided by Badger Coaches, Inc., consists of six trips daily in each direction between Milwaukee and Madison, two of which stop at Goerke's Corners in each direction, and three of which stop at Summit. Service provided by the Peoria-Rockford Bus Company consists of two trips daily in each direction plus an additional Sunday-only round trip between Milwaukee and Rockford, all of which stop at Waukesha, Genesee Depot, North Prairie, and Eagle.

The service provided by these bus carriers is intended to accommodate long-distance trips, and the schedules, therefore, do not well accommodate commuter travel between Waukesha County and Milwaukee County. The stations and stops within Waukesha County for these intercity bus services are identified in Table 7 and shown on Map 2.

Waukesha Metro Transit

The only local urban public transit system operating within Waukesha County is the Waukesha Metro Transit system. This system consists of regularly scheduled local bus service operating Monday through Saturday over eight fixed routes, totaling approximately 106 route miles, as shown on Map 3. The eight bus routes are primarily radial in design, with only minor portions of these routes operating outside the City's corporate limits. During weekday peak periods, the system operates a maximum of 12 buses out of its total active fleet of 14 buses. The City of Waukesha Transit System Utility owns the equipment and

FIXED-ROUTE BUS SERVICE PROVIDED BY
WAUKESHA METRO TRANSIT: JANUARY 1987

R. 19 E. R. 20 E.



facilities used in the operation of this transit system, but contracts with the private management firm of ATE Management & Service Company, Inc., to provide the day-to-day operations of the system. The General Manager of the private management firm is responsible to the Transit Coordinator in the City of Waukesha Department of Public Works. The Transit Coordinator, in turn, is responsible to the Waukesha Transit System Utility Board and the City of Waukesha Common Council. Local transit service provided by Waukesha Metro Transit is essentially limited to the City of Waukesha and immediate environs.² The Waukesha Metro Transit service area includes about 53,000 residents, or about 18 percent of the total Waukesha County population of 288,100.

The City of Waukesha has operated local bus service within the City and immediate environs since August 1981. Annual ridership has continually increased, from 203,000 in 1982--the first full calendar year of operation for the system --to 407,000 in 1985. In 1986, annual ridership decreased to 378,000. Ridership levels in 1986 had exceeded the ridership forecast of 264,000 for the fifth year of system operation, as presented in the transit development program.

The current fare on Waukesha Metro Transit is \$0.60 for adults and \$0.40 for students age five through high school ages. Children age four and under ride free when accompanied by an adult. The fare for senior citizens and disabled persons is \$0.30 with proper identification. Transfers between routes are free, and tickets and monthly passes are available. As previously noted in this chapter, Wisconsin Coach Lines, Inc., and Waukesha Metro Transit have implemented a special transfer program which allows passengers transferring between the two bus systems to receive a discount of \$0.40 from the regular fare of the service which they are transferring to.

Taxi Service

There are currently three taxicab companies that serve Waukesha County: Best Cab Company and Checker/Yellow Cab Company, both based in the City of Waukesha, and Oconomowoc Taxi Company based in the City of Oconomowoc. Taxi service in the City of Waukesha and the City of Oconomowoc operates on a shared-ride basis, where more than one fare may occupy the cab at the same time. All three taxicab companies charge fares based on a zone system under which the passenger pays a total fare based on the number of zones traveled through. In 1986, total ridership on all three taxicab companies was about 40,000 passengers.

Specialized Transportation Services

Several public and private organizations and social service agencies provide specialized transportation services to certain population groups within Waukesha County. In general, the services do not use fixed routes or regular schedules, providing service on demand so long as the trips to be made are by Waukesha County residents; are requested in advance; are to be made within the hours of operation of the particular service; and have origins and destinations within Waukesha County. These services are intended for the use of elderly or handicapped individuals.

²See SEWRPC Community Assistance Planning Reports No. 31, Waukesha Area Transit Development Program 1981-1985, February 1980; No. 83, A Transit System Operations Analysis for the City of Waukesha Transit System, February 1983; and No. 154, City of Waukesha Transit Plan: 1988-1992, 1988.

In the areas of Waukesha County outside the City of Waukesha, the Waukesha County Department of Aging is the principal provider of specialized transportation services. The Department provides such services through six different projects to those eligible Waukesha County residents who cannot walk or who require assistance with walking. These include: 1) the Ride Line transportation project; 2) the user-side subsidy transportation project; 3) the parallel commuter bus transportation project; 4) the PM Ride Line project; 5) the Oconomowoc localized bus transportation project; and 6) the volunteer driver-escort project. Table 8 describes the sponsor, service provider, hours of service, service area, type of vehicles used, eligible users, and fare for each of these six services. During 1986, these services carried an estimated 63,000 one-way trips.

The Ride Line and user-side subsidy transportation projects both utilize state funding assistance under Section 85.21 of the Wisconsin Statutes together with local funding. The parallel commuter transportation project, the PM Ride Line, the Oconomowoc localized bus transportation project, and the volunteer driver-escort project are funded solely by Waukesha County. The Waukesha County Advisory Committee on Aging, composed of citizen members, and the Waukesha County Agriculture and Resource Committee, composed of elected County Board supervisors, are responsible for establishing policies for the specialized transportation services provided by Waukesha County.

Within the City of Waukesha, the Waukesha Metro Transit system provides accessible public transit service through its Metrolift program. Metrolift is a specialized transportation service designed to provide mobility to handicapped persons unable to use the City's regular fixed-route bus service. To provide this service, the City contracts with a private company which offers a door-to-door lift-equipped bus service to handicapped individuals within the service area of the regular fixed-route system. This service is provided on an advance-reservation basis, with eligible users required to call at least 24 hours in advance of the time service is needed. This service is available from 6:15 a.m. to 6:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturdays. Certification for using Metrolift is required, and is performed by a physician or approved agency. The fare for a one-way trip on Metrolift is \$1.75 each for the user and any necessary attendant. A total of 3,950 one-way trips were made by handicapped persons on the Metrolift program during 1986.

In the City of Waukesha transit service area, both Waukesha Metro Transit and the County Department of Aging refer elderly and handicapped passengers to the transit service provider which is judged best able to meet the transportation needs of the individual passenger. The County Department of Aging also recommends that, if possible, all City of Waukesha residents eligible for specialized transportation projects offered by the County use the regular Waukesha Metro Transit service when available instead of the county-sponsored services.

The County Department of Aging accepts transportation referrals from, and makes transportation referrals to, three other nonprofit agencies that provide specialized transportation services throughout Waukesha County. These three agencies are La Casa de Esperanza, Red Cross, and the Retired Senior Volunteer Program (RSVP). La Casa de Esperanza provides accessible specialized transportation using agency vehicles and staff, while the Red Cross and RSVP primarily provide nonaccessible transportation through the use of volunteer staff. The Retired Senior Volunteer Program is used by the Department of Aging to provide

Table 8

SPECIALIZED TRANSPORTATION SERVICES PROVIDED BY WAUKESHA COUNTY DEPARTMENT OF AGING: JANUARY 1987

Name of Service or Program	Service Sponsor	Service Provider	Hours of Service
Ride Line.....	Waukesha County Department of Aging	Waukesha County Department of Aging	Monday through Friday 8:00 a.m.-4:30 p.m.
User-Side Subsidy.....	Waukesha County Department of Aging	Best Cab Company; Checker Cab Company and Yellow Cab of Waukesha; Oconomowoc Taxi Company	Every day 24 hours Monday through Saturday 8:00 a.m.-6:00 p.m.
Parallel Commuter Bus Transportation.....	Waukesha County Highway Department	Waukesha County Department of Aging	Monday through Friday 8:00 a.m.-4:30 p.m.
PM Ride Line.....	Waukesha County Department of Aging	Waukesha County Department of Aging	Wednesday and Friday 4:30 p.m.-10:30 p.m. Saturday 2:00 p.m.-10:30 p.m.
Oconomowoc Localized Bus Transportation.....	City of Oconomowoc and the Department of Aging	Oconomowoc Transport Company	Tuesday and Friday 9:30 a.m.-1:30 p.m.
Volunteer Driver-Escort....	Waukesha County Department of Aging	Retired Senior Volunteer Program (RSVP)	By special arrangement

Name of Service or Program	Service Area	Vehicles Used	Eligible Users	Fare per Trip
Ride Line.....	Waukesha County	Wheelchair-accessible vans and mini-buses	Waukesha County residents; elderly 60 and older and handicapped 18 and older who live in own home or apartment ^a	\$1.00 for intra-municipality trips; ^b \$2.00 for inter-municipality trips
User-Side Subsidy.....	City of Waukesha City of Oconomowoc	Taxicabs	Waukesha County residents age 65 and older and all physically or developmentally disabled receiving social security disability income ^c	Distance-related minus \$1.25 subsidy
Parallel Commuter Bus Transportation.....	Two-mile-wide corridor centered on Wisconsin Coach Lines, Inc., routes within Waukesha County	Wheelchair-accessible vans and mini-buses	All handicapped Waukesha County residents 18 years of age and older who would normally use the regular bus service if it were accessible	Distance-related
PM Ride Line.....	Waukesha County	Wheelchair-accessible vans and mini-buses	Waukesha County residents 18 and over who are physically disabled or legally blind	\$1.00 for intra-municipality trips; \$2.00 for intermunicipality trips
Oconomowoc Localized Bus Transportation.....	City of Oconomowoc	School bus	City of Oconomowoc residents who are ambulatory and 60 or over	\$1.00
Volunteer Driver-Escort....	Waukesha and surrounding counties	Automobiles	Elderly and nonelderly handicapped Waukesha County residents who are ambulatory	Donation

^aAlso other passengers who are neither elderly nor handicapped when space is available.

^b\$1.00 donation for nutrition-related trips.

^cIndividuals limited to eight subsidized one-way trips per month, except for additional medical-related trips when sufficient project funding is available and when authorized by the Paratransit Program Coordinator.

Source: Waukesha County Department of Aging and SEWRPC.

transportation to able-bodied elderly persons and semi-ambulatory handicapped persons under the volunteer driver escort project administered by the Department.

SUMMARY

As of January 1987, the Waukesha County transit system consisted of six bus routes providing primarily commuter-oriented service between the Milwaukee central business district and various portions of Waukesha County. To provide this service, Waukesha County held contracts with Wisconsin Coach Lines, Inc., and Milwaukee County for the day-to-day operation, management, and support of these services. Two Milwaukee-Waukesha routes and two Milwaukee-Oconomowoc

routes were being operated by Wisconsin Coach Lines. A Milwaukee-Memmonomee Falls freeway flyer route and a Milwaukee-Brookfield Square Shopping Center local bus route were being operated by Milwaukee County through the Milwaukee County Transit System. These six routes totaled approximately 145 one-way route miles. Most of the service provided on these routes was being operated during weekday peak travel periods.

Waukesha County first became directly involved in the provision of public transit service in June 1975, when it contributed toward the cost of providing some Milwaukee-Waukesha service under a one-and-one-half-year demonstration project aimed at improving transit service in this travel corridor. Following completion of the project at the end of 1976, Waukesha County elected to continue subsidizing commuter bus service between Waukesha and Milwaukee Counties with the aid of federal and state transit operating assistance funds. In 1981, transit service was expanded to seven new bus routes between various locations in Waukesha County and the Milwaukee central business district. Some of these new lines were subsequently abandoned because of low ridership. Annual ridership on the Waukesha County transit system increased from 183,000 in 1977 to a high of 360,000 in 1982. In 1986, annual ridership on these routes was 282,000. Operating expenses for the system increased from about \$274,000, or \$1.50 per passenger, in 1977, to about \$972,000, or \$3.45 per passenger, in 1986. The operating deficit increased from about \$98,000, or \$0.53 per passenger, in 1977, to about \$612,000, or \$2.17 per passenger, in 1986. The County's share of this deficit has fluctuated from nothing to about \$0.60 per passenger, with the 1986 county share estimated at \$0.12 per passenger, or about 8 percent of the total deficit. Operating revenue for the transit system represented about 37 percent of total operating expenses in 1986, compared with about 64 percent in 1977.

The Waukesha County Board of Supervisors has the ultimate responsibility for establishing policy governing the operation of the county transit system, including the annual budget and annual program. The policy decisions concerning the services are made by the Waukesha County Highway and Transportation Committee. The Waukesha County Highway Department is responsible for administering the contract agreements between the County and the two transit operators. Because the day-to-day management and operation of these services are provided by the two transit operators, Waukesha County owns no operating equipment or facilities with the exception of three bus shelters located at three county-owned park-ride lots.

There are other public transit services provided within Waukesha County which are coordinated with the services provided by the Waukesha County transit system to varying degrees. Long-distance intercity bus service is provided by three different carriers, with buses having stops within Waukesha County being operated between Milwaukee and Madison, Rockford, Minneapolis-St. Paul, and Wausau. Within the City of Waukesha and immediate environs, local urban public transit service is provided by Waukesha Metro Transit--the city transit system--over eight fixed routes totaling approximately 106 route miles. Taxicab service is also available in and around the Cities of Waukesha and Oconomowoc. Also, several specialized transportation services, intended to serve the needs of elderly and handicapped individuals, are operated by or coordinated through the Waukesha County Department of Aging. In general, these specialized services do not utilize fixed routes or regular schedules, providing service on demand within Waukesha County.

Chapter III

LAND USE AND TRAVEL PATTERNS

INTRODUCTION

In order to properly evaluate the transit services currently provided within Waukesha County, and to consider potential transit service improvement and expansion, it is necessary to consider those factors which affect, or are affected by, the provision and use of transit service. These factors include the land use pattern and density and the size and distribution of population and employment in the County. Also, the travel habits and patterns of the resident population of the County must be carefully considered. This chapter presents the results of an inventory and analysis of these important determinants of the need for transit service in Waukesha County.

LAND USE

The pattern of urban growth in Waukesha County and the Southeastern Wisconsin Region from 1850 through 1980 is depicted on Map 4. From 1850 to 1940, urban development within the County occurred in relatively tight concentric rings outward from what were then the small urban centers in the County, such as the City of Waukesha, the City of Oconomowoc, and the Village of Menomonee Falls. However, following 1940 a dramatic change occurred in this pattern of urban development. Between 1940 and 1950, substantial development began to occur along the shorelines of the lakes in the far western portions of the County, and much of the new urban development became discontinuous and diffused, occurring in scattered enclaves. This latter trend was particularly apparent in the 1970's. Another important development trend which began in the 1950's was development in the eastern portion of the County as part of the historic outward growth of the Milwaukee urbanized area.

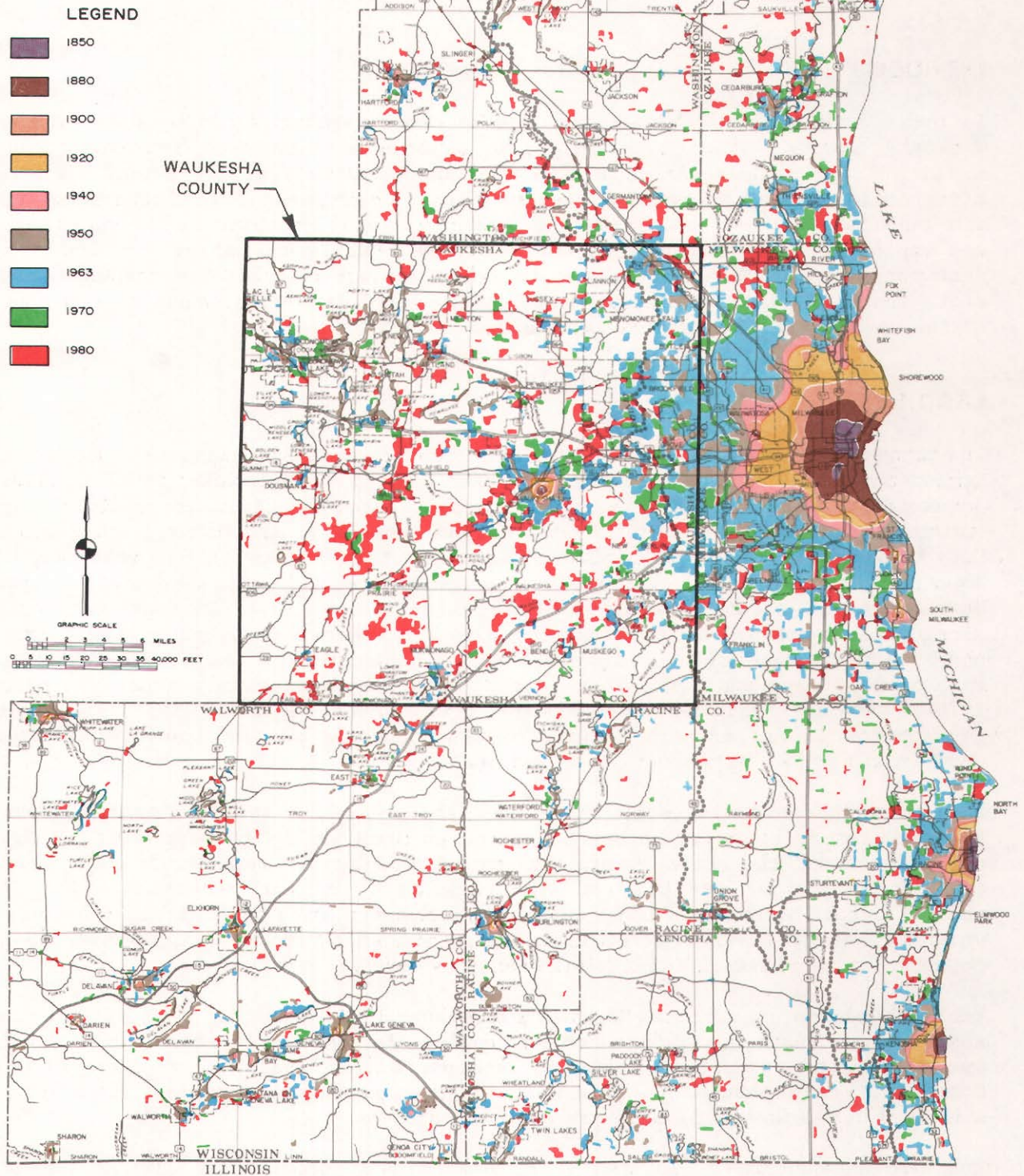
An important conclusion with respect to the potential for transit facilities and services in Waukesha County can be drawn from Map 4. Specifically, the City of Waukesha and the northeastern portion of the City of New Berlin, the east-central portion of the City of Brookfield, and the north-central portion of the Village of Menomonee Falls are the only substantial areas within the County which are fully developed for urban uses, and which therefore may have a good potential to support efficient local transit service.

Table 9 and Map 5 set forth the distribution of land uses in 1980 within Waukesha County. As shown in the table, single- and two-family residential development was the predominant type of land use within the urban portion of the County. It is important to note that, despite rapid urbanization, most of the land within the County is still in open, rural uses.

The overall pattern of intensity, or density, of urban land use in 1985 in Waukesha County is shown on Map 6. This map indicates the density of residential land use in the County and the density of other urban land use activity,

Map 4

URBAN GROWTH IN THE SOUTHEASTERN WISCONSIN REGION



including commercial and industrial land uses. High-density land uses and substantial areas of medium-density land uses exist only in the City of Waukesha and the lands abutting Blue Mound Road (USH 18) generally west of Moorland Road in the City of Brookfield. Such land use densities are necessary to support efficient local transit service.

POPULATION AND EMPLOYMENT

The estimated 1985 resident population of Waukesha County was 286,000 persons. As shown in Table 10, the population in Waukesha County increased rapidly in the period 1950 to 1980. This very high rate of growth appears to have moderated between 1980 and 1985.

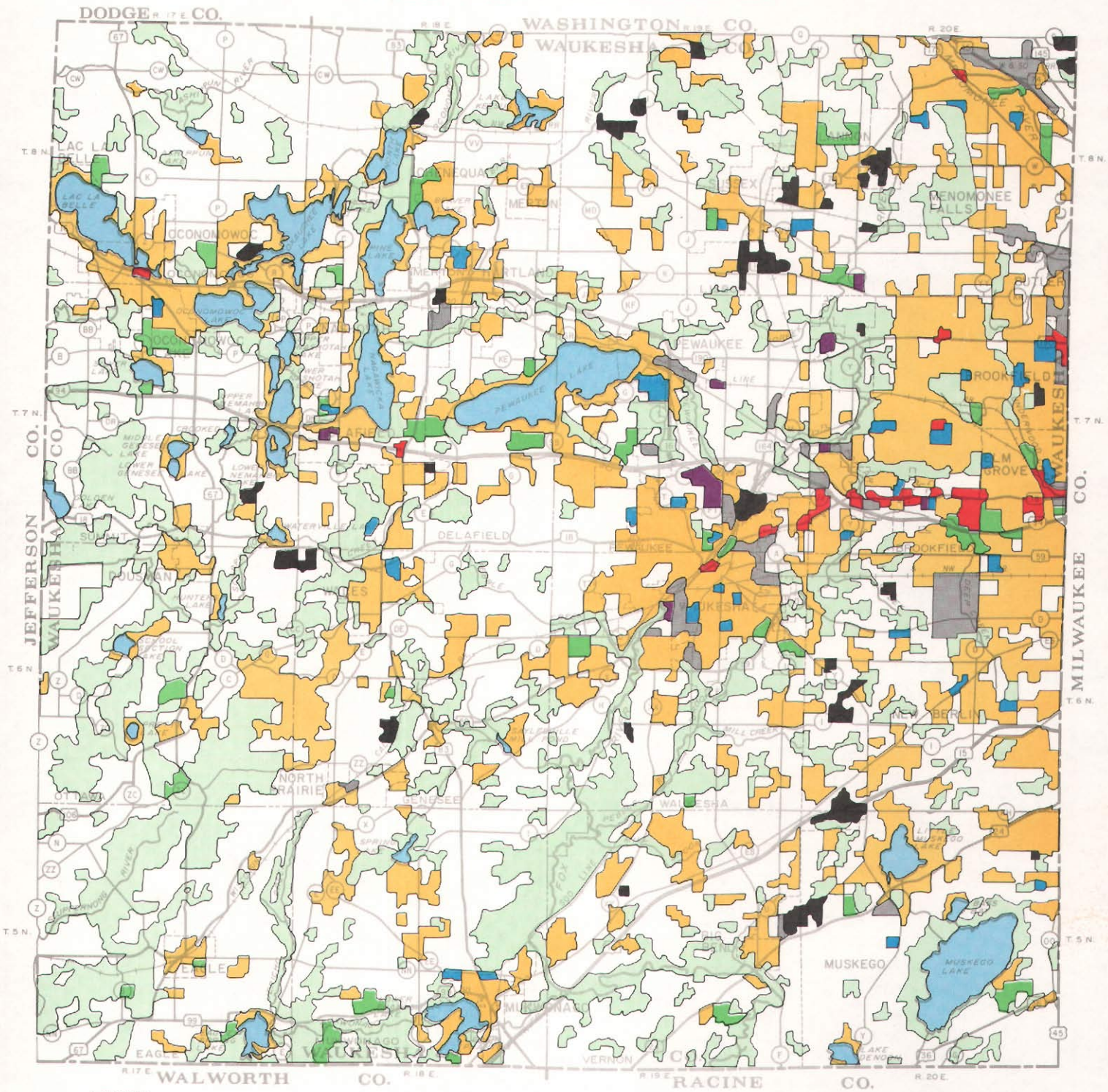
The density of the population in Waukesha County, measured in terms of persons per square mile, is shown on Map 7. As may be expected, the information shown for population density is consistent with the previous information on generalized land use density. Accordingly, Map 7 indicates that substantial areas of medium to high population density exist only in the City of Waukesha, and thus this area has the highest potential to support local transit service.

Table 11 indicates the historic change in the number of households in Waukesha County over the period 1950 to 1985. The percentage increases in the number of households of 80 percent over the period 1950 to 1960 and 46 percent over the period 1960 to 1970 are very similar to the percentage increases in county population over the same period of 84 percent from 1950 to 1960 and 46 percent from 1960 to 1970. However, over the period 1970 to 1980, the number of households in the County increased much more rapidly than did the resident population. The number of households within the County increased by 43 percent from 1970 to 1980, while the population increased by only 20 percent. Between 1980 and 1985, the number of households within the County increased from 88,552 to 93,179, an increase of 4,627 households, or about 5 percent. Travel in urban areas is more strongly related to the number of households than to the size of population, since the number of households is a better indicator of the size of the labor force, and hence the amount of work travel, as well as other travel, including that for shopping and personal business purposes.

An important population characteristic with respect to transit use is income, because, generally, greater use of public transit is made by persons from families with lower incomes. This is particularly true of local transit service. Express and rapid transit service generally serve work trips only, and for Waukesha County is focused on trips to the central business district of Milwaukee made during normal work starting and ending hours. Table 12 summarizes the change in median family income levels in Waukesha County over the period 1950 to 1980 in both actual and constant dollars. Over that period, both actual and constant dollar family income increased steadily except between 1970 and 1980, when median family income increased only moderately in constant dollars. Map 8 shows the median family income in 1980 for each municipality in Waukesha County. The median family income in Waukesha County in 1980 ranged from a low of \$21,833 in the Village of Pewaukee to \$49,018 in the Village of Chenequa. The median family income levels of most municipalities were within 15 percent of the Waukesha County median family income in 1980 of \$27,648.

Map 5

WAUKESHA COUNTY LAND USE: 1980



LEGEND

PREDOMINANT LAND USE

- | | |
|--|---|
| RESIDENTIAL | GOVERNMENT AND INSTITUTIONAL |
| COMMERCIAL | WOODLAND AND WETLAND |
| INDUSTRIAL | PARK |
| EXTRACTIVE AND LANDFILL | MAJOR LAKE |
| TRANSPORTATION, COMMUNICATION AND UTILITIES | AGRICULTURAL AND OPEN SPACE |

Source: SEWRPC.



Table 9

DISTRIBUTION OF LAND USE IN WAUKESHA COUNTY: 1980

Land Use Category	Area (acres)	Percent of Land Use Area	Percent of Total Study Area
Urban			
Single- and Two-Family Residential.....	49,890	54.8	13.4
Multiple-Family Residential.....	688	0.8	0.2
Residential Land Under Development.....	2,958	3.3	0.8
Commercial.....	1,832	2.0	0.5
Manufacturing and Wholesale Industrial.....	2,139	2.4	0.6
Transportation, Communication, and Utilities.....	24,338	26.8	6.6
Governmental and Institutional.....	3,498	3.8	0.9
Recreational.....	5,583	6.1	1.5
Subtotal	90,926	100.0	24.5
Rural			
Agricultural and Open Lands.....	180,137	64.2	48.5
Woodlands and Wetlands.....	80,705	28.7	21.7
Extractive Industrial.....	3,068	1.1	0.8
Surface Water.....	16,753	6.0	4.5
Subtotal	280,663	100.0	74.5
Total	371,589	--	100.0

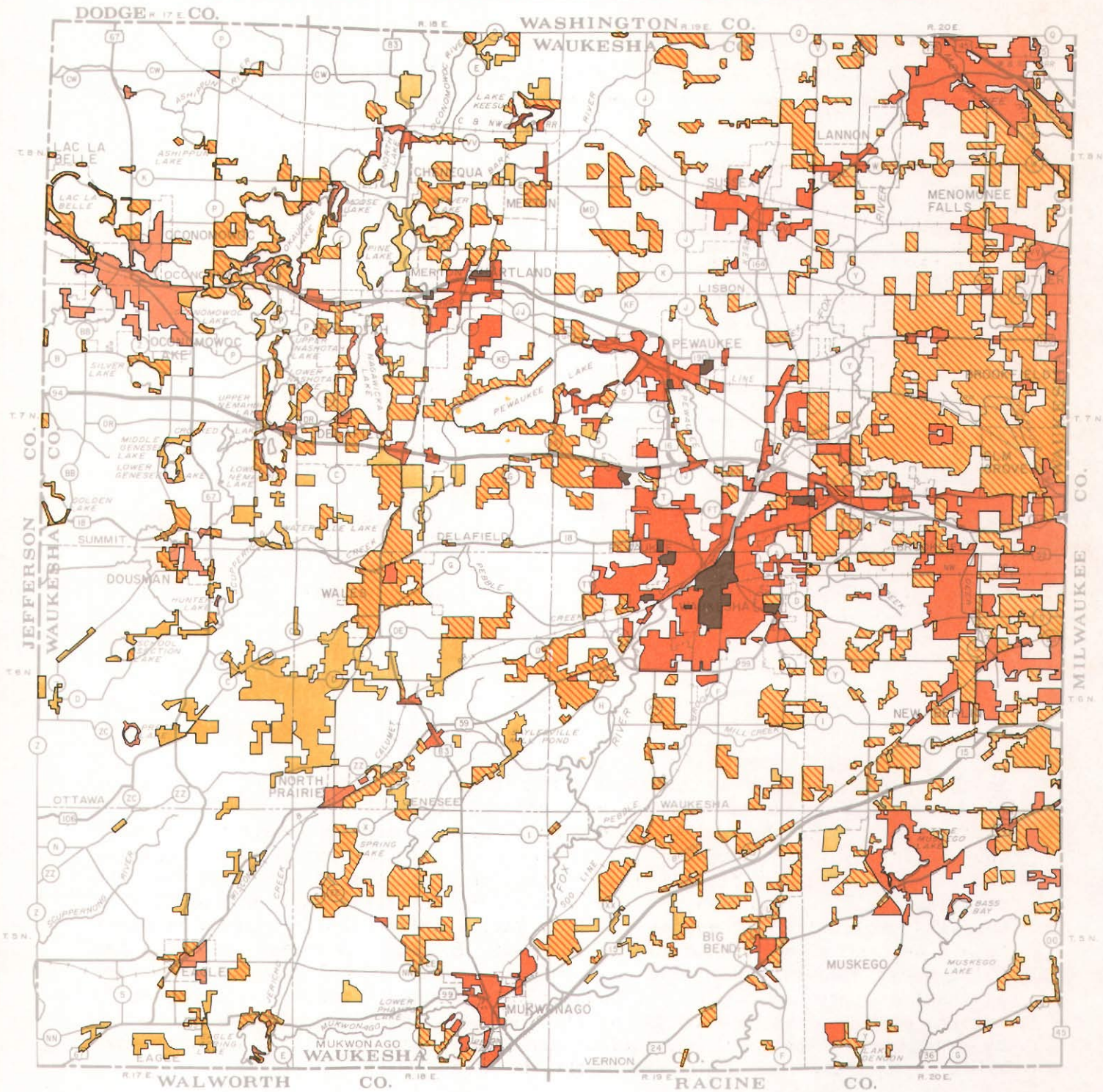
Source: SEWRPC.

Another particularly important population characteristic with respect to transit use is the number of vehicles available to households for travel. Particularly important is the number of households with no vehicles available, as such households may be expected to rely heavily on public transit to meet their travel needs. For example, it is estimated that members of households with no vehicles available accounted for 23 percent of all trips made on the City of Waukesha public transit system in 1982. Yet, such households represented less than 8 percent of all households in the City. In 1980, there were an estimated 3,150 households with no vehicles available in Waukesha County, or 4 percent of the total households; 22,035 households with one vehicle available, or 25 percent of the total households; 42,696 households with two vehicles available, or 48 percent of the total households; and 20,671 households with three or more vehicles available, or 23 percent of the total households.

Map 9 identifies the number of households with no vehicles available for travel for each municipality in Waukesha County. The most substantial concentration of households with no vehicles available is located in the City of Waukesha, which has about 1,350, or about 43 percent, of the estimated 3,150 such households in the County. No other community has a concentration of such households approaching that level, the closest being the Village of Menomonee Falls with 356 households with no vehicles available, and the City of Oconomowoc with 277 households with no vehicles available. Therefore, in Waukesha County, the City of Waukesha has the greatest existing need for public transit.

Map 6

WAUKESHA COUNTY GENERALIZED LAND USE DENSITY: 1985



LEGEND

- SUBURBAN RESIDENTIAL (0.2-0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- LOW DENSITY RESIDENTIAL (0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MEDIUM DENSITY RESIDENTIAL (2.3-6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- HIGH DENSITY RESIDENTIAL (7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)

Source: SEWRPC.

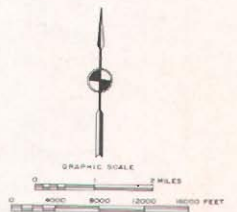


Table 10

POPULATION LEVELS OF CITIES, VILLAGES, AND TOWNS IN WAUKESHA COUNTY: 1950, 1960, 1970, 1980, AND 1985^a

Civil Division	1950	1960	1970	1980	1985	Change: 1950-1960		Change: 1960-1970		Change: 1970-1980		Change: 1980-1985	
						Number	Percent	Number	Percent	Number	Percent	Number	Percent
Cities													
Brookfield ^b	--	19,812	31,761	34,035	33,288	19,812	--	11,949	60	2,274	7	-747	-2
Delafield ^c	--	2,334	3,182	4,083	4,512	2,334	--	848	36	901	28	429	11
Muskego ^d	--	--	11,573	15,277	15,826	--	--	11,573	--	3,704	32	549	4
New Berlin ^e	--	15,788	26,910	30,529	30,688	--	--	11,122	70	3,619	13	159	1
Oconomowoc.....	5,345	6,682	8,741	9,909	10,070	1,337	25	2,059	31	1,168	13	161	2
Waukesha.....	21,233	30,004	39,695	50,365	51,800	8,771	41	9,691	32	10,670	27	1,435	3
Villages													
Big Bend.....	480	797	1,148	1,345	1,488	317	66	351	44	197	17	143	11
Butler.....	1,047	2,274	2,261	2,059	2,002	1,227	117	-13	-1	-202	-9	-57	-3
Chenequa.....	270	445	642	532	483	175	65	197	44	-110	-17	-49	-9
Dousman.....	328	410	451	1,153	1,339	82	25	41	10	702	156	186	16
Eagle.....	460	620	745	1,008	1,068	160	35	125	20	263	35	60	6
Elm Grove ^f	--	4,994	7,201	6,735	6,239	4,994	--	2,207	44	-466	-6	-496	-7
Hartland.....	1,190	2,088	2,763	5,559	6,240	898	75	675	32	2,796	101	681	12
Lac La Poudre.....	174	276	227	289	283	102	59	-49	-18	62	27	-6	-2
Lannon.....	438	1,084	1,056	987	994	546	147	-28	-3	-69	-7	7	1
Menomonee Falls ^g	2,469	18,276	31,697	27,845	27,039	15,807	640	13,421	73	-3,852	-12	-806	-3
Merton.....	343	407	646	1,045	1,055	64	19	239	59	399	62	10	1
Mukwonago.....	1,207	1,877	2,367	4,014	4,194	670	56	490	26	1,647	70	180	4
Nashotah ^h	--	321	410	513	558	321	15	89	28	103	25	45	9
North Prairie.....	424	489	669	938	1,032	65	15	180	37	269	40	94	10
Oconomowoc Lake ⁱ	--	414	599	524	464	414	--	185	45	-75	-13	-60	-11
Pewaukee.....	1,792	2,484	3,271	4,637	4,979	692	39	787	32	1,366	42	342	7
Sussex.....	679	1,087	2,758	3,482	4,004	408	60	1,671	154	724	26	522	15
Wales.....	237	356	691	1,992	2,162	119	50	335	94	1,301	188	170	9
Towns													
Brookfield.....	7,425	1,990	4,303	4,364	4,394	-5,435	-73	2,313	116	61	1	30	1
Delafield.....	3,740	2,882	3,750	4,597	4,862	-858	-23	868	30	847	23	265	6
Eagle.....	947	1,103	1,250	1,758	1,836	156	16	147	13	508	41	78	4
Genesee.....	1,686	2,183	3,172	5,126	5,359	497	29	989	45	1,954	62	233	5
Lisbon.....	1,532	2,885	4,709	8,352	8,878	1,353	88	1,824	63	3,643	77	526	6
Menomonee Falls ^g	3,793	--	--	--	--	-3,793	-100	--	--	--	--	--	--
Merton.....	2,214	3,077	4,424	6,025	5,932	863	39	1,347	44	1,601	36	-93	-2
Mukwonago.....	1,269	1,579	1,930	4,979	5,658	310	24	351	22	3,049	158	679	14
Muskego.....	4,157	8,888	--	--	--	4,731	114	-8,888	-100	--	--	--	--
New Berlin ^e	5,334	--	--	--	--	-5,334	-100	--	--	--	--	--	--
Oconomowoc.....	3,288	4,465	6,010	7,340	7,430	1,177	36	1,545	35	1,330	22	90	1
Ottawa.....	764	1,092	1,698	2,795	2,932	328	43	606	55	1,097	65	137	5
Pewaukee.....	5,493	5,797	7,551	8,922	9,109	304	6	1,754	30	1,371	18	187	2
Summit.....	2,571	3,472	3,809	4,050	3,988	901	35	337	10	241	6	-62	-2
Vernon.....	1,464	2,037	2,857	6,372	6,835	573	39	820	40	3,515	123	463	7
Waukesha.....	2,108	3,540	4,408	6,668	6,884	1,360	62	868	25	2,260	51	216	3
Waukesha County Total	85,973	158,309	231,335	280,203	285,904	72,336	84	73,026	46	48,868	21	5,701	2

^aData for years 1950, 1960, 1970, and 1980 are from the U. S. Bureau of the Census, and for 1985 are from the Wisconsin Department of Administration.

^bThe City of Brookfield was incorporated in 1954.

^cThe City of Delafield was incorporated in 1959.

^dIn 1964, the Town of Muskego was incorporated as the City of Muskego and the Town of Muskego ceased to exist.

^eIn 1959, the Town of New Berlin was incorporated as the City of New Berlin and the Town of New Berlin ceased to exist.

^fThe Village of Elm Grove was incorporated in 1955.

^gBetween 1960 and 1970, the Town of Menomonee was annexed by the Village of Menomonee Falls and the Town of Menomonee ceased to exist.

^hThe Village of Nashotah was incorporated in 1957.

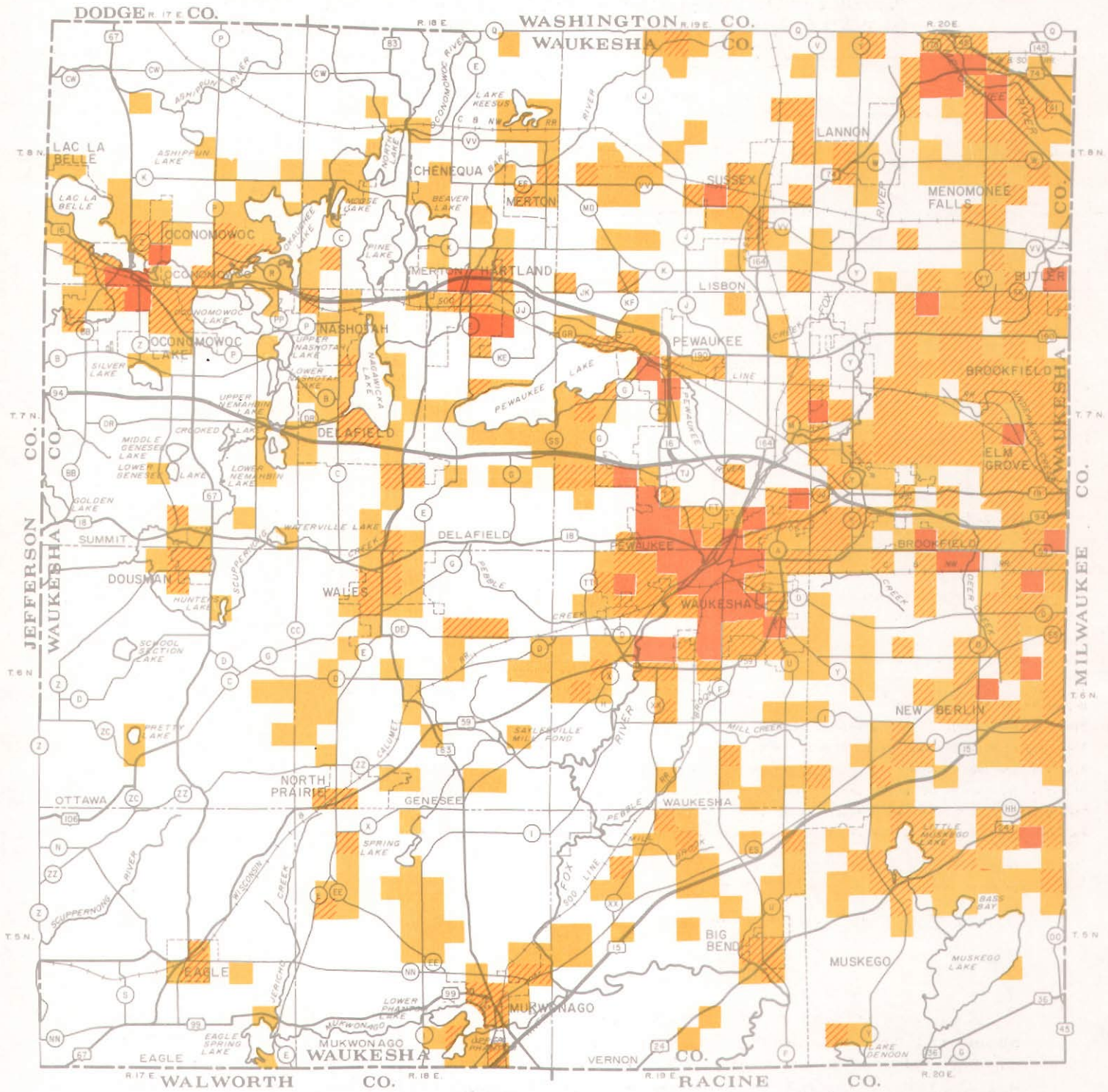
ⁱThe Village of Oconomowoc Lake was incorporated in 1959.

Source: U. S. Bureau of the Census, Wisconsin Department of Administration, and SEWRPC.

Another way in which to consider household vehicle availability in assessing potential transit use is to review the number of vehicles available in relation to the size of the population 16 years of age and older. If a vehicle is available for travel for each potential licensed driver, or person of 16 years of age or older, the potential transit use may be less than for those areas where the number of persons 16 years of age or older exceeds the number of vehicles available. Map 10 indicates for each municipality in Waukesha County the ratio of the number of vehicles available to households in the municipality in 1980 to the size of the population in the municipality 16 years of age and older in 1980. As shown on Map 10, in most municipalities in the County, there were as many vehicles available to households as there were persons 16 years of age and older in 1980. In all of Waukesha County in 1980, there were approximately 174,100 vehicles available, and 198,700 persons 16 years of age

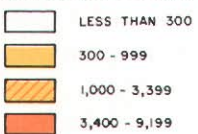
Map 7

WAUKESHA COUNTY POPULATION DENSITY IN PERSONS PER SQUARE MILE: 1985



LEGEND

PERSONS PER SQUARE MILE



Source: SEWRPC.

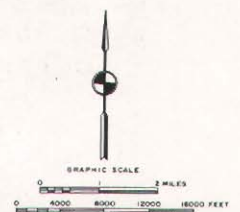


Table 11

NUMBER OF HOUSEHOLDS IN WAUKESHA COUNTY: 1950-1985

Number of Households				
1950	1960	1970	1980	1985
23,599	42,349	61,935	88,552	93,179

Change: 1950-1960		Change: 1960-1970		Change: 1970-1980		Change: 1980-1985	
Number	Percent	Number	Percent	Number	Percent	Number	Percent
18,795	80	19,541	46	26,617	43	4,627	5

Source: SEWRPC.

Table 12

MEDIAN FAMILY INCOME LEVELS IN WAUKESHA COUNTY: CENSUS YEARS 1950-1980

Geographic Area	Year				Percent Change			
	1950	1960	1970	1980	1950-1960	1960-1970	1970-1980	1950-1980
Waukesha County Reported Dollars..... Constant 1979 Dollars...	\$ 3,656 11,260	\$ 7,190 17,831	\$12,795 25,718	\$27,648 27,648	96.7 58.4	78.0 44.2	116.1 7.5	656.2 145.5

Source: U. S. Bureau of the Census, U. S. Department of Labor Statistics, and SEWRPC.

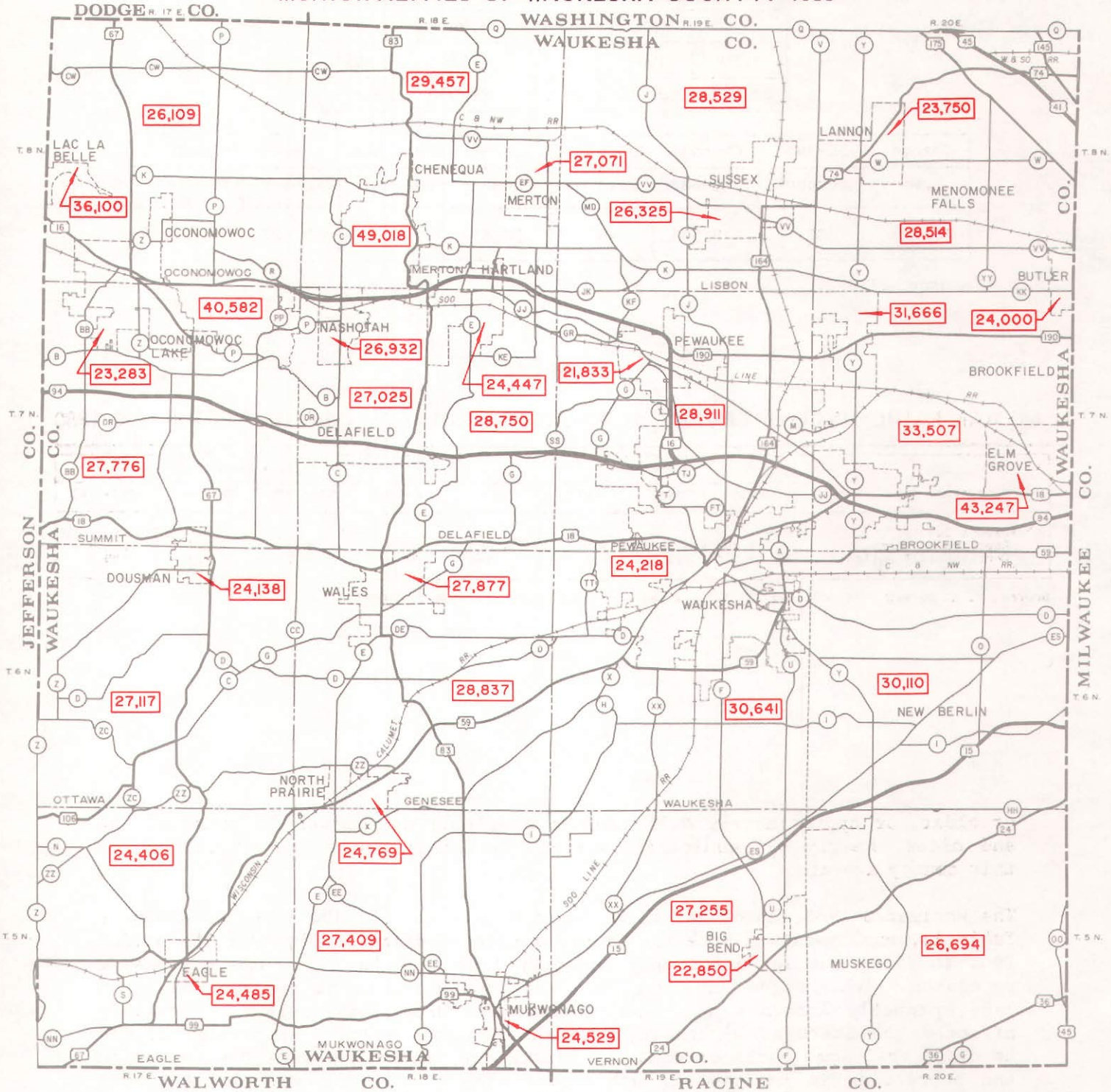
or older, or approximately 0.92 vehicle available per person 16 years of age and older. Nearly all municipalities in the County are within 15 percent of this county average.

The estimated 1985 employment in Waukesha County was 124,100 jobs. As shown in Table 13, employment in Waukesha County increased dramatically over the period 1963 to 1980, but increased only modestly from 1980 to 1985. The nationwide recession, which began in about 1979 and from which local recovery began in 1984, probably accounts for this modest increase. This recession severely affected the State of Wisconsin, particularly southeastern Wisconsin. It may be noted that some parts of Waukesha County are recovering from the recession and increasing in employment much faster than others. For example, the Blue Mound Road (USH 18) corridor--bounded approximately by STH 100 on the east, Greenfield Avenue (STH 59) on the south, CTH T on the west, and North Avenue on the north--experienced an increase of about 11,100 jobs, or 31 percent, between 1980 and 1985--from 36,200 jobs to 47,300 jobs.

The density of employment in Waukesha County is shown on Map 11. The information shown for employment density is consistent with the information presented on generalized land use density. Map 11 indicates that no area in Waukesha

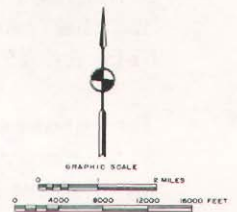
Map 8

MEDIAN FAMILY INCOME LEVELS IN THE MUNICIPALITIES OF WAUKESHA COUNTY: 1980



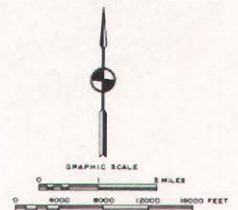
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26,109 INCOME LEVEL IN DOLLARS



Source: SEWRPC.

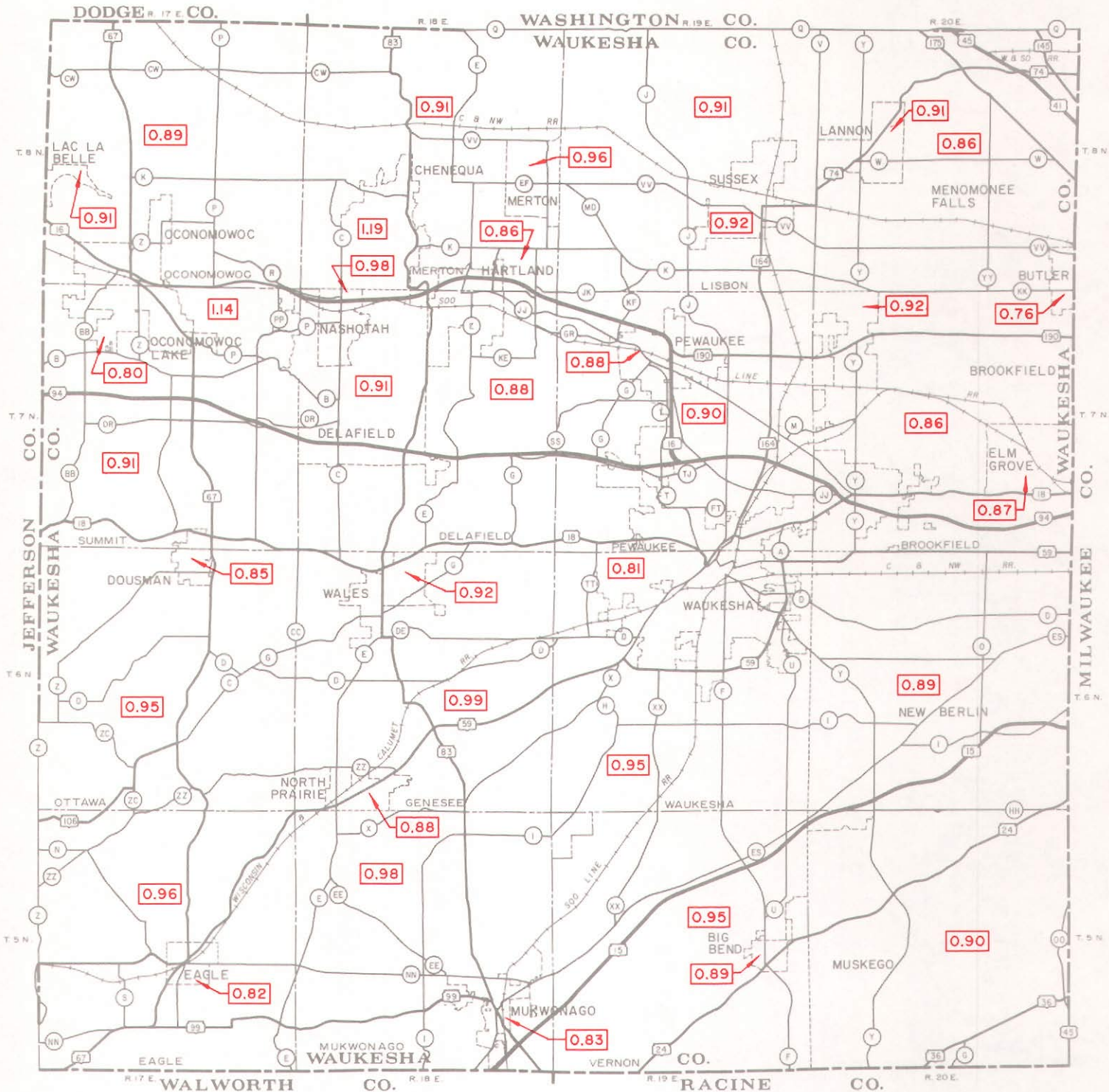
NUMBER OF HOUSEHOLDS IN EACH MUNICIPALITY OF WAUKESHA COUNTY WITH NO VEHICLES AVAILABLE FOR TRAVEL: 1980



37

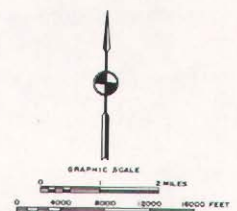
Map 10

RATIO OF NUMBER OF VEHICLES AVAILABLE TO POPULATION 16 YEARS OF AGE OR OLDER IN EACH MUNICIPALITY IN WAUKESHA COUNTY: 1980



LEGEND

0.90 VEHICLES PER PERSON
16 YEARS OF AGE AND OLDER



Source: SEWRPC.

Table 13

HISTORIC EMPLOYMENT IN WAUKESHA COUNTY: 1963, 1970, 1980, AND 1985

Employment			
1963	1970	1980	1985
33,400	71,400	119,400	124,100

Change: 1963-1970		Change: 1970-1980		Change: 1980-1985	
Number	Percent	Number	Percent	Number	Percent
38,000	114	48,000	67	4,700	4

Source: SEWRPC.

County approaches the density of employment reached in the Milwaukee central business district, or elsewhere in the central city. Within Waukesha County, the major concentrations of employment in 1980 were in the City of Waukesha, the New Berlin Industrial Park, and the Blue Mound Road (USH 18) corridor, and along STH 100 between N. Burleigh Road and N. Silver Spring Drive (CTH VV).

TRAVEL PATTERNS

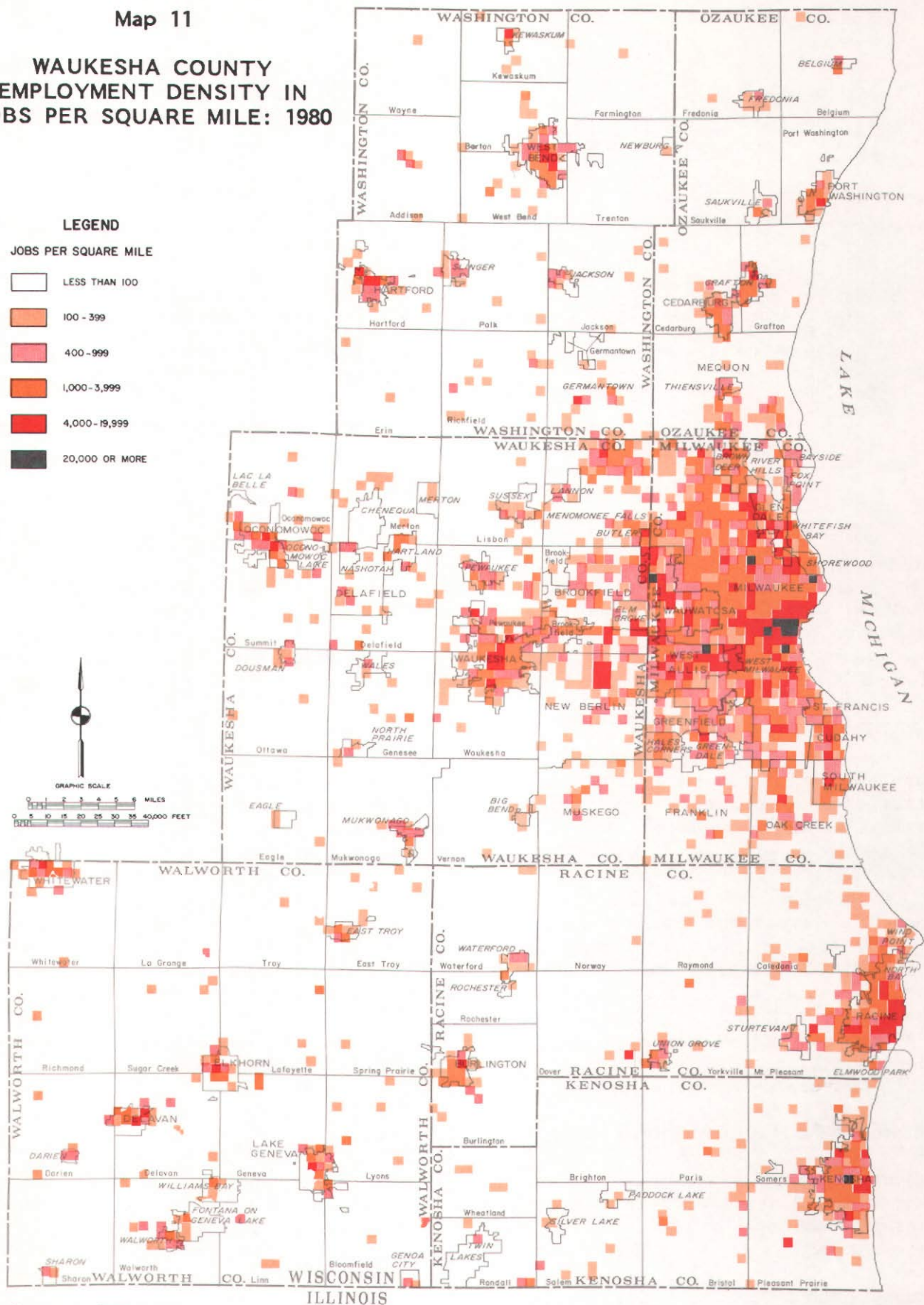
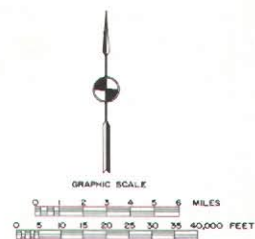
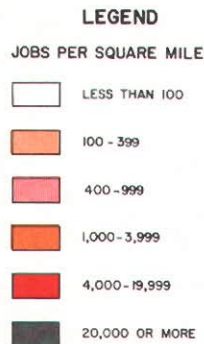
This section of the chapter presents information on the travel habits and patterns of Waukesha County residents relevant to the provision and use of transit facilities and services in Waukesha County. Presented first is an estimate of the amount of travel generated by the households, employment, and other land use activities in Waukesha County, including travel generated within the County and travel generated between the County and the remainder of southeastern Wisconsin. Information is then provided on the amount of work travel on an average weekday between Waukesha County and the Milwaukee central business district, which is the principal focus of the existing Waukesha County transit services. The third and last section presents an analysis of a user survey of the Waukesha County transit system which was conducted by Commission staff in October 1984 as part of the Commission's update of its surveys for all southeastern Wisconsin with respect to transit travel, total travel by resident households, truck travel, and external travel in southeastern Wisconsin.

Waukesha County Total Household Travel Pattern

Based upon Commission travel simulation model applications, it is estimated that 978,000 trips with one or both ends in Waukesha County occurred on an average weekday in 1980. The pattern of those trips, including origin and destination, is shown in Table 14 and on Maps 12 and 13. As might be expected, the amount of travel generated was concentrated in the eastern half of the County, which has been largely converted to urban uses. Substantial travel existed between different areas of the eastern portion of Waukesha County, and

Map 11

WAUKESHA COUNTY EMPLOYMENT DENSITY IN JOBS PER SQUARE MILE: 1980



Source: SEWRPC.

Table 14

**1980 ESTIMATED TOTAL PERSON TRIPS WITHIN WAUKESHA COUNTY
AND BETWEEN WAUKESHA COUNTY AND OTHER COUNTIES IN
THE SOUTHEASTERN WISCONSIN REGION BY ANALYSIS AREA**

County	Analysis Area Description	Total Person Trips by Analysis Area ^a										
		1	2	3	4	5	6	7	8	9	10	11
Waukesha	1. Menomonee Falls.....	42,200	--	--	--	--	--	--	--	--	--	--
	2. Brookfield.....	12,870	71,010	--	--	--	--	--	--	--	--	--
	3. New Berlin.....	1,570	18,140	36,000	--	--	--	--	--	--	--	--
	4. Muskego.....	270	1,430	5,550	16,800	--	--	--	--	--	--	--
	5. Lisbon-Northern Pewaukee-Hartland.....	7,070	8,470	1,900	200	15,010	--	--	--	--	--	--
	6. Merton.....	740	830	200	20	2,100	3,390	--	--	--	--	--
	7. Delafield.....	750	1,890	600	90	5,420	4,043	11,920	--	--	--	--
	8. Oconomowoc-Summit.....	610	1,460	490	80	2,530	3,260	8,270	38,760	--	--	--
	9. Waukesha-Southern Pewaukee.....	3,060	24,860	14,250	3,080	15,050	1,360	4,520	3,290	104,910	--	--
	10. Ottawa-Genesee-Eagle.....	250	1,360	790	220	14,010	390	5,350	4,370	8,500	10,100	--
	11. Mukwonago-Vernon.....	180	1,270	2,130	1,850	560	80	470	450	6,260	4,180	12,460
Milwaukee	12. Northern Milwaukee County.....	22,760	8,330	1,680	460	2,590	380	410	390	2,020	200	240
	13. North-Central Milwaukee County.....	30,960	65,890	17,560	3,990	8,230	1,160	2,230	1,910	17,050	1,460	2,220
	14. Milwaukee Central Business District.....	1,030	2,900	2,040	750	960	130	290	250	2,390	270	480
	15. South-Central Milwaukee County.....	7,560	30,520	35,640	14,240	4,320	580	1,560	1,400	17,200	1,590	4,360
	16. Southern Milwaukee County.....	460	1,560	2,130	4,050	240	30	100	80	1,220	140	540
Ozaukee	17. All Ozaukee County.....	3,050	1,290	300	80	570	160	90	90	360	30	50
Washington	18. All Washington County.....	16,440	3,160	580	110	5,590	1,960	1,110	1,280	1,920	260	110
Walworth	19. All Walworth County.....	90	680	670	600	180	120	240	560	1,840	3,020	4,770
Racine	20. All Racine County.....	350	1,850	1,780	5,420	260	40	130	140	2,430	550	2,530
Kenosha	21. All Kenosha County.....	80	780	220	380	50	10	30	20	270	60	170

^aBoundaries of analysis areas are shown on Map 13.

Source: SEWRPC.

between Waukesha County and Milwaukee County. It should be noted that the very small area which comprises the central business district of Milwaukee attracts a very large portion of the travel that is generated.

Work Travel to the Milwaukee Central Business District

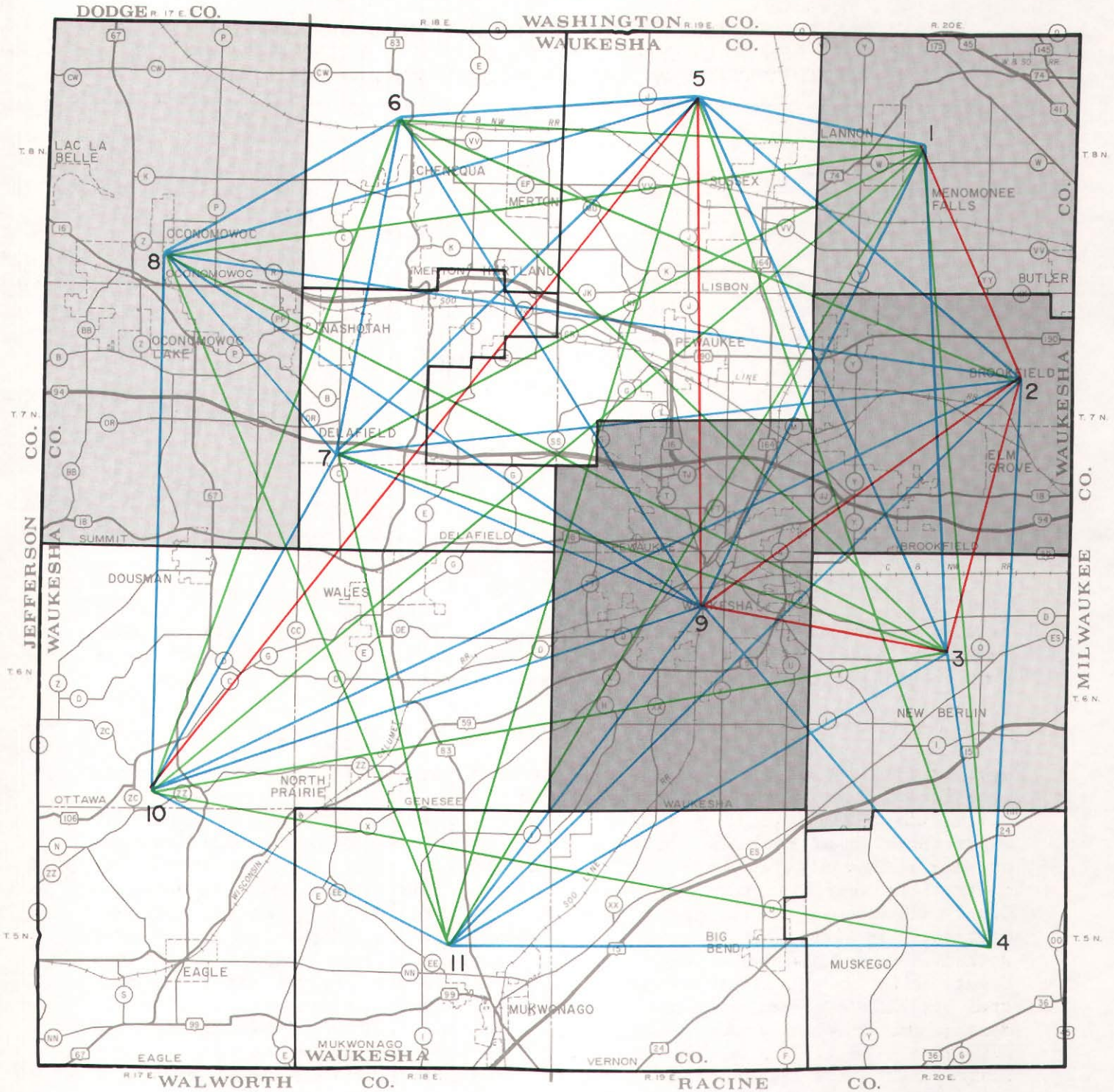
Much of the existing Waukesha County transit service is focused on serving peak-period travel from Waukesha County to the Milwaukee central business district, which is composed primarily of trips to and from work. An important characteristic of Waukesha County resident travel is the number and location of Waukesha County residents that regularly travel to work in the Milwaukee central business district. Map 14 identifies for each municipality in Waukesha County the number of residents that work in the Milwaukee central business district. In 1980, an estimated 5,000 Waukesha County residents regularly worked in the Milwaukee central business district. The municipalities in the County with the greatest number of residents employed in the Milwaukee central business district were the City of Brookfield--approximately 1,012 residents; the City of Waukesha--832 residents; and the City of New Berlin--729 residents. The Village of Menomonee Falls, with 391 residents, and the City of Muskego, with 273 residents, also had a fairly substantial number of residents with jobs in the Milwaukee central business district. No other community had more than 160 residents with jobs in the Milwaukee central business district.

WAUKESHA COUNTY TRANSIT SYSTEM USER SURVEY

An on-board bus survey was conducted on the Waukesha County transit system by the Regional Planning Commission in October 1984 to define the socioeconomic and travel characteristics of the users of the system. This survey was con-

Map 12

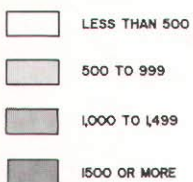
TRAVEL PATTERNS OF WAUKESHA COUNTY RESIDENTS WITHIN WAUKESHA COUNTY: 1980



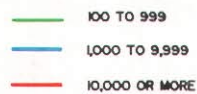
LEGEND

— ANALYSIS AREA BOUNDARY

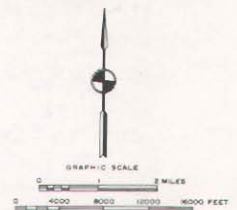
TOTAL PERSON TRIPS PER SQUARE MILE
WITHIN ANALYSIS AREA



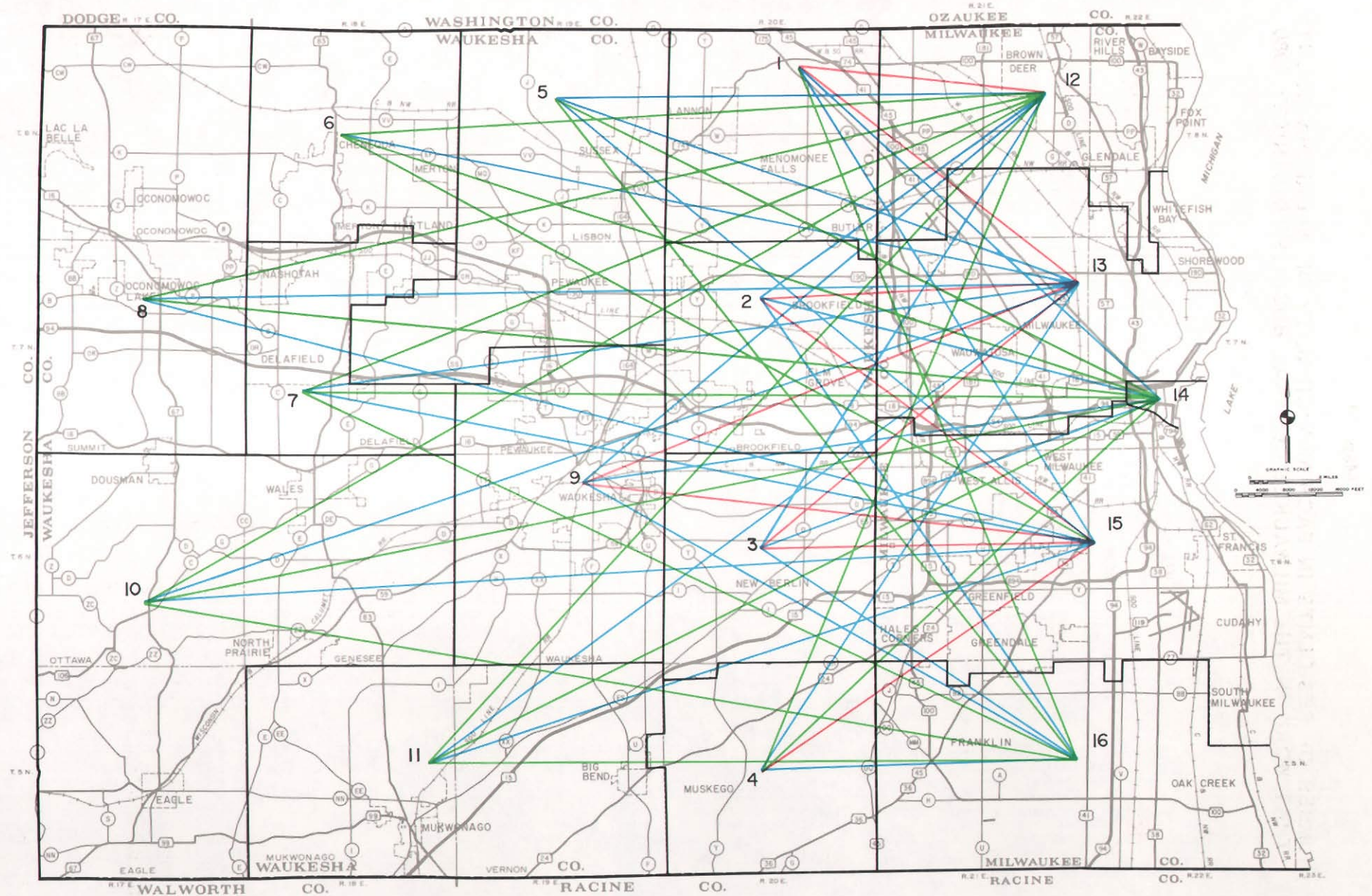
TOTAL PERSON TRIPS BETWEEN
ANALYSIS AREAS



Source: SEWRPC.



TRAVEL PATTERNS OF WAUKESHA COUNTY RESIDENTS BETWEEN WAUKESHA AND MILWAUKEE COUNTIES: 1980



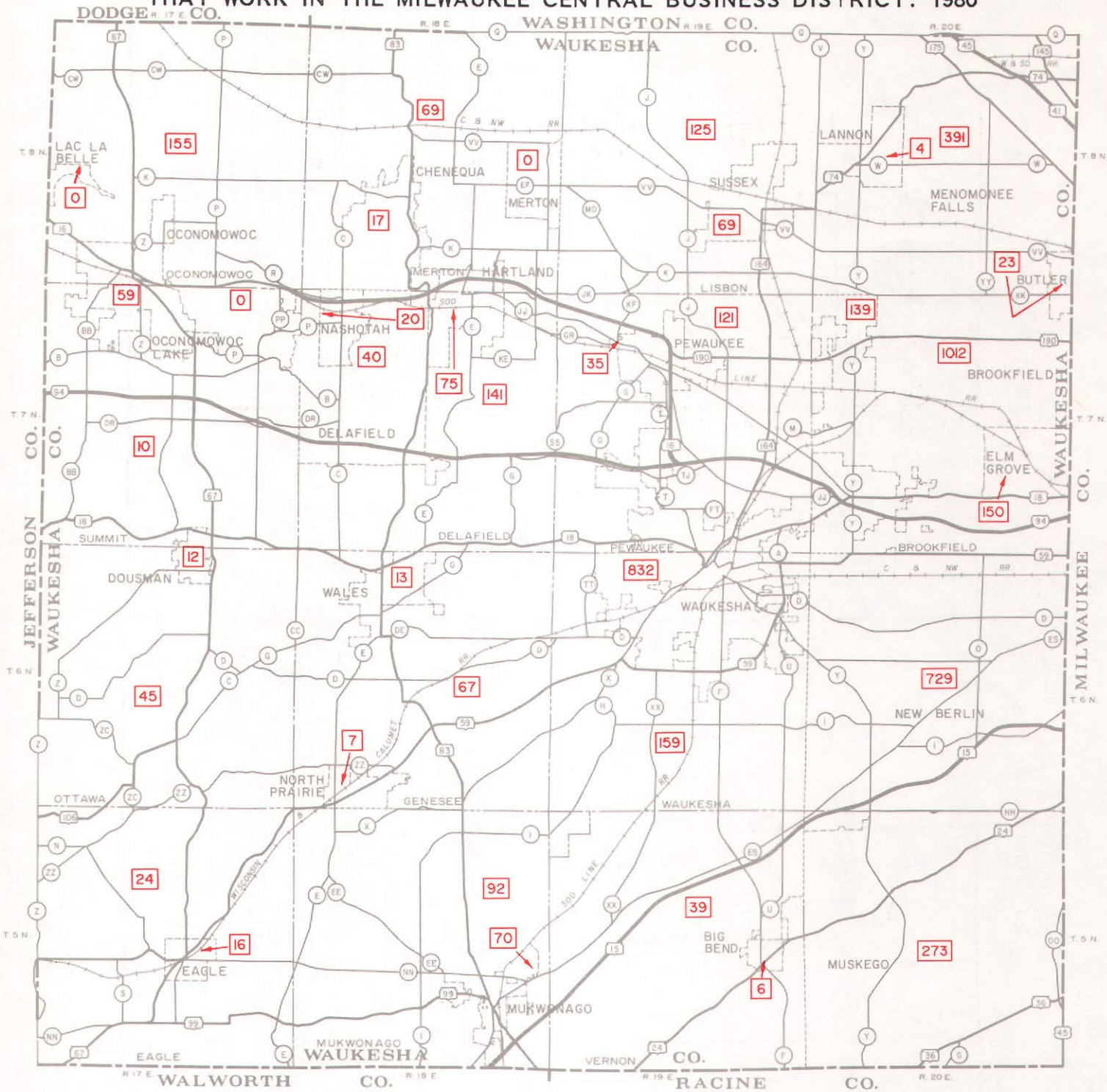
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- | | | | |
|--|---|----------------|----------------|
| — ANALYSIS AREA BOUNDARY | TOTAL PERSON TRIPS BETWEEN ANALYSIS AREAS | | |
| 10 ANALYSIS AREA IDENTIFICATION NUMBER | 100 TO 999 | 1,000 TO 9,999 | 10,000 OR MORE |

Source: SEWRPC.

Map 14

NUMBER OF RESIDENTS IN EACH MUNICIPALITY OF WAUKESHA COUNTY
THAT WORK IN THE MILWAUKEE CENTRAL BUSINESS DISTRICT: 1980



LEGEND

273 NUMBER OF RESIDENTS WORKING
IN MILWAUKEE CENTRAL BUSINESS DISTRICT

Source: SEWRPC.

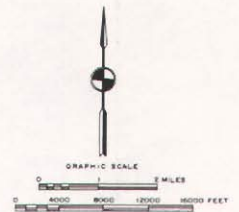


Table 15

**AVERAGE WEEKDAY RIDERSHIP BY ROUTE ON THE
WAUKESHA COUNTY TRANSIT SYSTEM: OCTOBER 1984**

Route	Revenue Passengers	
	Number	Percent of Total
Route No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	320	26.7
Route No. 2--Waukesha to Milwaukee via Blue Mound Road.....	210	17.5
Route No. 3--Oconomowoc to Milwaukee via STH 16.....	100	8.3
Route No. 4--Oconomowoc to Milwaukee via IH 94.....	80	6.7
Route No. 79--Menomonee Falls Freeway Flyer.....	270	22.5
Route No. 10--Brookfield Square Local Route Extension.....	220	18.3
Total	1,200	100.0

Source: Waukesha County Highway Department and SEWRPC.

ducted along with user surveys for the other four transit systems in the Region, and along with household, truck fleet, and external travel surveys for the Region. Survey forms were distributed to passengers on all bus runs on the four routes operated by Wisconsin Coach Lines, Inc., and on a sample of the runs on the two bus routes operated by the Milwaukee County Transit System for Waukesha County. The on-board bus survey form used is reproduced in Appendix A of this report. Provision was made for return by mail of survey forms which could not be completed and collected on the bus.

Actual ridership by route on an average weekday during the month that the survey was conducted is shown in Table 15. About 600 usable survey questionnaires were returned, representing 50 percent of the 1,200 passengers using the Waukesha County transit system on an average weekday during the month of the survey. Information gathered included socioeconomic characteristics of the transit users and characteristics of the trips made by the transit users. The following sections summarize the results of the survey. Information obtained from the survey about trip origins and destinations is summarized in Chapter VI.

The socioeconomic characteristics generally considered relevant to the provision of transit facilities and services include sex, age, income, and vehicle availability. As indicated in Table 16, about 70 percent of Waukesha County transit system users are female. This is consistent with national figures, which indicate that women constitute the overwhelming majority of transit riders. The distribution of transit riders by sex shown in the Commission survey compares favorably with a survey conducted by Wisconsin Coach Lines, Inc., in October 1986. The survey conducted by Wisconsin Coach Lines indicated that 62 percent of its ridership was female.

Table 16

**PERCENTAGE DISTRIBUTION OF RIDERSHIP ON THE WAUKESHA
COUNTY TRANSIT SYSTEM BY SEX BY ROUTE: OCTOBER 1984**

Route	Percent of Riders by Sex		
	Male	Female	Total
Route No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	44	56	100
Route No. 2--Waukesha to Milwaukee via Blue Mound Road.....	38	62	100
Route No. 3--Oconomowoc to Milwaukee via STH 16.....	46	54	100
Route No. 4--Oconomowoc to Milwaukee via IH 94.....	62	38	100
Route No. 79--Menomonee Falls Freeway Flyer.....	33	67	100
Route No. 10--Brookfield Square Local Route Extension.....	11	89	100
System Average	30	70	100

Source: SEWRPC.

By age group, as shown in Table 17, the Waukesha County transit system is used predominantly by adults ages 25 through 54, which represent 50 percent of system ridership. This age group includes those adults who are most likely to be in the labor force. Other age groups representing substantial proportions of the system transit ridership include the 19-through-24-year age group and the 55-through-64-year age group. These age groups are also likely to be in the labor force, although members of the former age group could also be attending a technical school, college, or university. While persons 19 through 64 years of age represented only about 58 percent of the total population of Waukesha County in 1980, they represented 85 percent of the transit ridership on the Waukesha County transit system. The distribution of transit riders shown in the survey conducted by Commission staff compares very favorably with the age distribution established through a similar survey conducted by Wisconsin Coach Lines on the routes it operated for Waukesha County in October 1986. The survey conducted by Wisconsin Coach Lines indicated that 81 percent of the ridership on its routes for Waukesha County was between 20 and 64 years of age.

Table 18 provides the distribution of Waukesha County transit system ridership by household income. Based upon the survey conducted by the Regional Planning Commission, the median household income of the riders on the Waukesha County transit system was between \$25,000 to \$29,999, or approximately the same as the median income for all households in Waukesha County. Generally, the percentage of transit riders in each income group was about the same as the percentage of households in each income group in all of Waukesha County in 1980, as identified by the U. S. Bureau of the Census. While this would be considered somewhat atypical for a transit system that provides primarily local transit service, it should not be considered atypical for the service that is provided by the Waukesha County transit system, which is composed largely of express and rapid transit service for work-related trips.

Table 17

**PERCENTAGE DISTRIBUTION OF RIDERSHIP ON THE WAUKESHA
COUNTY TRANSIT SYSTEM BY AGE GROUP BY ROUTE: OCTOBER 1984**

Route	Percent of Riders by Age Group						
	6-12	13-18	19-24	25-54	55-64	65 and Older	Total
Route No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	--	8	23	55	9	5	100
Route No. 2--Waukesha to Milwaukee via Blue Mound Road.....	1	6	23	59	9	2	100
Route No. 3--Oconomowoc to Milwaukee via STH 16.....	--	2	14	75	3	6	100
Route No. 4--Oconomowoc to Milwaukee via IH 94.....	--	--	3	75	22	--	100
Route No. 79--Menomonee Falls Freeway Flyer.....	--	13	12	57	18	--	100
Route No. 10--Brookfield Square Local Route Extension....	--	--	45	33	--	22	100
System Average	--	5	28	50	7	10	100

Source: SEWRPC.

Table 18

**PERCENTAGE DISTRIBUTION OF RIDERSHIP ON THE WAUKESHA COUNTY
TRANSIT SYSTEM BY INCOME GROUP BY ROUTE: OCTOBER 1984**

Route	Percent of Riders by Income Group									
	Under \$5,000	\$5,000- \$9,999	\$10,000- \$14,999	\$15,000- \$19,999	\$20,000- \$24,999	\$25,000- \$29,999	\$30,000- \$34,999	\$35,000- \$39,999	\$40,000 or Over	Total
Route No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	7	8	17	11	10	13	13	7	14	100
Route No. 2--Waukesha to Milwaukee via Blue Mound Road.....	10	6	13	3	8	10	17	11	22	100
Route No. 3--Oconomowoc to Milwaukee via STH 16.....	2	3	4	12	12	6	20	7	34	100
Route No. 4--Oconomowoc to Milwaukee via IH 94.....	--	--	1	22	--	3	6	12	56	100
Route No. 79--Menomonee Falls Freeway Flyer.....	--	3	4	13	10	11	26	7	26	100
Route No. 10--Brookfield Square Local Route Extension.....	--	12	38	--	--	25	--	25	--	100
System Average	3	8	20	7	6	16	10	15	15	100

Source: SEWRPC.

Automobile availability is an important factor influencing transit usage. Those households that do not own an automobile are dependent upon other persons or upon public transit for the provision of essential transportation services. Also, in those households where there are more members of the household--particularly of driving age--than there are automobiles, some household members may also be dependent upon others for public transit. According to the Regional Planning Commission survey, about 10 percent of the Waukesha County transit system riders were members of households with no vehicles available; 26 percent were members of households with one vehicle available; 45 percent were members of households with two vehicles available; and 19 percent were members of households with three or more vehicles available. Thus, while only 4 percent of the households within Waukesha County had no vehicles available, they accounted for 10 percent of the county transit system ridership. Table 19 sum-

Table 19

**PERCENTAGE DISTRIBUTION OF RIDERSHIP ON THE WAUKESHA COUNTY
TRANSIT SYSTEM BY VEHICLE AVAILABILITY BY ROUTE: OCTOBER 1984**

Route	Percent of Riders by Vehicle Availability				
	None	One	Two	Three or More	Total
Route No. 1--Waukesha to Milwaukee via Greenfield Avenue.....	16	34	30	20	100
Route No. 2--Waukesha to Milwaukee via Blue Mound Road.....	12	31	36	21	100
Route No. 3--Oconomowoc to Milwaukee via STH 16.....	1	35	51	13	100
Route No. 4--Oconomowoc to Milwaukee via IH 94.....	1	27	61	11	100
Route No. 79--Menomonee Falls Freeway Flyer.....	--	34	34	32	100
Route No. 10--Brookfield Square Local Route Extension.....	12	12	63	12	100
System Average	10	26	45	19	100

Source: SEWRPC.

Table 20

**PERCENTAGE DISTRIBUTION OF RIDERSHIP ON
THE WAUKESHA COUNTY TRANSIT SYSTEM BY
AUTOMOBILE AVAILABILITY AND HOUSEHOLD SIZE**

Household Size	Percent of Revenue Passengers by Number of Automobiles Available				
	None	One	Two	Three or More	Total
One Person.....	7.2	4.1	--	--	11.3
Two Persons.....	1.8	7.8	14.6	1.0	25.2
Three Persons.....	0.3	8.1	15.8	2.6	26.8
Four Persons.....	0.4	3.5	8.1	5.8	17.8
Five Persons.....	--	1.6	1.8	3.2	6.6
Six or More Persons....	--	0.6	5.8	5.9	12.3
Total	9.7	25.7	46.1	18.5	100.0

Source: SEWRPC.

marizes the ridership by household vehicle availability as determined by the Regional Planning Commission survey. Table 20 identifies the percentage distribution of ridership by both vehicle availability and household size, as found in the Commission survey.

The purpose of trips made on the Waukesha County transit system as defined by the Regional Planning Commission survey is indicated in Tables 21 and 22. The importance of home and work as a trip origin or destination, and therefore

Table 21

PERCENTAGE OF DISTRIBUTION OF TRIP ORIGINS AND DESTINATIONS OF RIDERSHIP ON THE WAUKESHA COUNTY TRANSIT SYSTEM: OCTOBER 1984

Origin of Trip	Percent of Revenue Transit Trips	Destination of Trip	Percent of Revenue Transit Trips
Home.....	47	Home.....	42
Work.....	20	Work.....	24
School.....	13	School.....	9
Shopping.....	5	Shopping.....	5
Social-Recreational...	13	Social-Recreational...	10
Personal Business.....	9	Personal Business.....	10
Total	100	Total	100

Source: SEWRPC.

Table 22

PERCENTAGE DISTRIBUTION OF TRIPS ON THE WAUKESHA COUNTY TRANSIT SYSTEM BY TRIP PURPOSE: OCTOBER 1984

Trip Purpose	Percent of Revenue Transit Trips
Home-Based Work.....	42
Home-Based Shopping.....	18
Home-Based Other.....	12
Nonhome-Based.....	6
School-Based.....	22
Total	100

Source: SEWRPC.

purpose of trip, is apparent. Approximately 42 percent of all trips involved travel between home and work. In comparison, the survey conducted by Wisconsin Coach Lines, Inc., in 1986 indicated that about 64 percent of all trips on the Wisconsin Coach Lines routes for the Waukesha County transit system were trips to or from work.

Overall, about 60 percent of all passengers on the Waukesha County transit system arrive at their initial boarding location by walking; 11 percent by driving their automobile and parking; 12 percent by being driven to the boarding location; and 17 percent by taking another bus.

SUMMARY AND CONCLUSIONS

This chapter has presented pertinent information on Waukesha County land use patterns, on the size and distribution of population and employment, and on the travel habits and patterns of the resident population. These factors must be considered in any transit planning effort.

With respect to land use, the pattern of historic urban growth in Waukesha County has resulted in a discontinuous and highly diffused pattern in the western portion of the County, with few major concentrations of complete urban development. Based upon the pattern of urban development in the County, the only sizable areas in the County that are fully developed for urban use and that could thus support efficient local transit service are the City of Waukesha and perhaps the northeast portion of the City of New Berlin, the east-central portion of the City of Brookfield, and the north-central portion of the Village of Menomonee Falls.

Also reviewed was the density of such urban development, as, generally, local transit service may be efficiently provided only in areas of medium- to high density-land use. Such land uses were found to exist only in the City of Waukesha and in the Blue Mound Road (USH 18) corridor generally west of Moorland Road in the City of Brookfield.

With respect to population, Waukesha County was identified as increasing rapidly in population in the period 1950 to 1980, approximately 220 percent, with more moderate growth of about 2 percent between 1980 and 1985. The estimated 1985 population of the County was 286,000 persons. The number of households in Waukesha County also increased substantially from 1950 to 1980--about 280 percent--with, again, more moderate growth of about 5 percent occurring between 1980 and 1985.

The characteristics of the population of Waukesha County were reviewed, including income and automobile availability. An important population characteristic with respect to public transit is income, as generally greater use of public transit is made by persons from families with lower incomes. This is not necessarily true, however, of express or rapid transit service, which focuses on trips to an area like the Milwaukee central business district which are made for work purposes. Over the period 1950 to 1980, the median family income in Waukesha County increased in both actual and constant dollars, except between 1970 and 1980, when family income exhibited very modest increases in constant dollars. The median family income in Waukesha County in 1980 was estimated to be \$27,648. The median family income levels of most municipalities within the County were determined not to vary widely from the county median and to be within 15 percent of that median.

Another important population characteristic with respect to transit ridership is the number of vehicles available per household for travel, as households with no vehicles available may be expected to rely solely on public transit to meet their travel needs. In 1980, an estimated 3,150 households in the County, or approximately 4 percent of all households in the County, had no vehicles available for travel. About 1,350 of those households, or about 43 percent, were located in the City of Waukesha, with no other community in the County having a concentration of such households approaching that level. Thus, the greatest need for public transit in Waukesha County would appear to be in the City of Waukesha.

Like population, employment increased dramatically in Waukesha County from 1963 to 1980, and increased only modestly from 1980 to 1985, primarily as a result of the nationwide recession which began in 1979, and from which recovery began in 1984. The estimated 1985 level of employment in Waukesha County was 124,100 jobs. Review of the existing density of employment in Waukesha County indicated that no commercial or industrial area in the County approached the density or extent of employment of the Milwaukee central business district or other areas of the central city. The major concentrations of employment in Waukesha County in 1980 were in the City of Waukesha, the New Berlin Industrial Park, and the Blue Mound Road (USH 18) corridor, and along STH 100 between W. Burleigh Road and W. Silver Spring Road (CTH VV). Moreover, these employment centers were located in areas that were not yet fully developed for urban use.

An important characteristic of the Waukesha County population and its travel habits is the number of county residents that regularly travel to the Milwaukee central business district for work purposes. Much of the existing Waukesha County transit service is focused on serving peak-period travel from Waukesha County to the Milwaukee central business district. An estimated 5,000 Waukesha County residents regularly worked in the Milwaukee central business district in 1980. Municipalities in the County with the greatest number of residents with jobs in the Milwaukee central business district were the City of Brookfield, approximately 1,012 residents; the City of Waukesha, 832 residents; and the City of New Berlin, 729 residents.

An on-board bus survey was conducted on the Waukesha County transit system by the Regional Planning Commission in October 1984 to define the socioeconomic and travel characteristics of the users of the system. This survey was conducted along with user surveys for the other four transit systems in the Region, and along with household, truck, and external travel surveys for the Region to update the Commission travel survey data. The information obtained in the survey compares favorably with a survey conducted by Wisconsin Coach Lines, Inc., in October 1986 on the lines that it operates for Waukesha County. With respect to socioeconomic characteristics, the Commission survey indicated that approximately 70 percent of the transit system ridership was female; approximately 85 percent of the ridership was between the ages of 25 and 54; the median income of transit riders was between \$25,000 and \$29,999, or about the same as the median household income in Waukesha County; and about 10 percent of the county transit system riders were members of households with no vehicle available. The principal purpose of travel on the Waukesha County transit system was work-related, with approximately 42 percent of all trips involving travel to and from work.

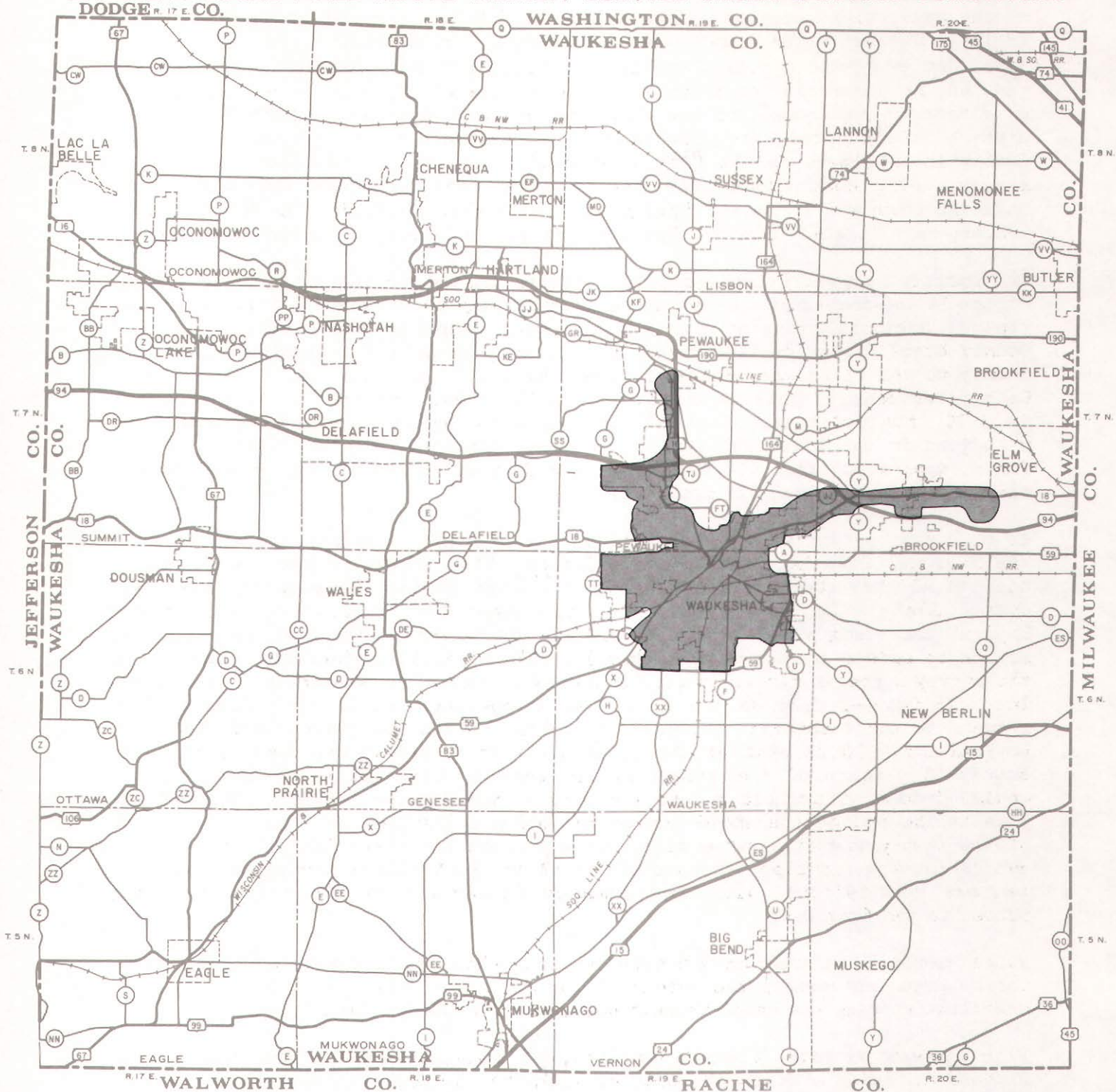
Based upon the information provided in this chapter, a number of conclusions can be drawn concerning the potential for efficient local transit services and efficient express and rapid transit services in Waukesha County.

With respect to local transit services, no strong potential for new service appears to exist outside the City of Waukesha. Similarly, there appears to be no strong potential for extending additional Milwaukee County Transit System routes into Waukesha County. The areas within Waukesha County with the potential to support efficient local transit service are shown on Map 15.

Very limited potential would appear to exist for expanded express and rapid transit service within the County. The areas within Waukesha County with the potential to support efficient rapid and express transit services are shown on Map 16.

Map 15

AREAS WITHIN WAUKESHA COUNTY WITH THE POTENTIAL TO SUPPORT EFFICIENT LOCAL FIXED-ROUTE TRANSIT SERVICE UNDER EXISTING CONDITIONS



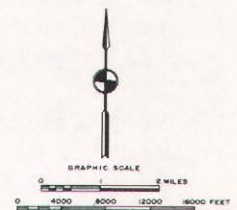
LEGEND

AREA WITH POTENTIAL TO SUPPORT EFFICIENT LOCAL FIXED-ROUTE TRANSIT SERVICE^a

^aTHE AREAS IDENTIFIED GENERALLY MEET ALL OF THE FOLLOWING CONDITIONS:

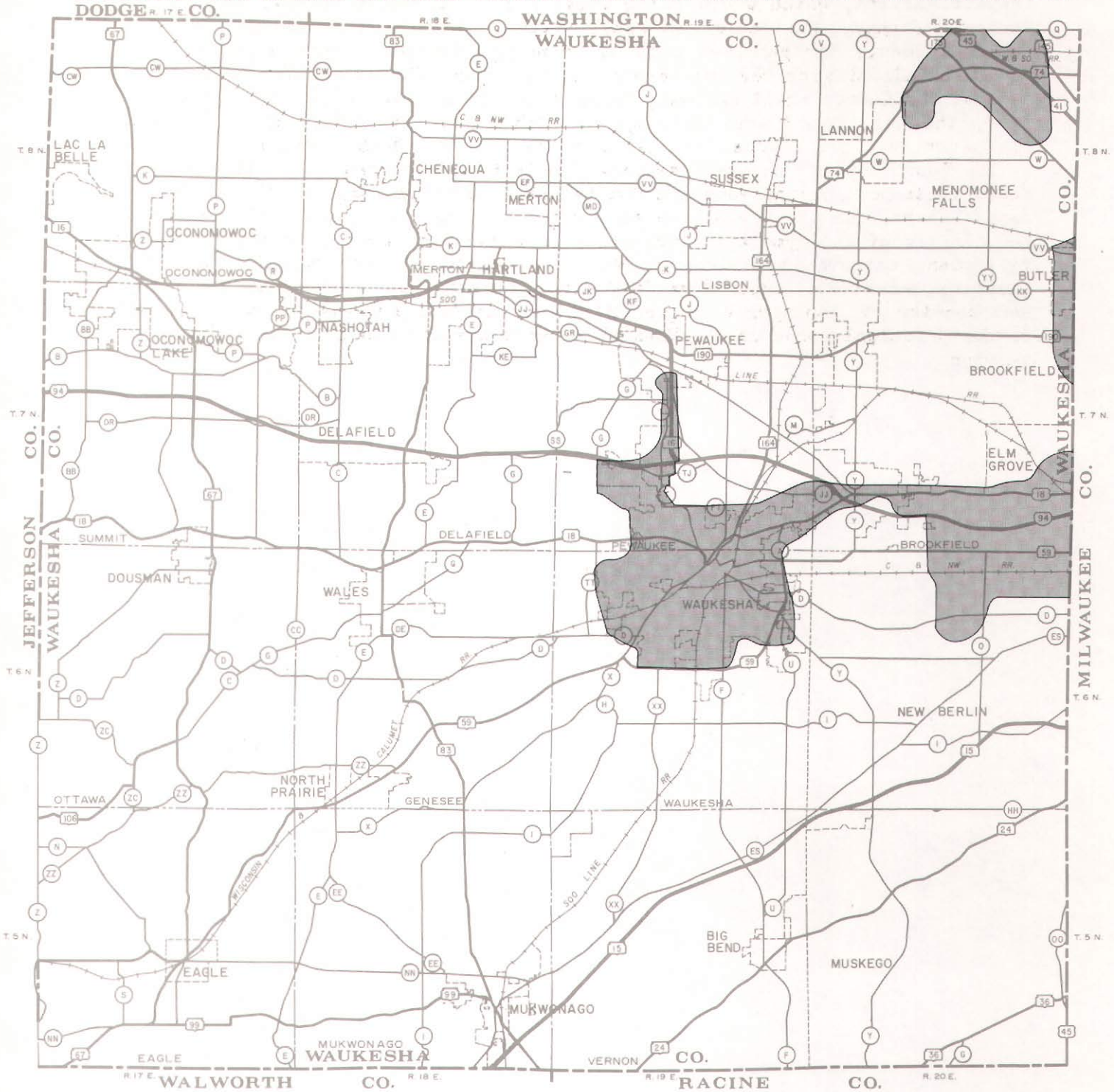
- 1) FULLY DEVELOPED FOR URBAN LAND USES,
- 2) URBAN LAND USE OF HIGH TO MEDIUM DENSITY,
- 3) SIGNIFICANT CONCENTRATIONS OF ZERO AUTO AND LOWER INCOME HOUSEHOLDS.

Source: SEWRPC.



Map 16

AREAS WITHIN WAUKESHA COUNTY WITH THE POTENTIAL TO SUPPORT EFFICIENT RAPID AND EXPRESS TRANSIT SERVICE UNDER EXISTING CONDITIONS



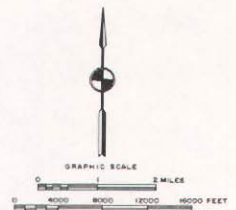
LEGEND

■ AREA WITH POTENTIAL TO SUPPORT EFFICIENT RAPID AND EXPRESS TRANSIT SERVICE^a

^aTHE AREAS IDENTIFIED GENERALLY MEET ALL OF THE FOLLOWING CONDITIONS:

- 1) FULLY DEVELOPED FOR URBAN LAND USES.
- 2) URBAN LAND USE OF HIGH TO MEDIUM DENSITY.
- 3) SUBSTANTIAL CONCENTRATION OF WORK TRIPS MADE BY RESIDENTS TO/FROM THE MILWAUKEE CENTRAL BUSINESS DISTRICT.

Source: SEWRPC.



Another type of transit service expansion which may be considered is "reverse" transit service, which would bring workers from Milwaukee County to jobs in Waukesha County, and could, as well, carry residents of Milwaukee County to Waukesha County for purposes such as shopping. However, there appears to be no potential for such reverse service at this time. The developing eastern portion of the County still has many areas that are as yet undeveloped. In addition, the density of most development within Waukesha County generally does not permit efficient local transit service, whether that service is internal to the County or is "reverse" service. It is important to note in this respect that, while portions of Waukesha County are developing very rapidly as employment centers, the density of the employment in such centers is much lower than the density of employment in such areas in Milwaukee County. In addition, the employment centers themselves in Waukesha County are very widely scattered. There is no center of employment in Waukesha County which approaches the amount and density of employment in the Milwaukee central business district, which is the principal focus of the Waukesha County transit system rapid and express service.

Chapter IV

EXISTING TRANSIT LEGISLATION AND REGULATIONS

This chapter summarizes the federal and state legislation and regulations affecting the provision of public transit service in Waukesha County. Federal legislation and related administrative rules regulate the availability and distribution of federal financial aid for capital improvement projects, operating subsidies, and technical studies. State legislation specifies the institutional structure for public transit systems and tax relief, and provides for operating subsidies.

FEDERAL LEGISLATION

Federal assistance for urban public transportation was first provided in 1961 through a modestly funded section of the federal Housing and Urban Development Act. The section authorized federal expenditures for demonstration projects and for low-interest emergency loans for transit system development. Currently, federal aid for urban transit services is available primarily under the provisions of the Urban Mass Transportation Act of 1964 and its subsequent amendments.

Urban Mass Transportation Act of 1964, as Amended

The landmark Urban Mass Transportation Act of 1964 represented the first significant federal effort to provide financial assistance for transit service by the establishment of a comprehensive program of matching grants for preserving, improving, and expanding urban public transit service. The stated purposes of the Act were: "1) to assist in the development of improved mass transportation facilities, equipment, techniques, and methods, with the cooperation of mass transportation companies both public and private; 2) to encourage the planning and establishment of areawide urban mass transportation systems needed for economical and desirable urban development, with the cooperation of mass transportation companies both public and private; and 3) to provide assistance to state and local governments and their instrumentalities in financing such systems, to be operated by public or private mass transportation companies as determined by local needs." The 1964 Act was subsequently amended by the Urban Mass Transportation Assistance Act of 1970, by the National Mass Transportation Assistance Act of 1974, by the Surface Transportation Act of 1978, by the Federal Surface Transportation Assistance Act of 1982, and by the Federal Surface Transportation and Uniform Relocation Assistance Act of 1987. The federal reorganization of 1968 transferred responsibility for administering the Act from the U. S. Department of Housing and Urban Development to the U. S. Department of Transportation through the establishment of the Urban Mass Transportation Administration (UMTA) within that Department. The programs under the Act which offer designated eligible local recipients federal funds to assist them in carrying out urban public transportation projects are described below.

Section 3 Funds: Discretionary capital matching grants are authorized under Section 3 of the Urban Mass Transportation Act of 1964, as amended by the

Federal Surface Transportation and Uniform Relocation Assistance Act of 1987. Section 3 grants are made on a project-by-project basis at the discretion of the Secretary of the U. S. Department of Transportation. Such grants are intended primarily for state or local public agencies that operate or assist in the operation of transit systems in urbanized areas; that is, in urban areas having a central city of 50,000 population or more. Section 3 grants provide up to 75 percent of the costs of eligible projects, which include the acquisition, construction, reconstruction, and improvement of facilities and equipment for use in the provision of public transportation service; the construction of new and the extension of existing fixed-guideway rapid transit systems; the introduction into public transportation service of new technology in the form of innovative and improved products; and joint development projects. In addition to being available as matching grants, Section 3 funds may be used as loans for the acquisition of real property and interests in real property for use as right-of-way, station sites, and related purposes. As of 1987, Waukesha County had not used any Section 3 funds.

Section 8 Funds: Grants for technical studies are provided under Section 8. Activities funded under this section include studies related to the management, operations, capital requirements, and economic feasibility of urban public transportation projects; the preparation of engineering and architectural surveys, plans, and specifications; the evaluation of previously funded transit projects; and similar activities preliminary to and in preparation for the construction, acquisition, or improved operation of public transportation systems, facilities, and equipment. Technical study grants may cover up to 100 percent of the study costs; however, current UMTA policy is to make all technical study grants on an 80 percent federal-20 percent local matching basis. Urban transit technical studies conducted as a part of the Regional Planning Commission's continuing land use-transportation study, such as this study for Waukesha County, are funded in part with Section 8 funds.

Section 9 Funds: The Section 9 formula block grant program makes federal transit assistance available to urbanized areas for planning and engineering, capital improvements, and operations. The federal matching share for planning and/or capital assistance is not to exceed 80 percent of the eligible project costs, while the federal matching share for operating assistance is not to exceed 50 percent of transit operating deficits. The Section 9 funds allocated to urbanized areas will remain available for up to three years past the year for which the allocation was made--a total of four years. Any funds remaining unobligated by UMTA after four years will be added to the amount available nationally for apportionment in the succeeding year.

The Section 9 program, created as part of the Federal Surface Transportation Assistance Act of 1982, is a formula-apportioned block grant program that replaced the Section 5 program in 1984.¹ Funds for this program are made

¹Federal assistance in the form of formula grant program funds for urbanized areas was first authorized under Section 5 of the Urban Mass Transportation Act of 1964 as amended by the National Mass Transportation Assistance Act of 1974. The Section 5 program was the source of formula funds for eligible public transit operators within urbanized areas for capital and operating assistance from 1975 through 1983. National appropriations for the program were discontinued in 1984.

available from general fund appropriations and are distributed among the nation's urbanized areas on the basis of a statutory formula. In general, the formula funds are apportioned on the basis of population and population density for urbanized areas with less than 200,000 population. For urbanized areas with more than 200,000 population--such as the Milwaukee urbanized area, which includes much of Waukesha County--formula funds are apportioned on the basis of population and population density, fixed-guideway route miles, bus and fixed-guideway revenue vehicle miles, and transit system efficiency as measured by passenger miles of travel and operating expenses.

The Section 9 program is the primary source of federal funds for routine capital assistance needs--that is, bus and rail system replacements, equipment purchases, facility construction, and system modernization and rehabilitation. The Section 9 program is also the sole source of federal funds for transit operating assistance for urbanized areas. Beginning in 1987, the UMTA will also permit Section 9 grant recipients the option of using Section 9 capital assistance rather than operating assistance to fund the costs of privately owned capital components of transit services obtained through competitive procurement action. Eligible capital components are limited to capital items that are used in the operation of the contracted transit service. Under this policy, the total eligible capital costs are limited to the actual depreciation of the capital item or a fixed percentage of the total contract costs, whichever is lower. The UMTA has prescribed fixed percentage caps for four different categories of service as follows:

1. Twenty percent of total contract costs for elderly and handicapped, demand-responsive, and noncommuter paratransit services;
2. Twenty-five percent of total contract costs for regular bus service;
3. Thirty-five percent of total contract costs for commuter services, including express, park-and-ride, and vanpool services; and
4. Twenty-five percent of total contract costs for vehicle maintenance services.

In keeping with the policy of the current federal administration of reducing federal aid for transit operating assistance, the Surface Transportation Act of 1982 placed limits--or "caps"--on the amount of the annual allocation of formula funds to each urbanized area which could be used for operating assistance, based upon the total 1980 population of the area. Specifically, the funds available for use as operating assistance within an urbanized area are limited to a fixed percentage of the Section 5 operating assistance funds which were allocated by formula in 1982 as follows: 80 percent of the 1982 allocation for urbanized areas with one million or more persons, such as the Milwaukee urbanized area; 90 percent of the 1982 allocation for urbanized areas with 200,000 or more persons, but fewer than one million persons; and 95 percent of the 1982 allocation for urbanized areas with fewer than 200,000 persons.

During 1983 and 1984, formula capital assistance funds could be transferred for use as operating assistance on a dollar-for-dollar basis to bring the 1983 Section 5 and 1984 Section 9 urbanized area operating assistance allocations up to the amount specified by the funding cap. Formula capital assistance

monies could also be transferred to operating assistance to exceed the funding cap and bring 1983 Section 5 and 1984 Section 9 operating assistance levels back up to 100 percent of the 1982 level. A penalty was, however, involved for any transfer of funds over the operating assistance funding cap.² The designated recipients within all three urbanized areas of the Region took advantage of this transfer provision during 1983 and 1984. The transfer of formula capital funds to operating assistance has not been allowed since 1984. Consequently, the funds available for operating assistance during 1985 and 1986 were limited by the cap levels within each urbanized area. During 1987, the funds available for transit operating assistance for urbanized areas with one million or more people were reduced by about 3.7 percent. For the Milwaukee urbanized area, this has resulted in a reduction of about \$240,000 from the \$6.4 million in transit operating assistance funds available during 1985 and 1986, to about \$6.16 million in 1987.

For the Milwaukee urbanized area, the Counties of Milwaukee, Waukesha, Washington, and Ozaukee have been jointly designated as recipients of Section 9 formula funds. These recipients were designated in April 1975 by the Governor and the Southeastern Wisconsin Regional Planning Commission to receive formula funds that were allocated to the Milwaukee urbanized area at that time under the former Section 5 transit assistance program. In 1975, when this designation of recipients was made, there were no publicly owned and operated transit systems within the urbanized area. Milwaukee County was, however, in the final stages of acquiring the assets of the Milwaukee and Suburban Transport Company, which was the private transit company then serving Milwaukee County. This transaction was scheduled to be completed on July 1, 1975, at which time the County was to become the owner and operator of the public transit system within Milwaukee County. Outside Milwaukee County, transit service within the urbanized area in early 1975 was provided primarily by another private transit company--Wisconsin Coach Lines, Inc.--which operated commuter-oriented routes serving portions of Waukesha, Washington, and Ozaukee Counties, as well as the local bus system serving the City of Waukesha. At the time the designation of recipients was made, Waukesha County was seeking funding to support the commuter route operated by Wisconsin Coach Lines, Inc., between Waukesha and downtown Milwaukee; and the City of Waukesha was in the process of preparing a transit development program for the City's local transit system which considered as an option the subsidizing of the privately operated local bus system.

The Governor and the Regional Planning Commission designated each of the aforementioned four counties within the urbanized area as recipients of federal transit formula assistance funds because the Milwaukee urbanized area included portions of the four counties, because there was strong potential for more than one publicly owned and operated transit system to be developed within the urbanized area, and because each county was viewed as the potential operator

²As a penalty for transferring formula capital assistance funds for use as operating assistance over the specified funding cap, the UMTA required that one-third of the amount transferred be paid back to the Secretary of Transportation for use in the discretionary capital grant program nationwide. In other words, three dollars of capital assistance money were transferred to obtain two dollars of operating assistance money.

of transit services within its jurisdiction. In making this designation, it was further envisioned that if local municipalities within a county chose to subsidize a private transit operator or to own and operate their own transit systems, an equitable agreement would be amicably negotiated between the municipalities and the county concerned for sharing the federal transit formula assistance funds available to each county.

Currently, the Section 9 formula funds allocated to the Milwaukee urbanized area are distributed among the designated recipients having subsidized transit operations within their jurisdiction using a procedure that has been mutually agreed upon by the three public transit operators within the urbanized area³-- Milwaukee County, Waukesha County, and the City of Waukesha. Specifically, Section 9 funds available for capital and planning assistance are distributed among the three transit operators on the basis of need through a program of capital and planning assistance projects jointly developed by these operators. Section 9 funds available for operating assistance within the urbanized area are distributed by applying within the Milwaukee urbanized area the formula that is used to distribute Section 9 funds among the nation's urbanized areas. The transit operators chose this procedure in 1984 after considering several other options for distributing federal transit operating assistance, including procedures based upon annual transit ridership, annual transit passenger miles of travel, an equal proportion of operating deficits, an equal proportion of operating expenses, and an equal proportion of farebox revenues and local funds.

The national formula distributes Section 9 funds to urbanized areas with one million or more people, such as the Milwaukee urbanized area, in four distinct tiers. The distribution of funds under the first two tiers is based upon the 1980 population and population density of each urbanized area. The allocation of funds under the last two tiers is based upon operating data for the public transit systems within each urbanized area, including total revenue vehicle miles of service and passenger miles of travel, weighted by an efficiency factor. The efficiency factor measures operating expenses incurred per passenger mile of travel, and is calculated for each system and subsystem within the urbanized area.

A two-step procedure is used in applying the national formula to distribute Section 9 funds to the Milwaukee urbanized area's transit operators in Milwaukee and Waukesha Counties. In the first step, each of the four counties within the urbanized area is allocated a portion of the total funds allocated under the four separate funding tiers, based upon the national formula and the 1980 population; the 1980 population density; and the transit operating data attributable to the transit systems within each county, which are used by the UMTA in distributing the funds nationally for the particular federal fiscal year. The funds available for operating assistance are then distributed among the four counties in proportion to each county's allocated share of the total urbanized area funds.

³See SEWRPC Staff Memorandum, "Alternative Methods for Allocating Urban Mass Transportation Administration Section 9 Transit Assistance to Designated Recipients in the Milwaukee Urbanized Area: 1985," June 1984.

Because only Milwaukee and Waukesha Counties presently have subsidized transit operations within their jurisdiction and have a need for Section 9 operating assistance funds, a second step is applied to distribute the funds allocated to the other two counties within the urbanized area--Ozaukee and Washington Counties--which have no such need at this time. The funds initially allocated to these counties are re-allocated to Milwaukee and Waukesha Counties based upon the proportionate share of the total initial allocation of funds to these two counties.

Because Waukesha County contracts with other transit operators to provide the transit service it subsidizes, the County does not own any transit operating equipment, and therefore has not had a need to use Section 9 funds for capital assistance. The County has, however, used Section 9 formula funds since 1984, and Section 5 formula funds prior to that, for transit operating assistance.

In keeping with the process that was envisioned to be followed when the four counties were designated as recipients of federal formula transit assistance funds in 1975, Waukesha County has, since 1984, annually negotiated an agreement with the City of Waukesha concerning the allocation of Section 9 transit operating assistance funds. A similar agreement was negotiated annually between 1982 and 1984 concerning the division of Waukesha County's allocation of operating assistance funds under the former Section 5 program. The Section 9 operating assistance funds allocated to Waukesha County based on the aforementioned procedure will amount to approximately \$400,000 in 1987, or about 7 percent of the \$6.14 million in transit operating assistance funds available within the entire Milwaukee urbanized area. Waukesha County and the City of Waukesha have agreed to share this allocation equally in 1987, with both the City and County receiving approximately \$200,000 in transit operating assistance funds from the 1987 allocation of Section 9 funds.

Section 9B Funds: The Federal Surface Transportation Assistance Act of 1987 created a new capital assistance program under Section 9B. Section 9B permits some of the proceeds from the Mass Transit Account of the Highway Trust Fund to be apportioned annually among the Section 9 designated recipients within the nation's urbanized areas using the same formula applied to distribute funds under the Section 9 program, and essentially creates a capital-only Section 9 program. All provisions of the Section 9 program pertaining to use of funds for capital assistance will apply under the Section 9B program and recipients will need to submit only one grant application to request funds under both programs. Funds for the program are to be made available beginning in federal fiscal year 1988.

Section 16 Funds: Capital grants are available under Section 16(b)(2) to equip an agency to meet the specialized transportation needs of the elderly and handicapped. These grants are available only to private, nonprofit corporations providing coordinated specialized transportation services. This aid is provided to fill service gaps in areas where transit services for the general public do not operate or do not provide adequate transportation service for the elderly and handicapped. The Wisconsin Department of Transportation administers the Section 16(b)(2) program within Wisconsin for the UMTA. Recipients of these funds in Waukesha County have included The Ranch, Inc., and La Casa de Esperanza, Inc.

Section 18 Funds: Section 18 was added to the Urban Mass Transportation Act of 1964 by the Surface Transportation Assistance Act of 1978, creating a public mass transportation assistance formula grant program for areas of each state other than urbanized areas. Funds are apportioned to the governor of each state based on nonurbanized area population. Eligible recipients of these funds include state agencies, local public bodies, private transportation providers, and Indian reservations. Prior to federal fiscal year 1984, the Federal Highway Administration was responsible for administering the Section 18 program. The administration of the Section 18 program nationwide was transferred to the UMTA in federal fiscal year 1984. Within the State of Wisconsin, the Wisconsin Department of Transportation administers the Section 18 program for the UMTA and is the recipient of all Section 18 funds apportioned to the State. Up to 15 percent of each state's allocation may be used for planning, administration, coordination, and technical assistance. In addition, these funds may be used both for capital equipment purchases on an 80 percent federal-20 percent local match basis, and for operating assistance on a 50 percent federal-50 percent local match basis. As of 1986, Waukesha County had not used any Section 18 funds.

UMTA Administrative Regulations: Several administrative regulations restrict the availability of federal funds under the Urban Mass Transportation Act of 1964, as amended. Below are the more important of these regulations which are relevant to the use of UMTA urban transit assistance funds within Waukesha County:

1. No grants will be made unless the facilities and equipment proposed are the products of a continuing, cooperative, and comprehensive urban transportation planning process which includes the development of:
 - a. An officially endorsed transportation plan for the transportation system of the area describing policies, strategies, and new or improved facilities;
 - b. A staged multi-year program of transportation improvement projects consistent with the transportation plan--termed a transportation improvement program; and
 - c. Other planning and project development activities deemed necessary by state and local officials to assist in addressing transportation issues in the area--such as the preparation of a current transit system plan and program.
2. To be considered for funding under the Section 9 program, each grantee is required to develop, publish, afford an opportunity for a public hearing on, and submit for approval a program of projects that the recipient proposes to undertake using such funds.
3. When federal funds provide a portion of the cost of a project, the remaining portion must come from sources other than federal funds, with the exception of federal revenue sharing funds and funds from federal programs, other than UMTA programs, which have been certified to be eligible as local share funds. In order for funds from federal programs to be eligible as local share funds, the UMTA requires certification by the sponsoring federal program agency that the funds to be used as local

match money for UMTA grant programs will be used in accordance with all requirements and regulations governing the distribution and expenditure of the program concerned.

4. A detailed submission indicating compliance with the provisions of Title VI of the Civil Rights Act of 1964 regarding nondiscrimination on the grounds of race, color, or national origin must be on file with the UMTA before any financial assistance can be provided. Nondiscriminatory practices must be demonstrated for all UMTA-supported activities regarding:
 - a. The distribution of transit facilities and services and the benefits derived from such facilities and services;
 - b. The locational accessibility of transit facilities and services;
 - c. The adverse impacts of transit facilities and services on persons residing in the affected communities; and
 - d. The opportunity and ability for participation in the planning, programming, and implementation of transit facilities and services.
5. Public transportation programs and activities receiving federal financial assistance must comply with Section 504 of the Rehabilitation Act of 1973 regarding nondiscrimination on the basis of handicap. In order to comply with the federal regulations⁴ promulgated to implement the provisions of Section 504 as they apply to public transportation, funding recipients must meet the following requirements:
 - a. Funding recipients that employ 15 or more persons must adopt and file with the U. S. Department of Transportation procedures that incorporate appropriate due process standards which provide for the prompt and equitable resolution of complaints or grievances alleging any discriminatory action prohibited by federal regulations.
 - b. Funding recipients must prepare and submit to the U. S. Department of Transportation a program for providing public transportation services to handicapped persons. The program must be developed through a public participation process which allows for:
 1. Consultation during the planning process with handicapped persons and groups representing them, social service organizations, concerned state and local officials, and the Metropolitan Planning Organization.⁵

⁴See "Nondiscrimination on the Basis of Handicap in the Department of Transportation Financial Assistance Programs: Final and Proposed Rule," Federal Register, Volume 51, No. 100, May 23, 1986, pp. 18994-19038.

⁵The Southeastern Wisconsin Regional Planning Commission has been designated by the Governor as the official areawide metropolitan planning organization for the seven-county Southeastern Wisconsin Region.

2. A 60-day public comment period on the recipient's proposed program, during which at least one public hearing on the program must take place.
3. The distribution of notices and materials pertaining to the program in a form usable by persons with vision and hearing impairments.

Recipients may fulfill this obligation under the regulations by providing transportation service to handicapped persons using one of three service options:

1. By providing some form of demand-responsive, door-to-door, specialized transportation service which is accessible to wheelchair-bound and semi-ambulatory persons.
2. By providing fixed-route bus service which is accessible to wheelchair-bound and semi-ambulatory persons over the regular routes operated by the recipient on either a regularly scheduled or on-call basis by equipping buses used in fixed-route transit service with wheelchair lifts, ramps, or other accessibility features. The number of accessible buses would need to be sufficient to meet certain minimum service criteria.
3. By providing a mix of accessible specialized door-to-door transportation service and accessible bus service.

Whichever service option is ultimately selected by the recipient, it must meet specified minimum service criteria governing service area, service availability, fares, trip restrictions or priorities, waiting time, and user eligibility, subject to a maximum annual expenditure level by the recipient. A maximum annual expenditure level of 3 percent of the recipient's average operating expenses for all the public transportation services it provides, calculated based upon projected current year expenditures and expenditures for the two immediately preceding fiscal years, has been set forth in the regulations. The recipient is not required to spend more than the expenditure limit, even if, as a result, it cannot provide a level of service which meets all the service criteria for the option it has selected. In this case, how the recipient chooses to modify the service criteria for the particular service option it selects must be determined through the public participation process. If a recipient can provide a level of service which meets all the minimum service criteria for an amount less than the expenditure limit, then the limit can be ignored. The UMTA, as part of its regular triennial review of Section 9 recipients, will monitor each recipient to determine if it is actually providing the service called for in its program of handicapped transportation service. Based upon its findings, the UMTA may require that the recipient take corrective actions to ensure that the prescribed level of transportation service is actually provided.

6. All applicants for federal assistance must certify that they have afforded an adequate opportunity for public hearings on each proposed project. For Section 3 projects, notice for the hearing must be given at

least 30 days in advance, informing the public of all significant economic, social, or environmental issues and inviting the public to examine all project documents. For Section 9 projects, each applicant must certify that it has a locally developed process for soliciting and considering public comment prior to raising fares or implementing a major reduction of transit service.

7. If an applicant desires to provide any charter service using UMTA-funded equipment or facilities, it must first determine if there are any private charter operations who are willing and able to provide the charter service the applicant desires to provide. To the extent that there is at least one private operator, the applicant is prohibited from providing charter service using UMTA-funded equipment or facilities unless:
 - a. The applicant enters into a contract agreement with the private charter operator or operators to provide charter equipment or service for the private operator when requests for charter service exceed the capacity of the private operator, or when the private operator is unable to provide equipment which is accessible to elderly and/or handicapped persons;
 - b. The applicant is granted an exception by UMTA to provide charter service directly to the customer for special events to the extent that the private charter operator or operators are not capable of providing service; or
 - c. The applicant is in a nonurbanized area and is granted an exception by UMTA to provide charter service directly to the customer because the charter service provided by a private operator would create a hardship for the customer.

Any charter service that an applicant provides under any of the above conditions must be incidental charter service.

8. No federal assistance may be provided for the purchase or operation of buses unless the applicant agrees not to engage in school bus operations for the exclusive transportation of students and school personnel in competition with private school bus operators. This rule does not apply, however, to "tripper" service provided for the transportation of school children along with other passengers by regularly scheduled bus service at either full or reduced rates.
9. No federal financial assistance may be provided until fair and equitable arrangements have been made as determined by the Secretary of Labor to protect the interests of employees affected by such assistance. Such arrangements must include provisions protecting individual employees against a worsening of their positions with respect to their employment, collective bargaining rights, and other existing employee rights, privileges, and benefits.
10. All accounting systems for all transit systems eligible for federal aid must conform to a uniform system of account and record-keeping. This system, entitled, "Uniform System of Accounts and Records," is to facilitate

a clear definition of the economics and operating conditions of a transit system in the interest of more efficient planning, administration, and operation.

11. No federal assistance may be provided for a public transit project unless measures have been taken to encourage increased private sector involvement in the project. To implement this policy, UMTA regulations require recipients of UMTA funds to develop, adopt, and submit to the UMTA a process for the consideration of private enterprise participation and the private operation of public transportation services and support services to the maximum extent feasible. This process must include:
 - a. Notice to and early consultation with private providers in the development of new or restructured service, as well as in the periodic reexamination of existing service;
 - b. Periodic examination--at least every three years--of each route to determine if it could be more efficiently operated by a private enterprise;
 - c. A description of how new and restructured services will be evaluated to determine if they could be more effectively provided by private sector operation pursuant to a competitive bidding process;
 - d. The use of costs as a factor in the decision concerning private or public operation of transit services; and
 - e. A dispute resolution process which affords all interested parties an opportunity to object to the initial decision made by the local policy body.

At the time of the submission of the transportation improvement program described under item 1b above, the metropolitan planning organization is required to certify that the recipient's local process has been followed, and to describe how the local process led to the development of the transit projects contained in the current year element of the transportation improvement program. The metropolitan planning organization must also develop a process to ensure the fair resolution of disputes which cannot be resolved by the recipient's dispute resolution process.

12. No federal assistance may be provided until all eligible disadvantaged business enterprises (DBE's) and women's business enterprises (WBE's) have been afforded the opportunity to fairly and equitably participate in any proposed public transit proposals. The applicant must provide assurance of its adherence to meeting the specified goals.

STATE LEGISLATION

Two types of legislation which affect the provision of public transportation services have been enacted by the State of Wisconsin: 1) legislation authorizing financial assistance for the provision of general public and specialized

transportation services, and 2) legislation involving the administrative regulations and controls governing the establishment and operation of transit services.

Financial Assistance

Urban Public Transportation Assistance Programs: Financial assistance provided by the State for urban public transportation includes indirect aid, principally in the form of tax relief, and direct aid in the form of operating subsidies and planning grants. Indirect aid to urban public transit systems in Wisconsin was introduced in 1955 on the basis of the findings and recommendations of the 1954 Governor's Study Commission on Urban Mass Transit. The most significant of the 1955 measures is Section 71.18 of the Wisconsin Statutes, which provides a special method that can be used by privately owned urban public transit organizations to calculate their state income tax. To encourage urban bus systems to invest profits in new capital facilities and stock, the formula provides that net income after payment of federal income taxes is taxed by the State on the following basis:

1. An amount equivalent to 8 percent of the depreciated cost of carrier-operating property is exempt from the tax; and
2. The remaining portion of the net income is taxed at a rate of 50 percent.

Other Wisconsin Statutes giving urban public transportation systems tax relief are:

1. Section 76.54, which prohibits cities, villages, and towns from imposing a license tax on vehicles owned by urban transit companies.
2. Section 77.54(5), which excludes buses, spare parts and accessories, and other supplies and materials sold to common carriers for use in providing urban mass transportation services from the general sales tax imposed on goods and services.
3. Section 78.01(2)(d), which excludes vehicles engaged in urban public transportation from the fuel tax imposed upon motor fuel--such as diesel fuel--specifically used in transit vehicle operation.
4. Section 78.40(2)(c), which excludes vehicles engaged in urban public transportation from the fuel tax imposed upon special fuel--such as propane gas--specifically used in transit vehicle operation.
5. Section 78.75(1)(a), which allows taxi companies to obtain rebates of the tax paid on motor fuel or special fuel.
6. Section 341.26(2)(h), which requires that each vehicle engaged in urban public transportation service be charged an annual registration fee of \$1.00 unless a municipal license has been obtained for the vehicle.

Direct financial aid in the form of transit operating assistance is currently available under the Wisconsin urban mass transit operating assistance program. The program was first established under the 1973 State Budget Act, which appropriated a total of \$5 million in general-purpose revenue funds for transit

operating assistance during the 1973-1975 biennium. The program has continued to be funded at increasing levels in every subsequent budget biennium, most recently being appropriated a total of \$45.5 million for the 1987-1988 budget period under the 1987 State Budget Act. The program is authorized under Section 85.20 of the Wisconsin Statutes.

Under the program, local public bodies with populations of 5,000 persons or more that provide financial assistance to, or that actually operate, a public transit system are eligible for reimbursement by the Wisconsin Department of Transportation for a fixed portion of the total annual operating expenses of the transit system. State aids are available to cover up to 37.5 percent of an eligible transit system's total operating expenses. Eligible transit systems under the program include those providing fixed-route transit service and those providing shared-ride taxicab service. Waukesha County is projected to receive about \$364,600 under the state transit operating assistance program in 1987 to support the operation of its transit system.

Transit systems receiving state transit operating assistance are required to provide a reduced-fare program for elderly and handicapped persons during non-peak hours of operation. In addition, eligible projects must provide at least two-thirds of their transit service--measured in vehicle miles--within an urban area, defined as any area that includes a city or village having a population of 5,000 or more persons that is appropriate, in the judgment of the Wisconsin Department of Transportation, for an urban mass transportation system. Other restrictions of the State's operating assistance program include the following:

1. Projections of operating revenues and expenses must be based on an approved one-year "management plan" governing the operations of the participating transit system during the contract period.
2. The commitments of state funds and quarterly payments must be based upon projections of operating revenues and operating expenses for a calendar year contract period.
3. Departmental audits of each participating transit system must determine the actual operating expenses and revenues of the system during the contract period.
4. Contracts between the Wisconsin Department of Transportation and recipients may not exceed one year in duration.
5. Recipients must annually submit to the Wisconsin Department of Transportation a four-year program of transit improvement projects for their systems.

Specialized Transit Assistance Programs: Two funding programs for elderly and handicapped specialized transportation services were established under the 1977 State Budget Act. The two programs are authorized under Section 85.21 and Section 85.22 of the Wisconsin Statutes and are administered by the Wisconsin Department of Transportation.

Section 85.21 authorizes the provision of financial assistance to counties within the State for specialized transportation programs serving elderly and handicapped persons who would not otherwise have an available or accessible

method of transport. A proportionate share of funds under this program is allocated to each county in Wisconsin based on the estimated percent of the total statewide elderly and handicapped population residing in the county. In general, counties may use these funds for either operating assistance or capital projects to directly provide transportation services for the elderly and handicapped; to aid other agencies or organizations that provide such services; or to create a user-side subsidy program through which the elderly and the handicapped may purchase transportation services from existing providers at reduced rates. Counties must provide a local match equal to 20 percent of their allocations in order to receive their allocations. In addition, a county may hold its allocated aid in trust for the future acquisition or maintenance of transportation equipment.

Transportation services supported by funds available under this program may, at the direction of the county, carry members of the general public on a space-available basis, provided that priority is given to serving elderly and handicapped patrons. In addition, Section 85.21 requires that a co-payment, or voluntary donation, be collected from users of the specialized transportation service, and that a means for giving priority to medical, nutritional, and work-related trips be adopted if the transportation service is unable to satisfy all of the demands placed on it. Funding for this program during the 1987-1988 budget period was established at \$3.78 million by the 1987 State Budget Act. Waukesha County currently participates in this program to help support several specialized transportation projects administered by the Waukesha County Department of Aging. The 1987 budget for the specialized transportation program administered by the Department of Aging included approximately \$153,000 allocated to Waukesha County under this state program.

Under Section 85.22 of the Wisconsin Statutes, the State can supply private, nonprofit organizations that provide transportation services to the elderly and handicapped with financial assistance for the purchase of capital equipment. This program is the state counterpart to the federal aid program authorized under Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended. The state aids available under this program are distributed to applicants within the State on an 80 percent combined state-federal and 20 percent local matching basis. The program is administered jointly with the federal Section 16(b)(2) program by the Wisconsin Department of Transportation. In all cases, the applicant is responsible for providing the 20 percent local share of capital project costs.

Administrative Regulations and Controls

In addition to providing for financial assistance to urban public transit systems within the State, the Wisconsin Statutes provide organizational alternatives to counties and municipalities for the operation of urban public transit systems. The more important State legislation which defines county governmental powers relating to the operation of a public transit system is outlined below:

1. County Contract with Private Transit System Operators--Sections 59.968 (1) through (3) of the Wisconsin Statutes permit a county to financially assist private urban public transit companies operating principally within the county by: 1) direct subsidies, 2) purchasing of buses and leasing them back to the private company, and 3) acting as the agent for the private operator in filing applications for federal aid.

2. County Ownership and Operation of Transit Systems--Sections 59.968(4) through (8), 59.969, and 63.03(2)(x) of the Wisconsin Statutes permit a county to acquire a transportation system by purchase, condemnation, or otherwise, and to provide funds for the operation and maintenance of such systems. The term "transportation system" is defined as all land, shops, structures, equipment, property, franchises, and rights of whatever nature for the transportation of passengers. The acquisition of the system must be approved by a two-thirds vote of a county board. The county has the right to operate into contiguous or cornering counties. However, where operation into other counties would be competitive with the urban or suburban operations of other existing common carriers of passengers, the county must coordinate the operations with such other carriers to eliminate adverse financial impact for those carriers. Such coordination may include, but is not limited to, route overlapping, transfers, transfer points, schedule coordinations, joint use of facilities, lease of route service, and acquisition of route and corollary equipment. The law permits a county to use any street for transit operations without obtaining a license or permit from the local municipality concerned. The law requires the county to assume all the employer obligations under any contract between the employees and management of the system and to negotiate an agreement protecting the interest of employees affected by the acquisition, construction, control, or operation of the transit system. This labor protection provision is similar to Section 13(c) of the federal Urban Mass Transportation Act of 1964, as amended.
3. County Transit Commission--Section 59.967 of the Wisconsin Statutes provides for the creation of county transit commissions which are authorized to operate a transportation system to be used for the transportation of persons or freight. A county transit commission is to be composed of not fewer than seven members appointed by the county board. Members of the transit commission may not hold any other public office. A county transit commission is permitted to extend its transit system into adjacent territory within 30 miles of the county boundary. Institution of the transit system is subject to the limitations of Section 66.065 of the Wisconsin Statutes.
4. Joint Municipal Transit Commission--Section 66.30 of the Wisconsin Statutes permits any municipality to contract with another municipality or municipalities for the receipt or furnishing of services or the joint exercise of any power or duty authorized by statute. A "municipality" is defined, for purposes of this law, as any city, village, town, county, or regional planning commission. Thus, the law would permit any county, city, or village to contract with any other county, city, or village to receive or furnish transit services or even to establish a joint municipal transit commission.

State legislation also provides for the formation of certain special public transit districts and authorities. Section 66.94 of the Wisconsin Statutes permits the establishment of a metropolitan transit authority having the legal power to acquire, operate, and maintain a public transportation system. A public transportation system is defined to include subways, railways, and buses. However, the largest city within the boundaries of the metropolitan transit authority must have a population of 125,000 or more. Significantly, authorities created under this enabling legislation do not have taxing powers.

SUMMARY

This chapter has summarized pertinent federal and state legislation and regulations as they apply to the provision of financial assistance for public transportation service, and as they apply to transit organization and operation. The federal government is a major source of financial assistance for public transit services through five major programs relevant to Waukesha County. The U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), administers these programs, which were made available under the Urban Mass Transportation Act of 1964, as amended. Financial assistance for urban public transit systems is currently available under Section 3, primarily for capital purchase projects and rapid transit system construction costs; under Section 8 for planning assistance; and under Section 9 on a formula grant basis to designated recipients within urbanized areas for use toward operating assistance, capital equipment purchases, or planning projects.

Within the Milwaukee urbanized area, the Counties of Milwaukee, Waukesha, Ozaukee, and Washington have been designated as recipients of Section 9 formula funds. The Section 9 funds allocated annually to the urbanized area are distributed among the designated recipients having subsidized transit services within their jurisdiction, using a procedure mutually agreed upon by the three transit operators within the urbanized area. Section 9 funds available for planning projects or capital assistance projects are distributed on the basis of the need for such funds by each transit operator as reflected in a program of projects jointly developed by the three transit operators. Section 9 funds available for transit operating assistance are distributed using a process which applies within the urbanized area the national formula used to distribute funds among the urbanized areas nationwide. The transit operating assistance funds allocated to Waukesha County in this manner are currently, and have been in years past, divided between Waukesha County--which is a designated recipient of such funds--and the City of Waukesha--which is not a designated recipient but owns and operates its own local bus system--based upon an agreement which is annually negotiated between the County and the City. The negotiation of such an agreement is consistent with how such matters were envisioned to be settled when each of the four counties was originally designated as a recipient of UMTA formula transit assistance funds in 1975.

Two other transit assistance programs were also authorized under the Urban Mass Transportation Act of 1964, as amended, and are also administered by the UMTA. Section 16 provides financial assistance for the purchase of vehicles and equipment to private nonprofit agencies or corporations that provide specialized transportation to elderly and handicapped individuals. Section 18 provides financial assistance to nonurbanized areas on a formula grant basis.

The Wisconsin Statutes provide several programs for financing public transportation services. The Wisconsin Department of Transportation administers these programs, which provide financial assistance for both general and specialized transportation, including: an urban transit operating assistance program authorized under Section 85.20 of the Wisconsin Statutes, which provides operating assistance to communities with populations of more than 5,000 persons supporting general public transit systems; a specialized transportation assistance program authorized under Section 85.21 of the Wisconsin Statutes, which provides financial assistance to counties for elderly and handicapped transportation projects; and a specialized transit assistance program authorized under

Section 85.22 of the Wisconsin Statutes which, together with funds available under the UMTA Section 16(b)(2) program, provides capital assistance to private nonprofit organizations providing specialized transportation services.

The Wisconsin Statutes also provide several organizational alternatives to counties for the operation of public transit services. These alternatives include: county contract for services with a private operator, county ownership and operation of an existing or new county department, and ownership and operation by a single county or joint county transit commission.

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Chapter V

TRANSIT SERVICE OBJECTIVES AND STANDARDS

INTRODUCTION

One of the critical steps involved in preparing a transit system plan is the articulation of the objectives to be served by the transit system, together with the identification of supporting standards which can be used to measure the degree of attainment of the objectives. The objectives and standards provide the criteria upon which the performance of the existing transit system may be assessed, alternative service plans designed and evaluated, and recommendations for improvement made. The objectives should, therefore, comprehensively represent the level of transit service and system performance desired by Waukesha County. The standards should permit direct measurement of the extent to which the objectives are being attained. Only if the objectives and standards clearly reflect transit-related goals will the recommended transit system plan provide the desired level of service within the limits of available financial resources.

The following sections of this chapter present the public transit objectives, principles, and standards formulated and approved by the advisory committee guiding the county transit plan preparation effort, and used in the performance evaluation of the existing transit system and in the subsequent design and evaluation of the alternative short-range transit plans. A glossary of technical terms which are used in this chapter or which appear in other sections of this report is presented in Appendix B.

OBJECTIVES

Transit service objectives and standards implicitly reflect the underlying values of the elected officials and citizens of the community to be served. The task of formulating objectives and standards should thus involve actively interested and knowledgeable public officials and private citizens representing a broad cross-section of interests in the community, as well as transit technicians. Accordingly, one of the important functions of the Waukesha County Mass Transit Advisory Committee was to articulate transit service objectives and supporting standards for the Waukesha County transit system. By drawing upon the collective knowledge, experience, views, and values of the members of the Committee, it is believed that a meaningful expression of the public transit system performance desired by Waukesha County was obtained, and a relevant set of transit service objectives and supporting standards defined.

The specific objectives adopted expand upon an overall statement of transit policy for the Waukesha County transit system agreed to by the Advisory Committee as follows: Public transit should be provided in Waukesha County to those areas of urban development that are fully developed to medium and high population and employment densities if such services can be provided economically and efficiently, and promote efficiency in the total transportation system.

More specifically, the following objectives were adopted by the Waukesha County Mass Transit Advisory Committee:

1. Public transit should serve those areas of the County that can be efficiently served, including those areas of urban development that are fully developed to medium or high densities, and, particularly, the transit-dependent population within those areas.
2. The public transit system should promote transit utilization and provide for user convenience, comfort, and safety.
3. The public transit system should promote efficiency in the total transportation system.
4. The transit system should be economical and efficient, meeting all other objectives at the lowest possible cost.

PRINCIPLES AND STANDARDS

Complementing each of the foregoing transit service objectives is a planning principle and a set of service and design standards, as set forth in Table 23. The planning principle supports each objective by asserting its validity. Each set of standards is directly related to the transit service objective, and serves several purposes, including: to facilitate quantitative application of the objectives in the evaluation of the performance of the existing transit system; to provide guidelines for the consideration of new or improved transit services; and to provide warrants for capital projects. The standards are intended to include all relevant and important measures which would help to indicate the degree to which existing or proposed transit services contribute to the attainment of each objective.

The performance evaluation of the existing transit system utilized in the current study included assessments of transit performance on both a systemwide and individual route basis. The service standards set forth in this chapter represent a comprehensive list from which specific performance standards and measures, as deemed appropriate, were drawn in conducting the systemwide and route performance evaluations. A more complete description of the evaluation process is presented in Chapter VI.

OVERRIDING CONSIDERATIONS

The objectives and standards set forth in Table 23 were intended to be used to guide the evaluation of the performance of the existing transit system and the design and evaluation of public transit system service and facility improvements. However, any application of the objectives and standards in the preparation of a transit development plan for the Waukesha County transit system must recognize several overriding considerations.

First, it must be recognized that an overall evaluation of the existing transit system performance and of alternative transit service plans must be made on the basis of cost. Such an analysis may show that attainment of one or more

Table 23

PUBLIC TRANSIT OBJECTIVES, PRINCIPLES, AND STANDARDS FOR THE WAUKESHA COUNTY TRANSIT PLAN

Objective	Principle	Standards
1. Public transit should serve those areas of the County that can be efficiently served, including those areas of urban development that are fully developed to medium or high densities, and, particularly, the transit-dependent population within those areas	Public transit can provide an important means of access for all segments of the population, but particularly for low- to middle-income households, the youth and the elderly, and the transportation-handicapped	<ol style="list-style-type: none"> 1. Local fixed-route transit service should be provided within areas of contiguous high- and medium-density urban development^a 2. Express transit service should be provided in major travel corridors which connect concentrations of urban development within the County with each other and with the Milwaukee central business district 3. Rapid transit service over freeways should be provided in major travel corridors to connect major concentrations of urban development within the County to the Milwaukee central business district 4. The accessibility provided by the transit system should be adjusted to effectively serve the current land use pattern within the County by providing a higher relative accessibility to areas of high- and medium-density development than to areas of low-density development and to those areas which should be protected from development 5. The population served, particularly that portion which is transit-dependent, should be maximized^b 6. The number of jobs served should be maximized^c 7. Public transit service to commercial and industrial centers should be maximized
2. The public transit system should promote transit utilization and provide for user convenience, comfort, and safety	The benefits of a public transit system are, to a large extent, greatly related to the degree to which it is used. The extent of such use, as measured by public transit ridership, is a function of the degree to which the transit facilities and services provide for user convenience, comfort, and safety	<ol style="list-style-type: none"> 1. Ridership on the public transit system should be maximized 2. Public transit service should be designed to provide adequate capacity to meet existing and projected demand. The average maximum load factor^d during peak periods should not exceed 1.00 for rapid and express transit service and 1.33 for local transit service. During off-peak periods and at the 10-minute point,^e the maximum load factor should not exceed 1.00 3. The following minimum travel speeds should be provided on the transit system: 10 miles per hour for local transit service, 20 miles per hour for express transit service, and 30 miles per hour for rapid transit service 4. The public transit system should provide a level of service commensurate with potential demand. Operating headways for all fixed-route public transit service should be capable of accommodating passenger demand at the recommended load standards 5. The public transit system should be designed and operated to maximize schedule adherence and be "on time" at least 95 percent of the time^f 6. Fixed-route public transit stops should be located as follows: <ol style="list-style-type: none"> a. For local transit routes, stops should be located two to three blocks apart along the entire route b. For express transit routes, stops should be located at local stop spacing within the central business district, one-half mile apart in urban high-density areas, one mile apart in urban medium-density areas, and two miles apart in urban low-density areas, and at major traffic generators. Such stop spacing would generally provide for stops at intersections with major arterials c. For rapid transit routes, stops should be located at local stop spacing within the central business district; at terminals and park-ride lots located at the outlying end of the route; and along line-haul portions of the route, providing a stop does not add more than three minutes to the travel time for the route 7. Public transit routes should be direct in alignment, with a minimum number of turns, and arranged to minimize transfers and duplication of service which would discourage transit use 8. Local transit service should have route spacings of one-half mile in high-density and medium-density areas 9. Rapid and express public transit service should be extended as warranted to perform a collection-distribution function at the ends of the route in order to maximize the convenience of transit users 10. To provide protection from the weather, bus passenger shelters of an attractive design should be constructed at all park-ride terminals and other rapid transit service loading points, and should be constructed at major express and local service loading areas^g 11. Paved passenger loading areas should be provided at all regular fixed-route transit loading and unloading points, and all such points should be marked by easily recognizable bus stop signs. 12. Each public transit vehicle should be rehabilitated or replaced at the end of its maximum service life, which shall be defined as follows: <ol style="list-style-type: none"> a. For diesel-powered buses with a seating capacity of more than 25 passengers, maximum service life should be considered to range from 12 years when the average mileage per year is more than 60,000 miles, to 15 years when the average mileage per year is fewer than 50,000 miles b. For diesel- or gasoline-powered buses with a seating capacity of fewer than 25 passengers, the maximum service life should be considered to average five years or 100,000 miles 13. Preventive maintenance program standards should be established to achieve, at a minimum, 6,000 miles without in-service breakdown 14. Sufficient off-street automobile parking should be provided at park-ride terminal locations for rapid and express transit routes to accommodate the total parking demand generated by trips which change from auto or other modes to public transit

Table 23 (continued)

Objective	Principle	Standards
3. The public transit system should promote efficiency in the total transportation system	Public transit facilities and services can promote economy and efficiency in the total transportation system. The public transportation system supplies additional passenger transportation capacity which can alleviate peak loadings on highway facilities in heavily traveled corridors and assist in reducing the demand for land necessary for parking facilities at major centers of land use activity. Efficient public transit service also has the potential to reduce energy consumption and air pollutant emissions	<ol style="list-style-type: none"> 1. The total amount of energy, and the total amount of energy per passenger mile--particularly petroleum-based fuels--consumed in operating the total transportation system, of which the transit system is an integral part, should be minimized 2. The amount of highway system capacity which must be provided to serve travel demand should be minimized
4. The transit system should be economical and efficient, meeting all other objectives at the lowest possible cost.	The total resources of the County are limited, and any undue investment in transportation facilities and services must occur at the expense of other public and private investments; therefore, total transportation costs should be minimized for the desired level of service	<ol style="list-style-type: none"> 1. The operating and capital investment expenses for the public transit system should be minimized and reflect efficient utilization of resources 2. The amount of transit system operating expenses recovered through operating revenues should be maximized. New transit services should have a percentage recovery of operating costs from farebox revenues which equals or exceeds the existing systemwide average 3. The public subsidy required per transit ride should be minimized 4. The direct benefits derived from the transit system and any transit transit service improvements should exceed the direct costs of the transit system or improvements

^aThe categories of urban residential land use development densities shall be defined as follows:

Category	Number of Dwelling Units per Net Residential Acre	Number of Persons per Gross Square Mile
Urban High Density.....	24.5-63.0	10,735-25,000
Urban Medium Density.....	8.1-24.4	3,882-10,734
Urban Low Density.....	2.5-8.0	1,220-3,881
Suburban.....	0.7-2.4	368-1,219
Rural.....	0.7	368

^bResidential and nonresidential land uses shall be considered served by fixed-route public transit service when located within the following distances of the various types of transit service:

Service Type	Maximum Distance			
	Residential Land Use		Nonresidential Land Use	
	Walking	Driving	Walking	Driving
Rapid.....	One-half mile	3 miles to park-ride lot	One-half mile	--
Express.....	One-half mile	3 miles to park-ride lot	One-half mile	--
Local.....	One-quarter mile	--	One-quarter mile	--

^cJobs shall be considered served when located within the same maximum walking distances for the various types of transit service noted above for nonresidential land uses, and when scheduled bus service is provided at times which permit use by employees.

^dThe average maximum load factor is calculated by dividing the number of patrons at the maximum loading point of a route by the number of seats at that point during the operating period.

^eThe 10-minute point is a point located 10 minutes' travel time from the maximum loading point of a route.

^f"On time" is defined as schedule adherence within the range of zero minutes early and three minutes late.

^gConstruction of bus passenger shelters at transit loading points should generally be considered where one or more of the following conditions exist:

- The location has boarding passenger volumes of 50 or more passengers per day.
- The location is a major passenger transfer point between bus routes.
- The location serves major facilities designed specifically for the use of, or is frequently used by, elderly or handicapped persons.

Source: SEWRPC.

of the standards is beyond the economic capability of the community and, therefore, that the standards cannot be met practically and must be either modified or eliminated.

Second, it must be recognized that a transit system is unlikely to fully meet all the standards, and that the extent to which each standard is met, exceeded, or violated must serve as the final measure of the ability of the transit system to achieve the objective which a given standard complements.

Third, it must be recognized that certain intangible factors, including the perceived value of transit service to the community and potential acceptance by the concerned elected officials, must be considered in the preparation and selection of a recommended plan. Inasmuch as transit service may be perceived as providing a valuable service within the community, the community may decide to initiate or retain such services regardless of its performance or cost. Moreover, only if a considerable degree of acceptance exists will service recommendations be implemented and their anticipated benefits realized.

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Chapter VI

TRANSIT SYSTEM PERFORMANCE EVALUATION

INTRODUCTION

This chapter evaluates the performance of the transit system based upon the transit service objectives and standards set forth in Chapter V of this report. As a result of this evaluation, areas of efficient and inefficient operation are identified.

Four objectives for the provision of transit services were identified in Chapter V. Table 24 lists these objectives and summarizes the standards which were used to determine whether these objectives had been met. Not all of the standards under each objective were used in the evaluation process. More specifically, Standards No. 5, 6, 7, 8, and 9 under Objective No. 2 were intended to serve as guidelines in the design of new services. Based on an examination of the existing routes by the Commission staff, it was found that these standards were met in the design and operation of the current routes. Other standards under Objective No. 2, including Standards No. 10 through 14, were intended to serve as warrants for providing capital equipment and facilities for the transit system. These standards will be used in the development of the program of recommended capital projects. A final standard that was not used in the performance evaluation--Standard No. 4 of Objective No. 4--is intended to be used in evaluating alternative transit service improvements.

The performance evaluation was conducted at two levels, using the sets of performance measures set forth in Table 25. These measures summarize the quantitative application of the standards used in the performance evaluation. At the first level, an assessment of transit performance was made on a systemwide basis to ascertain the extent to which the transit system currently serves the existing land use pattern, population, and employment opportunities within the County, as well as its contribution to the efficiency of the total transportation system. At the second level of evaluation, the performance of each route in the transit system was evaluated and routes rank-ordered on the basis of performance. The following sections of this chapter present the findings of the evaluation process. These findings were used to develop the alternative transit system plans described in Chapter VII of this report.

SYSTEMWIDE PERFORMANCE EVALUATION

A systemwide evaluation of the transit system was conducted against the transit service objectives and standards set forth in Chapter V of this report. A determination of the ability of the transit system to achieve the agreed-upon objectives was accomplished by application of the standards and performance measures related to Objectives No. 1 and 4.

STANDARDS USED IN THE PERFORMANCE EVALUATION OF THE EXISTING TRANSIT SYSTEM

Source: SEWRPC.

Map 17 shows the extent of the current service area of the routes of the Waukesha County transit system. Standards No. 1, 2, and 3 under Objective No. 1 serve as the basis for evaluating where fixed-route transit service should be provided within Waukesha County.

80

Table 25

**APPLICATION OF SPECIFIC PERFORMANCE MEASURES
IN THE PERFORMANCE EVALUATION PROCESS**

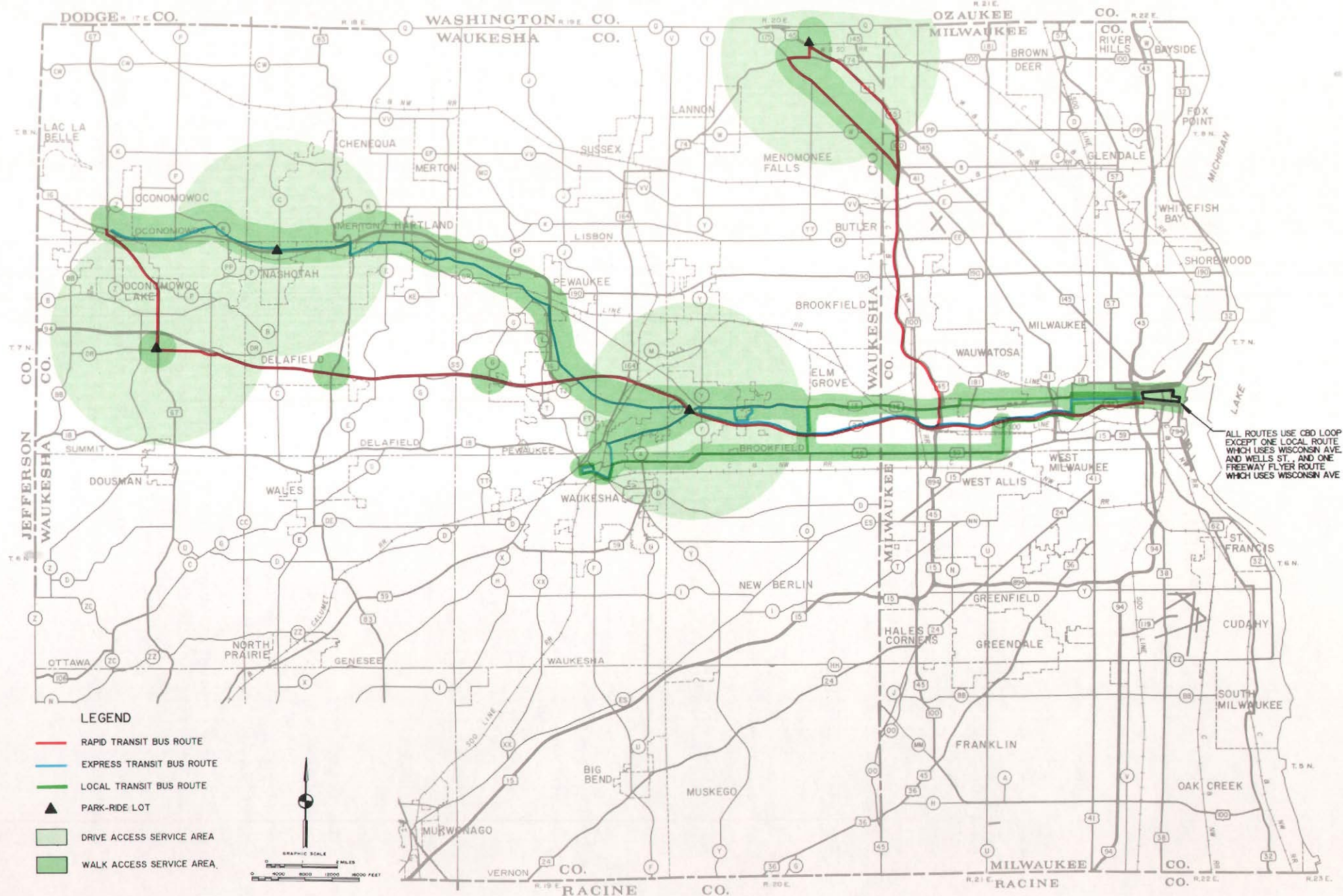
Performance Measure by Objective	Application in Evaluation Process	
	Systemwide Evaluation of Service to Land Uses	Route Performance Evaluation
<u>Objective No. 1--Provide Service to Urban Portions of County that Can be Efficiently Served</u>		
1. Areas served by local express or rapid transit service...	x	--
2. Total population served by a bus route.....	x	--
3. Total jobs served by a bus route.....	x	--
4. Major regional commercial, office, and industrial centers served by a bus route.....	x	--
<u>Objective No. 2--Promote Transit Utilization and Provide for User Comfort, Convenience, and Safety</u>		
1. Revenue passengers.....	--	x
2. Revenue passengers per vehicle hour.....	--	x
3. Revenue passengers by scheduled bus run.....	--	x
4. Average vehicle speeds.....	--	x
<u>Objective No. 3--Promote Efficiency in the Total Transportation System</u>		
1. Passenger miles per gallon of petroleum-based fuel.....	x	--
2. Impacts on highway capacity due to transit system operation.....	x	--
<u>Objective No. 4--Provide Economical and Efficient Service</u>		
1. Operating expenses per vehicle hour by expense category.....	--	x
2. Percent of operating expenses recovered by operating revenues.....	--	x
3. Total operating deficit.....	--	x
4. Total operating deficit per passenger.....	--	x
5. Local share of operating deficit.....	--	x
6. Local share of operating deficit per passenger.....	--	x

Source: SEWRPC.

the Waukesha County transit system provide fixed-route local transit service, one operating between the City of Waukesha and downtown Milwaukee principally over W. Greenfield Avenue (STH 59), and the other route operating along W. Blue Mound Road (USH 18) between the Milwaukee County line and the Brookfield Square Shopping Center-Executive Drive Office Park. In addition, local fixed-route transit service is provided within the City of Waukesha by the City's fixed-route transit system--Waukesha Metro Transit. Consequently, the local fixed-route transit services currently being provided within the County are sufficient to meet this standard.

Standards No. 2 and 3 under Objective No. 1 provide guidance concerning the provision of express and rapid transit services within the County. In this respect, Standard No. 2 states that express transit service should be provided

SERVICE AREA FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: 1987



Source: SEWRPC.

within major travel corridors to connect concentrations of urban development within the County with each other and with the Milwaukee central business district. Standard No. 3 states that rapid transit service should be provided over freeways within major travel corridors to connect major concentrations of urban development within the County to the Milwaukee central business district. The Waukesha County transit system currently includes two routes which provide express fixed-route transit service--one operating between the City of Oconomowoc and downtown Milwaukee over STH 16, Blue Mound Road, and IH 94; and one operating between the City of Waukesha and downtown Milwaukee over Blue Mound Road and IH 94. In addition, the Waukesha County transit system has two rapid transit, or "freeway flyer" routes--one operating between the Village of Menomonee Falls and the Milwaukee central business district over USH 45 and IH 94; and one operating between the City of Oconomowoc and downtown Milwaukee over IH 94. These four routes currently serve the major concentrations of urban development within the County, connecting these concentrations with major attractor and work-related trips in the Milwaukee central business district.

It was noted in Chapter III of this report that the largest concentrations of Waukesha County residents that work in the Milwaukee central business district are located in the eastern half of the County, principally within the City of Brookfield, the City of Waukesha, the Village of Menomonee Falls, and the City of New Berlin. Of these four communities, only the Village of Menomonee Falls is served by a rapid transit freeway flyer bus route, which operates for almost all its length between the Village and downtown Milwaukee without any intermediate stops. Transit service between the Cities of Waukesha and Brookfield and downtown Milwaukee is principally provided as express bus service, although the freeway flyer route operating between the City of Oconomowoc and downtown Milwaukee over IH 94 does stop at the Goerke's Corners public transit station, and serves both the City of Waukesha and the City of Brookfield on its single morning in-bound and single afternoon out-bound run each weekday. Transit service between the City of New Berlin and downtown Milwaukee is provided primarily by the local bus routes operated between the City of Waukesha and downtown Milwaukee over W. Greenfield Avenue. Although both the express route serving the Cities of Waukesha and Brookfield and the local bus route serving the City of New Berlin operate for a portion of their length over IH 94, the amount of nonstop service provided over these routes is not sufficient to qualify these routes as providing "rapid transit" or freeway flyer service.

It should be noted that Waukesha County has in the past attempted to expand the freeway flyer transit service provided within the County. Two freeway flyer routes providing transit service between the Cities of Brookfield and New Berlin and downtown Milwaukee were implemented as part of the expansion of Waukesha County transit services in April 1981. However, low ridership and high operating deficits resulted in the discontinuation of both routes, with the route serving the City of New Berlin discontinued in May 1983 and the route serving the City of Brookfield discontinued at the end of December 1986.

Standard No. 4 under Objective No. 1 states that the transit system should provide a higher level of accessibility to areas of high- and medium-density development than to areas of low-density development and areas where development is not desired. Transit service within the County is currently being provided generally in accordance with this standard. In this respect, a substantial level of local fixed-route transit service is being provided only within the City of Waukesha, the only major area within the County that has been developed to the densities that are necessary to support efficient local

transit service. Although no other area in the County is served by as high a level of transit service as that provided in the City of Waukesha, other major concentrations of urban development within the County are served by lesser levels of public transit service, with that service being principally designed to serve work-related travel between the County and the Milwaukee central business district. The vast majority of the County, consisting of areas low in suburban-density development and rural areas, is not served by any form of regular fixed-route transit service.

Service Provided to Population and Employment

The fifth standard under Objective No. 1 states that the population served by the transit system should be maximized. About 94,000 persons reside within the service area of the Waukesha County transit system in Waukesha County. This service area population represents about 33 percent of the total resident population of the County. About 30,000 persons, or 32 percent of the 94,000 persons, reside within both walking distance of a bus stop and driving distance of a park-ride lot. About 26,000 persons, or 28 percent of the 94,000 persons, reside only within walking distance of one of the routes of the transit system. About 38,000 persons, or 40 percent of the 94,000 persons, reside only within driving distance of one of the four park-ride lots within the County that are served by the rapid and express bus routes of the transit system.

The relatively low percentage of the county population that is served by the routes of the transit system reflects the fact that most of the population is located in areas of the County that are not yet fully developed for urban uses or to the densities necessary to support transit service. The information presented in Chapter III of this report indicated that the greatest need for public transit in Waukesha County is in the City of Waukesha. Currently, two of the six routes of the county transit system serve the City of Waukesha, along with the City's regular local fixed-route transit system.

Standard No. 6 under Objective No. 1 states that the number of jobs served by the transit system should be maximized. To evaluate this standard, an assessment was made of the number of jobs currently located within walking distance of a bus stop. In making this assessment, only those routes providing transit service that could be used by Waukesha County residents to access employment opportunities within Waukesha County were considered. Consequently, the transit service provided by the two freeway flyer routes subsidized by the County was not considered since the service provided over these routes is designed primarily to carry Waukesha County residents to the Milwaukee central business district. About 19,000 jobs, representing 15 percent of the total employment of Waukesha County, are served by the remaining four routes of the Waukesha County transit system. The vast majority of these jobs are located within the City of Waukesha and within the City of Brookfield along the Blue Mound Road corridor.

It should also be noted that the routes of the county transit system also provide access for Waukesha County residents to jobs within Milwaukee County. Within the Milwaukee central business district, which is the primary focus of the routes of the Waukesha County transit system, approximately 94,000 jobs are within walking distance of a stop on a county bus route. The routes of the transit system also provide access to employment opportunities within Milwaukee County along W. Clybourn Street west of the central business district to N. 35th Street; along W. Greenfield Avenue between the Milwaukee-Waukesha

County line and N. 70th Street; and along W. Blue Mound Road and W. Wisconsin Avenue between the county line and the Milwaukee central business district. An additional 52,000 jobs within Milwaukee County are within walking distance of the county bus routes operated within these corridors. In total, about 146,000 Milwaukee County jobs, representing 27 percent of the total Milwaukee County employment of approximately 538,000 jobs, are within walking distance of a stop on a Waukesha County bus route.

Standard No. 3 under Objective No. 2 states that public transit service to commercial and industrial centers should be maximized. To measure compliance with this standard, the major commercial and industrial centers within Waukesha County that are served by the Waukesha County transit system were determined. The major commercial and industrial centers identified in the County are listed in Table 26 and located on Map 18. Of the eight centers identified, four are not directly served by routes of the Waukesha County transit system, including all three of the major industrial centers and one of the four office development centers. With regard to the Butler industrial area and the New Berlin Industrial Park, Waukesha County attempted to provide these industrial centers with local transit service in 1981 by subsidizing the operation of two Milwaukee County Transit System local feeder bus routes. The two feeder routes were part of a package of seven new bus routes implemented by Waukesha County on April 1, 1981. However, low transit ridership and high subsidy levels resulted in the discontinuation of the local feeder bus routes serving the Butler industrial area and the New Berlin Industrial Park at the end of September and October 1981, respectively. With regard to the Prairie Avenue industrial area within the City of Waukesha, this area is partially served by one route of the local fixed-route bus system serving the City of Waukesha. The City's local transit system has also received and approved a request to extend transit service to the Crossroads Corporate Center located near the intersection of IH 94 and Barker Road in the Town of Brookfield after construction of the center is completed in the fall of 1987. The Crossroads Corporate Center is not directly served by a route of the Waukesha County transit system. Passengers on the routes of the Waukesha County transit system serving the City of Waukesha can transfer to the City's local transit system to access these two centers. It should again be noted that the primary focus of the Waukesha County transit system is the Milwaukee central business district, which represents the largest center of commercial activity within the Milwaukee urbanized area, as well as the Southeastern Wisconsin Region.

Contributions to the Efficiency of the Total Transportation System

The third transit service objective concerns the operation of public transit services and facilities which promote both economy and efficiency in the total transportation system. This objective is supported by two standards relating to utilization of energy and the provision of adequate highway system capacity.

The first standard under this objective requires that the amount of energy, particularly petroleum-based motor fuels, utilized in operating the transportation system be minimized. This standard is intended to measure the potential energy savings of public transit services based upon the assumed better energy efficiency of travel by transit than travel by automobile. It will not be possible to determine if the total amount of energy is currently being minimized in the operation of the total transportation system until alternative transit service plans are developed and evaluated. However, it is possible to compare the relative energy efficiency of the current transit operation with that of

Table 26

**MAJOR COMMERCIAL AND INDUSTRIAL
CENTERS IN WAUKESHA COUNTY: 1987**

Code Number on Map 18	Commercial or Industrial Center	Served by Waukesha County Transit System
1	Major Retail and Service Center ^a Brookfield Square Shopping Center.....	Yes
2 3 4	Major Industrial Centers ^b Butler Industrial Area..... New Berlin Industrial Park..... Waukesha Prairie Avenue Industrial Area....	No No No
5 6 7 8	Other Significant Concentrations of Office Development Bishop's Woods Office Development..... Deer Creek Executive Drive Office Development..... Brookfield Lakes Corporate Center..... Crossroads Corporate Center.....	Yes Yes Yes No

^a Defined as those retail and service lands within designated central business districts, strip shopping districts, or shopping centers which meet at least five of the following six criteria: 1) two department stores; 2) 10 additional retail and service establishments; 3) combined average annual sales totaling \$30 million or more; 4) a combined net site area totaling 20 acres or more; 5) the ability to attract at least 3,000 shopping trips daily; and 6) an accessibility to a population of at least 100,000 within a radius of 10 miles or 20 minutes one-way travel time.

^b Defined as those contiguous U. S. Public Land Survey quarter sections having 250 acres or more of net industrial land or a minimum of 3,500 industrial employees.

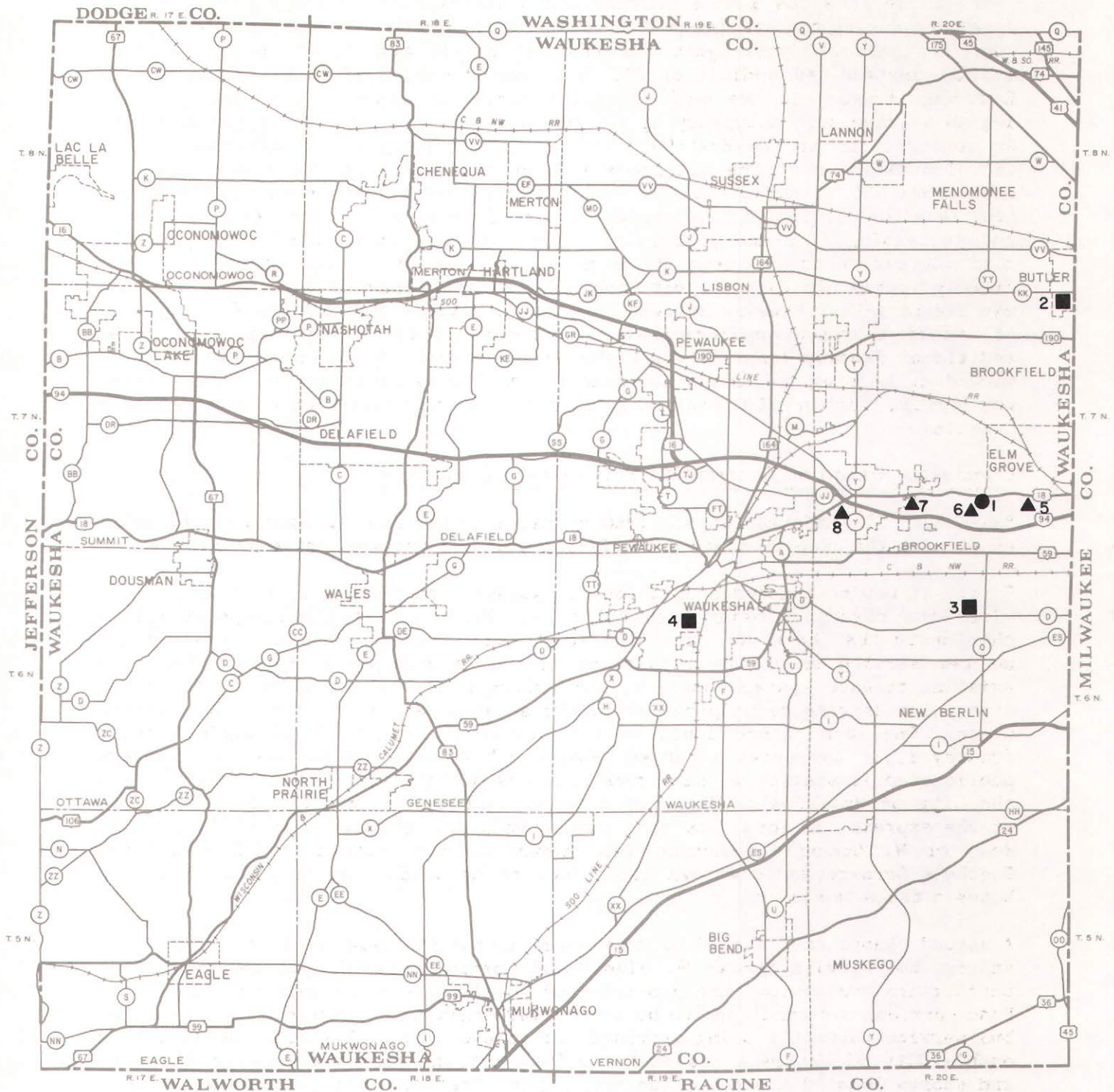
Source: SEWRPC.

automobile travel on the highway system. Based on 1986 operating information for the transit system, approximately 439,000 vehicle miles were operated on the Waukesha County transit services, using approximately 87,000 gallons of diesel fuel--an operating efficiency of about 5 miles per gallon. Approximately 5.71 million passenger miles of travel were made on the transit system during 1986, or about 13 passenger miles per total vehicle mile operated. Based on these figures, the transit system served about 65 passenger miles of travel for every gallon of diesel fuel consumed in providing transit service. This compares with a figure of 26 passenger miles per gallon of gasoline consumed for work-related automobile travel during 1986 within the Milwaukee urbanized area. Thus, on an average weekday, the operation of the Waukesha County transit system permits the saving of 466 gallons of motor fuel. The figures for automobile travel assume an average auto occupancy of 1.2 persons for work-related travel and an average 1986 automobile fuel efficiency of 21 miles per gallon. A comparison was made against work-related automobile travel, since the primary trip purpose of transit passengers using the Waukesha County transit system is work-related travel.

The second standard under Objective No. 2 states that the amount of highway system capacity provided to serve total travel demand should be minimized. The intent of this standard is to measure the impact of the additional passenger transportation capacity that is provided by the public transportation system on peak loadings on highway facilities in heavily traveled corridors and on the need for improvements to existing highway facilities. Currently, transit service on five of the six routes operated by the transit system is provided

Map 18

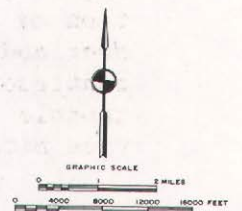
MAJOR COMMERCIAL AND INDUSTRIAL CENTERS IN WAUKESHA COUNTY: 1987



LEGEND

- MAJOR RETAIL AND SERVICE CENTER
- MAJOR INDUSTRIAL CENTER
- ▲ OTHER SIGNIFICANT CONCENTRATION OF OFFICE DEVELOPMENT
- 2 REFERENCE NUMBER (SEE TABLE 26)

Source: SEWRPC.



using IH 94 for that portion of the routes which operates in Milwaukee County between the Zoo Freeway and downtown Milwaukee. On an average weekday in April 1987, these five bus routes carried approximately 270 passengers in the peak direction during the evening peak hour over this portion of the East-West Freeway. If these 270 passengers had not used public transit but had used automobiles instead, an additional 235 autos would have used this segment of the East-West Freeway in the peak direction during the evening rush hour, assuming an average auto occupancy of 1.2 persons per auto for work-related trips. As this portion of the East-West Freeway is currently one of the most heavily traveled segments of the Milwaukee freeway system during the peak hours, an additional 235 automobile trips would have a significant impact on the peak-hour level of service on this segment of the freeway by further reducing speeds and increasing stop-and-go driving. This increase in automobile trips would also contribute to the need for a major improvement to this segment of the freeway system. In this respect, the 235 additional automobile trips that would use the East-West Freeway between downtown Milwaukee and the Zoo Freeway (USH 45) would represent approximately 20 percent of the design capacity of one additional freeway lane. The Waukesha County transit system can, therefore, be viewed as helping to reduce the need for additional improvements to the highway system within the east-west corridor between Milwaukee and Waukesha Counties.

Conclusion Based on Systemwide Performance Evaluation

Based upon the information provided above, a number of conclusions can be drawn concerning the effectiveness and efficiency of the transit system as a whole.

First, it may be concluded that local, express, and freeway flyer transit services are currently being provided to all areas of urban development within the County that have the potential to support transit service. Consequently, no new service should be considered for areas not presently served by the existing transit system. However, some changes may be warranted in the types of transit service being provided to the areas presently served by the transit system. One such change could be the provision of additional rapid transit freeway flyer bus service between downtown Milwaukee and the Goerke's Corners public transit station which serves portions of both the City of Waukesha and the City of Brookfield. This could be accomplished either by converting some of the express and local bus runs currently being operated over W. Blue Mound Road or W. Greenfield Avenue into rapid transit runs over IH 94 between Goerke's Corners and downtown Milwaukee, or by adding new scheduled bus runs between these two points.

A second change that should be considered is the provision of local rather than express bus service in the W. Blue Mound corridor. Based upon the systemwide performance evaluation, the provision of local bus service in the W. Blue Mound Road corridor was concluded to be appropriate only as an extension of the local bus service currently being provided within the City of Waukesha, primarily to enable City of Waukesha residents to have public transit access to the jobs and stores located along W. Blue Mound Road. The City of Waukesha and the portion of the City of Brookfield located along W. Blue Mound Road west of N. Moorland Road are the only parts of Waukesha County that constitute areas of contiguous high- and medium-density urban development, and that are therefore capable of supporting efficient local bus service. Therefore, local bus service between the W. Blue Mound corridor and other areas of the County is not

practical at this time. Also, bus service that would be primarily intended to provide local internal service within the corridor would not be practical at this time because of the pattern in which new development is occurring and the lack of pedestrian-oriented facilities.

Second, the transit system currently serves only those persons and job opportunities located within a relatively small portion of the County. However, the areas served are those areas within the County where the need for, or the potential support of, public transit service has been found to be the greatest. Since no areas in the County other than those presently served by the transit system have been found to warrant the establishment of new transit service, it may be concluded that the county transit system properly serves the population and job concentrations within the County. Similarly, the county transit system properly serves the major commercial and industrial centers within the County. Those major centers that are not served by the county transit system either are located within areas of the County where transit service has been proven to be impractical, or can be reached by passengers on the county transit services by transferring to the City of Waukesha bus system.

Third, it may be concluded that the transit system uses energy very efficiently in serving travel between Waukesha and Milwaukee Counties. In this respect, for each gallon of petroleum-based fuel consumed in its operation, the transit system is able to serve 2.5 times the passenger miles of travel that could be served using private automobiles. It may also be concluded that the transit system helps to reduce the need for additional and costly improvements to the freeway system within the Milwaukee urbanized area, particularly on the East-West Freeway between the Zoo Interchange and downtown Milwaukee, as it removes about 235 vehicles from peak hour-peak direction traffic--the equivalent of about 20 percent of the design capacity of a freeway lane.

ROUTE PERFORMANCE EVALUATION

A performance evaluation of the individual routes of the Waukesha County transit system was conducted against the standards and performance measures related to Objectives No. 2 and No. 4, as set forth in Chapter V of this report. Specific performance measures indicating the current level of ridership and financial performance of each bus route were used to identify individual bus routes exhibiting low performance levels. Further analyses of each route were then conducted to identify productive and nonproductive route segments based on passenger boarding and alighting activity for each route. Finally, each route was examined for compliance with the standards governing minimum average vehicle speeds as well as headway and passenger loading standards.

Ridership and Financial Performance

The performance characteristics of the bus routes composing the Waukesha County transit system are presented in Table 27 and shown in Figures 10 through 13. The data presented in these figures are based upon the operating characteristics and ridership for each route reported by the contract transit operators for the month of April 1987. Data for the month of April were used because travel during April is no longer affected by winter driving conditions, and is not affected by recreational trips as is travel made during school vacation periods. In addition, traffic count data collected throughout the year have

Table 27

**AVERAGE DAILY PERFORMANCE CHARACTERISTICS OF BUS ROUTES
OPERATED AS PART OF THE WAUKESHA COUNTY TRANSIT SYSTEM: APRIL 1987**

Performance Characteristic	Route 1: Waukesha to Milwaukee via Greenfield Avenue			Route 2: Waukesha to Milwaukee via Blue Mound Road			Route 3: Oconomowoc to Milwaukee via STH 16	Route 4: Oconomowoc to Milwaukee via IH 94
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday	Weekday	Weekday
Average Daily Passengers ^a	210	56	49	191	55	16	77	51
Total Daily Vehicle Hours.....	28.7	8.3	8.0	21.2	8.5	2.2	7.5	4.8
Total Daily Vehicle Miles.....	421.0	141.0	136.0	445.0	141.0	46.0	172.0	142.0
Total Daily Revenue Vehicle Hours.....	22.7	7.9	6.6	17.3	7.3	2.1	5.7	2.2
Total Daily Revenue Vehicle Miles.....	359.0	138.0	132.0	354.0	138.0	44.0	148.0	72.0
Passengers per Revenue Vehicle Hour.....	9.3	7.1	7.4	11.0	7.5	7.6	13.5	23.2
Total Daily Revenue ^b	\$278	\$74	\$65	\$279	\$80	\$24	\$149	\$92
Total Daily Operating Expenses ^c	\$876	\$293	\$283	\$926	\$293	\$96	\$358	\$295
Percent of Operating Expenses Recovered from Operating Revenue.....	32	25	23	30	27	25	42	31
Total Expense per Vehicle Hour.....	\$30.52	\$35.30	\$35.38	\$43.68	\$34.74	\$43.64	\$47.73	\$61.46
Total Expense per Vehicle Mile.....	\$2.08	\$2.08	\$2.08	\$2.08	\$2.08	\$2.08	\$2.08	\$2.08
Total Daily Operating Deficit.....	\$598	\$219	\$218	\$647	\$213	\$72	\$209	\$203
Total Operating Deficit per Passenger...	\$2.85	\$3.91	\$4.45	\$3.39	\$3.87	\$4.50	\$2.71	\$3.98
Local Share of Daily Operating Deficit ^d	\$26.28	\$8.79	\$8.49	\$27.78	\$8.79	\$2.88	\$10.74	\$8.85
Local Share of Operating Deficit per Passenger...	\$0.13	\$0.16	\$0.17	\$0.15	\$0.16	\$0.18	\$0.14	\$0.17

Performance Characteristic	Route 10: Brookfield Square Local Route Extension		Route 79: Menomonee Falls Freeway Flyer	Entire System		
	Weekday	Saturday	Weekday	Weekday	Saturday	Sunday
Average Daily Passengers ^a	227	170	210	966	281	65
Total Daily Vehicle Hours.....	11.6	8.7	11.0	84.8	25.5	10.2
Total Daily Vehicle Miles.....	109.2	83.4	276.3	1,565.5	365.4	182.0
Total Daily Revenue Vehicle Hours.....	11.6	8.7	7.2	66.7	23.9	8.7
Total Daily Revenue Vehicle Miles.....	109.2	83.4	181.0	1,223.2	359.4	176.0
Passengers per Revenue Vehicle Hour.....	19.6	19.5	29.2	14.5	11.8	7.5
Total Daily Revenue ^b	\$182	\$136	\$303	\$1,281	\$301	\$89
Total Daily Operating Expenses ^c	\$504	\$379	\$556	\$3,516	\$965	\$379
Percent of Operating Expenses Recovered from Operating Revenue.....	36	36	54	36	31	23
Total Expense per Vehicle Hour.....	\$43.45	\$43.45	\$50.64	\$41.45	\$37.84	\$37.16
Total Expense per Vehicle Mile.....	\$4.62	\$4.54	\$2.01	\$2.24	\$2.64	\$2.08
Total Daily Operating Deficit.....	\$322	\$243	\$253	\$2,235	\$664	\$290
Total Operating Deficit per Passenger...	\$1.42	\$1.43	\$1.20	\$2.31	\$2.36	\$4.46
Local Share of Daily Operating Deficit ^d	\$15.12	\$11.37	\$16.68	\$105.45	\$28.95	\$11.37
Local Share of Operating Deficit per Passenger...	\$0.07	\$0.07	\$0.08	\$0.11	\$0.10	\$0.17

^a Includes revenue and free passengers.

^b Does not include negligible freight revenue attributable to Routes No. 1, 2, and 3.

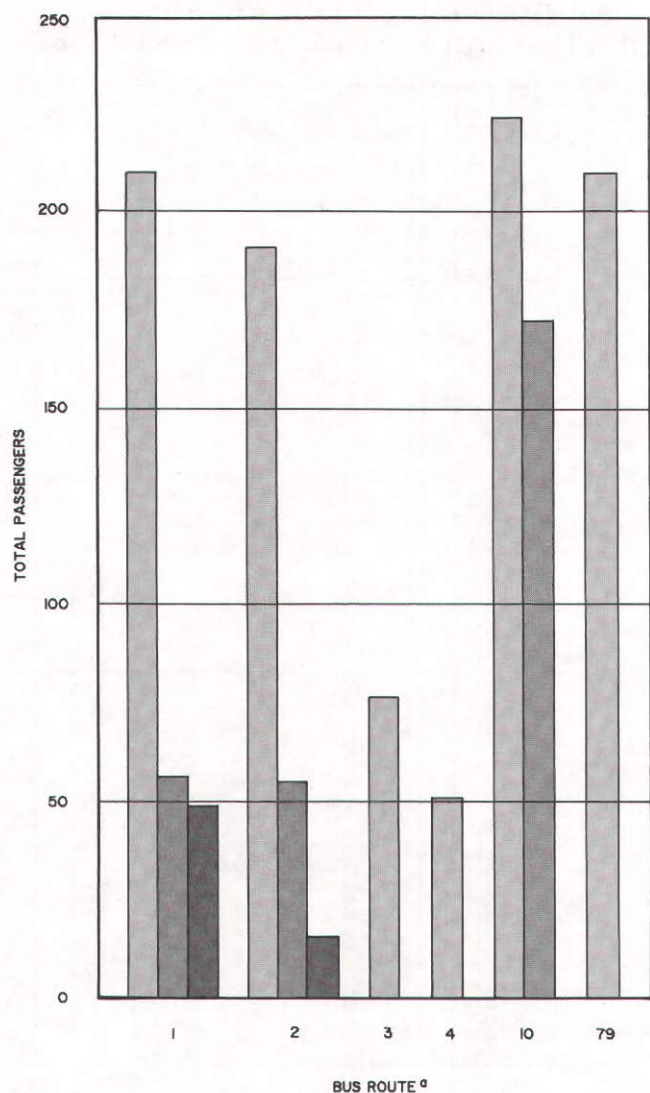
^c Includes capital depreciation for Routes No. 10 and 79.

^d Based on estimated 1987 distribution of the total annual transit system operating deficit among federal, state, and local funding sources.

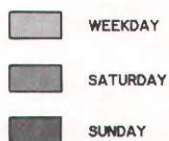
Source: Wisconsin Coach Lines, Inc., Waukesha County, and SEWRPC.

Figure 10

AVERAGE DAILY TOTAL PASSENGERS
BY ROUTE FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: APRIL 1987



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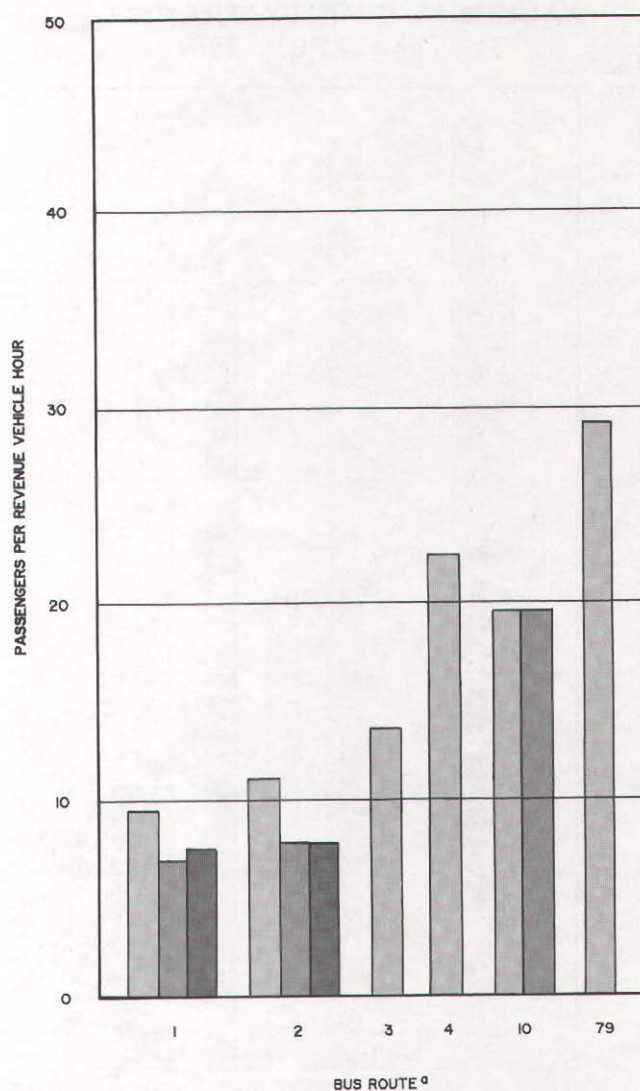


^aSEE TABLE 27

Source: SEWRPC.

Figure 11

AVERAGE DAILY PASSENGERS PER
REVENUE VEHICLE HOUR BY ROUTE
FOR THE WAUKESHA COUNTY
TRANSIT SYSTEM: APRIL 1987



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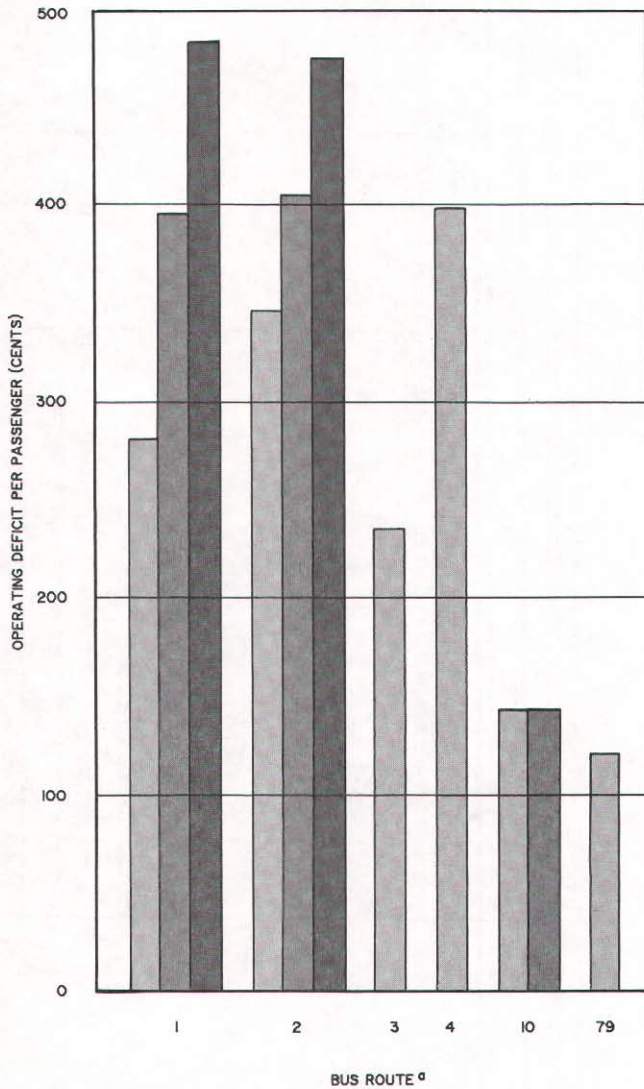


^aSEE TABLE 27

Source: SEWRPC.

Figure 12

**AVERAGE DAILY OPERATING DEFICIT
PER PASSENGER BY ROUTE FOR THE
WAUKESHA COUNTY TRANSIT
SYSTEM: APRIL 1987**



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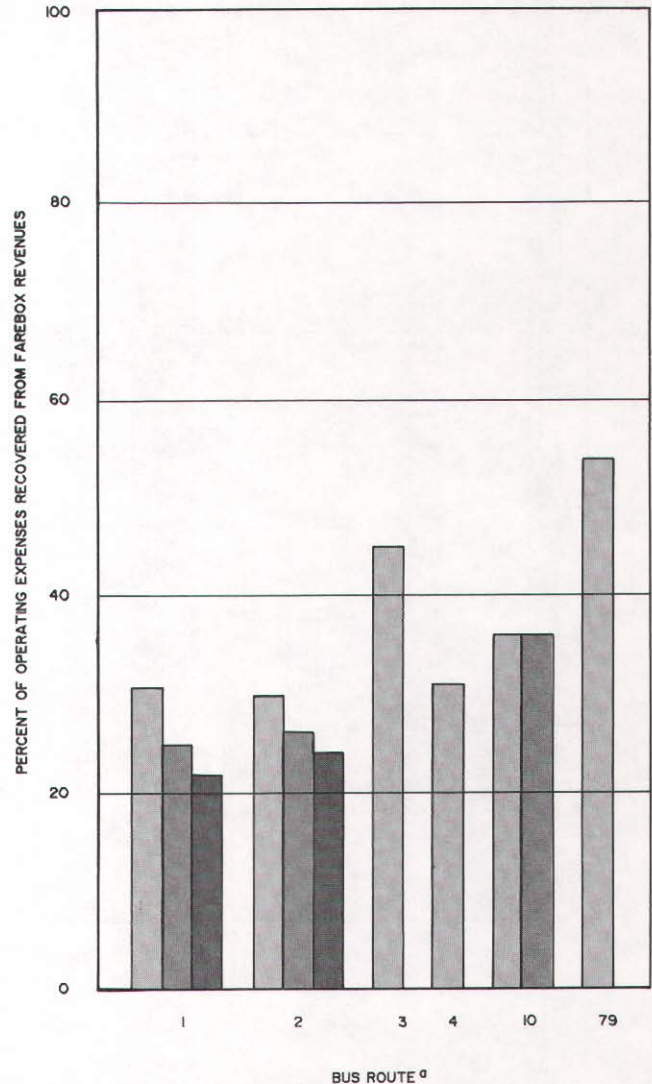


^aSEE TABLE 27

Source: SEWRPC.

Figure 13

**PERCENT OF OPERATING EXPENSES
RECOVERED FROM FAREBOX REVENUES
BY ROUTE FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: APRIL 1987**



LEGEND



^aSEE TABLE 27

Source: SEWRPC.

indicated that April is a month during which average daily travel is representative of average annual daily travel. The performance measures presented in the table and figures indicate the ridership, productivity, and financial performance of each route.

Measures of ridership and productivity examined for each bus route were total passengers--revenue passengers and free passengers--and total passengers per revenue vehicle. The financial performance measures examined operating deficit per passenger and percent of operating expenses recovered from farebox revenues. These performance measures, however, must be considered estimates as they are based on passenger counts for a single month, an average revenue per passenger, and an average cost per vehicle hour of service provided.¹ The ridership activity and financial performance of each bus route were compared with those of the other bus routes and with the respective averages for the entire system. The intent of this comparison was to identify those routes with performance levels significantly below systemwide averages. It is important that this comparative information not be misinterpreted or misused. In this respect, no single performance measure should be used to justify termination of a route that has a performance level below the systemwide average.

Standard No. 1 under Objective No. 2 states that transit system ridership should be maximized. The first performance measure examined, total passengers by route, is displayed in Figure 10. During the month of April 1987, an average of 966 passengers were carried each weekday by the six routes of the transit system. These routes are shown on Map 1 in Chapter II of this report. The average weekday ridership on four of the six routes accounted for about 838 passengers, or about 87 percent of the average weekday total. These routes are Route No. 1, Waukesha to Milwaukee via Greenfield Avenue; Route No. 2, Waukesha to Milwaukee via Blue Mound Road; Route No. 10, the Brookfield Square local route extension; and Route No. 79, the Menomonee Falls freeway flyer. The lowest absolute weekday ridership was observed on Routes No. 3 and No. 4 of the transit system, which provide express and rapid transit service between Oconomowoc

¹Estimates of average daily operating expenses per route were based upon an average daily operating expense per total vehicle mile or total vehicle hour as observed during the month of April 1987, and estimates of the average daily total vehicle miles or hours for each route. For Route Nos. 1, 2, 3, and 4 operated by Wisconsin Coach Lines, Inc., an average unit cost of \$2.08 per vehicle mile was used. For Route Nos. 10 and 79 operated as part of the Milwaukee County Transit System, average unit costs of \$43.45 and \$50.64 per vehicle hour, respectively, were used. Estimates of average daily passenger revenues per route were based upon the average revenue per total passenger and the total daily passengers per route as observed during the month of April 1987. Because passenger revenues for Routes No. 1, 2, and 3 are currently combined and reported as a single figure, passenger revenues for these routes were developed using passenger fare information collected as part of the origin-destination survey of bus passengers conducted by the Commission in October 1984. In this respect, an average revenue per passenger figure was developed for each of these routes using the 1984 survey data and then adjusting the data to account for the increases in passenger fares that occurred on these routes between October 1984 and April 1987.

and downtown Milwaukee over STH 16 and IH 94, respectively. These routes also have the lowest number of scheduled bus runs on an average weekday, with only one or two scheduled round trips operated over each route.

The average Saturday ridership on the transit system of 281 passengers is less than one-third the average weekday ridership. Only three of the six routes of the transit system operate on Saturdays, with Route No. 10 accounting for about 62 percent of the Saturday ridership. The number of scheduled bus trips provided over Route No. 10 on Saturday was also substantially higher than the number provided over Route No. 1 or Route No. 2.

The average Sunday ridership on the transit system of 65 passengers represents only about 7 percent of the average weekday ridership. About three-fourths of the average Sunday ridership is carried over Route No. 1, which also supplies three-fourths of the transit service available on Sundays.

Figure 11 indicates passengers per revenue vehicle hour for each bus route--an additional measure of route productivity which relates passengers carried to the actual volume of transit service provided. The higher values under this measure are an indicator of better vehicle utilization and economy in operation. An average of 12 to 15 passengers per revenue vehicle hour were observed on the transit system on weekdays and Saturdays during the month of April 1987. On an average weekday, two routes performed significantly above this average, with Route No. 79 exhibiting the best performance with about 29 passengers per revenue vehicle hour, followed by Route No. 4 with about 23 passengers per revenue vehicle hour. The lowest weekday performance was exhibited by Routes No. 1 and 2 which carried between eight and 11 passengers per revenue vehicle hour. A similar difference was observed in the productivity of the three routes operated on Saturdays, with Route No. 10 being the most productive Saturday route, carrying about 20 passengers per revenue vehicle hour, and Routes No. 1 and 2 carrying only seven to eight passengers per revenue vehicle hour.

The productivity of the service offered by the transit system on Sundays was significantly below that of the service offered on weekdays and Saturdays. The productivity of the two routes offering Sunday service was about 7.5 passengers per revenue vehicle hour, or about 36 to 48 percent below the systemwide levels observed on weekdays and Saturdays.

The first three standards under Objective No. 4 relate to the financial performance of the transit system. Measures of financial performance examined for each bus route were the percent of operating expenses recovered from farebox revenues and operating deficit per passenger. These measures are displayed for each bus route in Figures 12 and 13. Both measures provide a general indication of the extent to which the level of passenger revenue generated by each route meets expenses incurred in operating the route. Passenger revenue is a function of the number of passengers carried as well as the type of fare paid--full cash fare, commuter ticket, or half-fare for elderly/ handicapped persons and children--and the distance traveled. On an average weekday during April 1987, about 36 percent of operating expenses were recovered through farebox revenues systemwide, and the deficit per passenger was about \$2.31. Only two routes of the transit system had farebox recovery rates that were higher than the system average--Route No. 79, the Menomonee Falls freeway flyer, with a farebox recovery rate of 54 percent; and Route No. 3, the Oconomowoc-Milwaukee express service operating over STH 16, with a farebox recovery rate of 45

percent. Route No. 79 also had the lowest operating deficit per passenger, at \$1.20 per ride, followed by Route No. 10, the Brookfield Square local route extension, which had an operating deficit per passenger of \$1.42. The highest operating deficit per passenger of \$3.98 was found on Route No. 4, the Oconomowoc freeway flyer. This route currently recovers only 31 percent of its operating expenses from passenger revenues. It should be noted that the poor financial performance of this route can be attributed to the significant number of vehicle hours spent deadheading between the garage and the ends of the route. This represents time when the vehicle is not in revenue service, but for which expenses are incurred.

The transit service provided on Saturdays during April 1987 recovered about 31 percent of operating expenses from farebox revenues, and had an average operating deficit per passenger of about \$2.44. Of the three routes that operate on Saturday, Route No. 10 has the best financial performance, recovering about 36 percent of expenses from farebox revenues, and having a total operating deficit per passenger of about \$1.43. The financial performance of the Sunday service provided by the transit system drops off markedly from that of weekday transit service, as the two routes operating on Sunday recover only 22 percent of their expenses from passenger revenues, while incurring an average operating deficit per passenger of about \$4.82.

Route Segment Performance

The passenger boarding and debording activity along each bus route was examined to identify the productive and nonproductive route segments. Information on the number of boarding and debording passengers by bus route segment for each bus route was obtained from a combination of special passenger counts taken by Wisconsin Coach Lines, Inc., and Milwaukee County Transit System personnel during 1986, and special on-board passenger surveys undertaken by the Commission staff during 1984. To facilitate the analysis of passenger boarding and debording information, the bus routes were divided into route segments based upon the manner in which the passenger counts were taken by the bus operators. Most segments represent logical aggregations of several bus stops, although selected segments represent only one important bus stop or station. The portions of the routes that operate nonstop over significant distances on either freeways or highways were not included in any segments. Passenger boarding and debording activity was examined separately for weekdays, Saturdays, and Sundays on routes on which weekend service is provided.

Tables 28 and 29 show the total boarding and debording passenger information by route segment for the Waukesha County transit system bus routes operated by Wisconsin Coach Lines, Inc., and by the Milwaukee County Transit System, respectively. Map 19 identifies the segments for each of the six routes for which segment data were prepared.

For purposes of route segment analysis, an average weekday total of 1,840 boarding and debording passengers were recorded over the 23 separate route segments identified on the system. The five most productive route segments, so characterized by having the heaviest weekday boarding and debording passenger activity, account for approximately 1,310 passengers, or about 71 percent of the boarding and debording passengers on the 23 route segments. These five route segments are the downtown Milwaukee, Brookfield Square Shopping Center, Goerke's Corners transit station, downtown Waukesha transit station, and City

Table 28

**AVERAGE DAILY BOARDINGS AND DEBOARDINGS ON WAUKESHA COUNTY
TRANSIT SYSTEM ROUTES OPERATED BY WISCONSIN COACH LINES, INC.,
BY SEGMENTS AND SELECTED STATIONS OR STOPS: SEPTEMBER 1986**

Route No.	Route Segment, Station, or Stop	Route No. 1: Waukesha via Greenfield Avenue			Route No. 2: Waukesha via Blue Mound Road	Route No. 3: Oconomowoc via STH 16	Route No. 4: Oconomowoc via IH 94	Total for Four Routes
		Weekday	Saturday	Sunday	Weekday	Weekday	Weekday	Weekday Average
1	Downtown Milwaukee: Wells Street and Michigan Street from N. 7th Street to N. Cass Street Segment.....	144	79	35	142	99	57	442
2	N. 13th Street to N. 35th Street.....	21	3	4	8	3	--	32
3	West Allis: S. 70th Street to S. 116th Street.....	42	17	11	7	--	--	49
4	Brookfield East: 124th Street to and including Calhoun Road.....	37	2	1	26	1	--	64
5	Brookfield Square Shopping Center.....	54	42	14	9	11	--	74
6	Brookfield West: From Calhoun Road to W. Blue Mound Road and Barker Road and to STH 59 and Springdale Road.....	17	3	5	8	3	2	30
7	Goerke's Corners Park-Ride Station.....	--	--	--	44	54	40	138
8	City of Waukesha: STH 59 and Springdale Road, and Goerke's Corners to Downtown Waukesha.....	73	36	18	51	--	--	124
9	Downtown Waukesha Station.....	88	73	30	44	--	--	132
10	Waukesha County Airport: Goerke's Corners to CTH T.....	--	--	--	--	5	--	5
11	Pewaukee Segment: CTH T to CTH KE.....	--	--	--	--	10	--	10
12	IH 94 and CTH G Stop.....	--	--	--	--	--	2	2
13	Hartland Segment: CTH KE to STH 83.....	--	--	--	--	9	--	9
14	IH 94 and STH 83 Stop.....	--	--	--	--	--	5	5
15	Nashotah Park-Ride Station to Sawyer Road.....	--	--	--	--	6	--	6
16	Okauchee: Sawyer Road to Oconomowoc City Limits.....	--	--	--	--	1	--	1
17	Summit Corners Park-Ride Station.....	--	--	--	--	--	4	4
18	Olympia Village: Delafield Road to Oconomowoc City Limits.....	--	--	--	--	--	2	2
19	Oconomowoc: All Stops Within City Limits.....	--	--	--	--	7	2	9
Total		476	255	118	339	209	114	1,138

Source: Wisconsin Coach Lines, Inc., and SEWRPC.

of Waukesha segments. Moreover, the 10 most productive route segments accounted for about approximately 1,700 weekday boarding and deboarding passengers, or about 93 percent of the total boarding and deboarding activity on the 23 route segments. The sixth through tenth most productive route segments include the Pilgrim Road park-ride station, the Menomonee Falls segment, the Brookfield east segment, the West Allis segment, and Executive Drive Office Park. The magnitude of weekday passenger activity on the 10 most productive route segments underscores the principal passenger markets served by the Waukesha County transit system. These markets are: 1) regular weekday commuters who live in and around the City of Waukesha and who work in downtown Milwaukee; 2) regular weekday commuters from outlying communities in Waukesha County who leave their private automobiles at park-ride lots or bus stops and work in downtown Milwaukee; and 3) residents who live in and around the City of Waukesha area or in Milwaukee County who work, shop, or have other personal business in and around the Brookfield Square Shopping Center. A ranking of the 23 route segments is presented in Table 30.

Table 29

**AVERAGE DAILY BOARDINGS AND DEBOARDINGS ON WAUKESHA COUNTY
TRANSIT SYSTEM ROUTES OPERATED BY MILWAUKEE COUNTY
TRANSIT SYSTEM BY SEGMENTS AND SELECTED STATIONS OR STOPS**

Route No.	Route Segment, Station, or Stop	Route 10: Brookfield Square Local Route Extension ^a		Route 79: Menomonee Falls Flyer ^b
		Weekday ^c	Saturday ^d	Weekday
20	W. Underwood Parkway to N. Moorland Road.....	20	19	--
5	Brookfield Square Shopping Center: All Stops Within Shopping Center...	161	144	--
21	Brookfield Corporate Office Park: All Stops Within Office Park.....	36	3	--
22	Pilgrim Road Park-Ride Station.....	--	--	121
23	Menomonee Falls: Pilgrim Road and Main Street to W. Appleton Avenue and N. 124th Street.....	--	--	121
1	Downtown Milwaukee: Wisconsin Avenue from N. 11th Street to N. Cass Street.....	--	--	242
Total		217	166	484

^aData shown only for portion of route operating within Waukesha County.

^bBased on average survey data collected during October 1984.

^cBased on average monthly passenger counts for May 1986.

^dBased on average monthly passenger counts for October 1986.

Source: Milwaukee County Transit System and SEWRPC.

The 13 least productive route segments--so characterized by having the lightest boarding and deboarding passenger activity--were also identified. Although these 13 segments represent over 50 percent of the 23 route segments, they account for only 7 percent of the total boarding and deboarding passenger activity on the Waukesha County transit system. These 13 route segments are: N. 13th Street to N. 35th Street in the City of Milwaukee; Brookfield west; W. Underwood Parkway to N. Moorland Road; Pewaukee; Hartland; Oconomowoc; Nashotah; Waukesha County airport; the bus stop at IH 94 and STH 83; the Summit Corners park-ride station; Olympia Village; the bus stop at IH 94 and CTH G; and Okauchee. The first four of these route segments do have significant week-day passenger activity, ranging from 10 to 32 total boardings and deboardings per weekday. The remaining nine segments have fewer than 10 boardings and deboardings per weekday, and are generally located either where routes pass few if any major trip generators or where there is little or no residential development within walking distance of the bus route.

The nine route segments with the lightest passenger boarding and deboarding activity are all located on the two Oconomowoc bus routes west of the Goerke's Corners transit station. On these two routes--Route No. 3, Oconomowoc via STH

ROUTE SEGMENTS OF THE WAUKESHA COUNTY TRANSIT SYSTEM

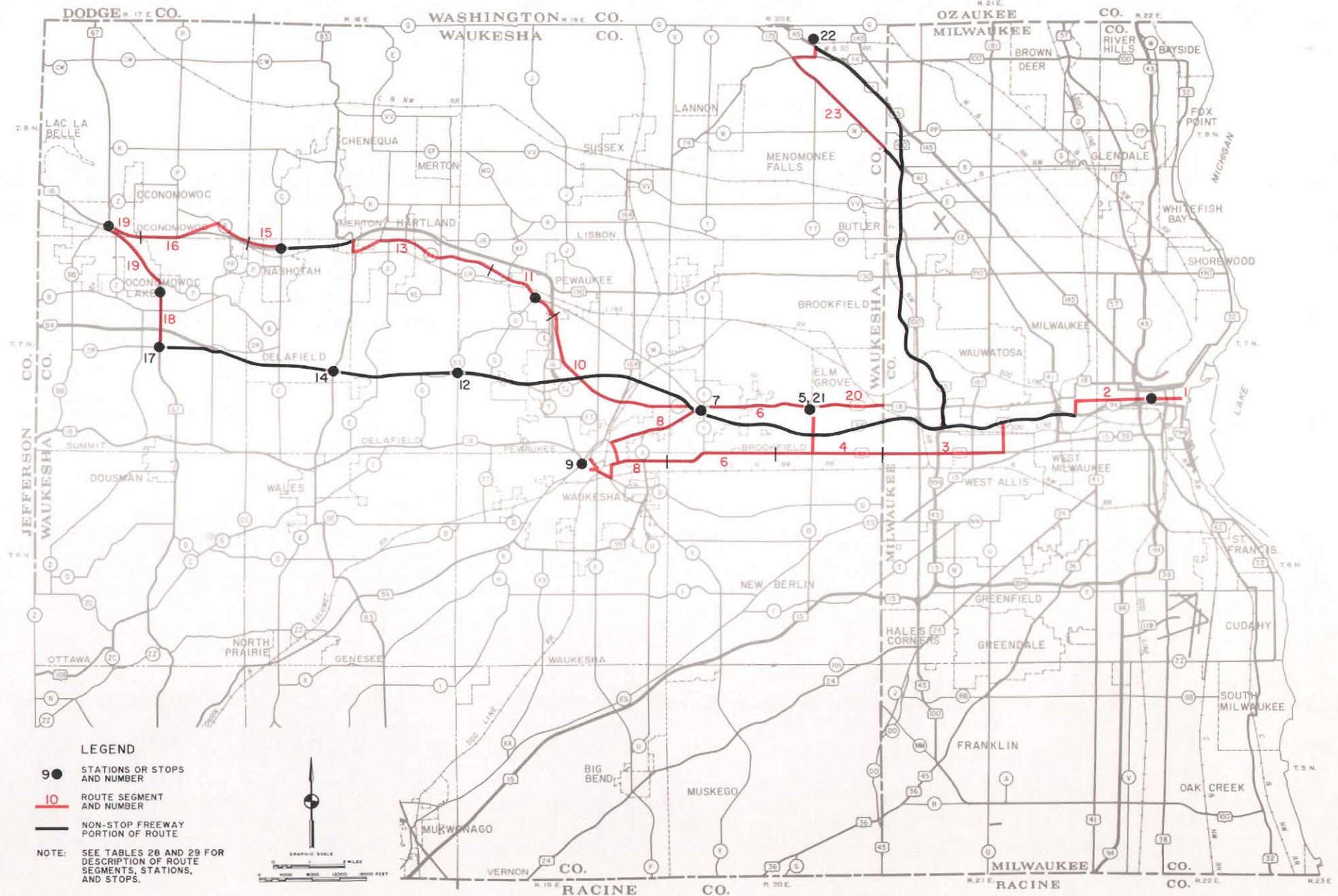


Table 30

RANKING OF WAUKESHA COUNTY TRANSIT SYSTEM ROUTE SEGMENTS BY AVERAGE TOTAL WEEKDAY BOARDINGS AND DEBOARDINGS: 1986

Rank	Route Segment Number	Route Segment, Station, or Stop	Average Number of Weekday Boardings and Deboardings
1	1	Downtown Milwaukee: Wells Street and Michigan Street from N. 7th Street to N. Cass Street.....	684
2	5	Brookfield Square Shopping Center.....	235
3	7	Goerke's Corners Park-Ride Station.....	138
4	9	Downtown Waukesha Station.....	132
5	8	City of Waukesha: STH 59 and Springdale Road, and Goerke's Corners to Downtown Waukesha.....	124
6	22	Pilgrim Road Park-Ride Station.....	121
6	23	Menomonee Falls: Pilgrim Road and Main Street to W. Appleton Avenue and N. 124th Street.....	121
8	4	Brookfield East: 124th Street to and including Calhoun Road.....	64
9	3	West Allis: S. 70th Street to S. 116th Street.....	49
10	21	Brookfield Corporate Office Park: All Stops Within Office Park.....	36
11	2	N. 13th Street to N. 35th Street.....	32
12	6	Brookfield West: From Calhoun Road to W. Blue Mound Road and Barker Road and to STH 59 and Springdale Road.....	30
13	20	W. Underwood Parkway to N. Moorland Road.....	20
14	11	Pewaukee Segment: CTH T to to CTH KE.....	10
15	13	Hartland Segment: CTH KE to STH 83.....	9
15	19	Oconomowoc: All Stops Within City Limits.....	9
17	15	Nashotah Park-Ride Station to Sawyer Road.....	6
18	10	Waukesha County Airport: Goerke's Corners to CTH T.....	5
18	14	IH 94 and STH 83 Stop.....	5
20	17	Summit Corners Park-Ride Station.....	4
21	12	IH 94 and CTH G Stop.....	2
21	18	Olympia Village: Delafield Road to Oconomowoc City Limits.....	2
23	16	Okauchee: Sawyer Road to Oconomowoc City Limits.....	1

Source: SEWRPC.

16; and Route No. 4, Oconomowoc via IH 94--only a small proportion of the total passenger activity occurs west of the Goerke's Corners transit station. Of the combined total of 323 weekday boardings and deboardings on these two routes, 53, or about 16 percent, occur west of Goerke's Corners.

Of the 23 route segments of the Waukesha County transit system, nine segments are actually single station stops or major traffic generator points. Each of the remaining 14 route segments is long enough to include several distinct bus stops in each direction. A review of the detailed boarding and deboarding passenger information compiled from the Commission's on-board bus surveys reveals that on some of these segments, most or all deboarding activity occurs at only one or two important stops. For example, within the West Allis route segment, most boarding and deboarding activity occurs at the S. 70th Street and W.

Greenfield Avenue bus stop, and at the S. 108th Street and W. Greenfield Avenue bus stop. Within the N. 13th Street to N. 35th Street route segment, most boarding and deboarding activity occurs at the N. 16th Street and W. Clybourn Street bus stop. Also, within the Hartland, Nashotah, Okauchee, and Oconomowoc route segments, most passenger activity occurs at a bus stop located in the center of each community. On other route segments, passenger boardings and deboardings are dispersed along the segment. These route segments include downtown Milwaukee, Brookfield east, the City of Waukesha, Pewaukee, and Menomonee Falls. Those route segments where passenger activity is concentrated at only one or two stops could be considered for service modifications to effect faster or more efficient operation.

During 1986, weekend service was provided on two routes: Route No. 1, Waukesha via W. Greenfield Avenue (STH 59); and Route No. 10, Brookfield Square local route extension. Because most weekday passenger trips on Route No. 1 are work-related in nature, Saturday and Sunday activity on this route is substantially lower than weekday activity. Although the average boardings and deboardings on Route No. 1 for Saturday and Sunday were about 54 percent and 25 percent of the average weekday boardings and deboardings, respectively, the relative distribution of passenger activity among the route segments and stations was similar; that is, most passenger activity occurred at downtown Milwaukee, at the Brookfield Square Shopping Center, or in the City of Waukesha. However, on Route No. 10, total average boardings and deboardings for Saturday were about 76 percent of the average weekday activity, largely because most trips on this route are for shopping or other personal purposes.

Average Route Speeds

Scheduled operating speed is an indicator of efficiency in operation. Scheduled operating speed can also provide a general indication of labor and vehicle productivity by providing a measure of the level of service that is being provided within a certain amount of time--in this case, the amount of revenue vehicle miles operated for each revenue vehicle hour of service provided. As set forth in Standard No. 3 under Objective No. 2, it is desirable to attain at least the following minimum average travel speeds in the provision of public transit service: 10 miles per hour for a local transit service--that is, Route No. 1, Waukesha via STH 59, and Route No. 10, Brookfield Square local route extension; 20 miles per hour for express transit service--that is, Route No. 2, Waukesha via STH 18, and Route No. 3, Oconomowoc via STH 16; and 30 miles per hour for rapid transit service--that is, Route No. 4, Oconomowoc via IH 94, and Route No. 79, Menomonee Falls freeway flyer. In addition, the average scheduled operating speed can be an important indicator of how passengers will perceive the level of transit service of any particular route.

The average scheduled operating speed for each route operated as part of the Waukesha County transit system is listed in Table 31. As shown in the table, all six of the routes perform well in meeting the minimum desirable average travel speeds as set forth in the transit service standards for this study. The scheduled operating speeds are relatively high on these routes because many route segments have low passenger boarding and deboarding activity or few bus stops, thus allowing many buses to stop less often and to operate at speeds approaching the posted vehicle speed limit.

Table 31

**AVERAGE SCHEDULED SPEED FOR ROUTES OF THE
WAUKESHA COUNTY TRANSIT SYSTEM: WEEKDAYS 1986**

Bus Route		Number of Weekday Runs	Average Scheduled Speed (miles per hour)				
			By Run		By Route		Total
			Peak	Nonpeak	Peak	Nonpeak	
1	Waukesha to Milwaukee via Greenfield Avenue..... ● With Brookfield Square Stop..... ● Without Brookfield Square Stop.....	-- 12 5	-- 23.8 24.0	-- 23.8 --	23.9 -- --	23.8 -- --	23.9 -- --
2	Waukesha to Milwaukee via Blue Mound Road..... ● Direct..... ● With Goerke's Corners Stop..... ● With Goerke's Corners and Brookfield Square Stops via IH 94... ● With Goerke's Corners and Brookfield Square Stops via Greenfield Avenue..... ● Waukesha to Brookfield Square..... ● With Brookfield Square and Corporate Drive Stops via IH 94.....	-- 2 1 4 6 6 1	-- 30.5 29.7 25.6 23.7 -- 44.1	-- -- -- -- 22.4 21.9 --	28.5 -- -- -- -- -- --	22.1 -- -- -- -- -- --	25.3 -- -- -- -- -- --
3	Oconomowoc to Milwaukee via STH 16..... ● With Goerke's Corners Stop..... ● With Goerke's Corners and Brookfield Square Stops.....	-- 1 3	-- 32.0 29.9	-- -- --	30.4 -- --	-- -- --	30.4 -- --
4	Oconomowoc to Milwaukee via IH 94.....	2	39.9	--	39.9	--	39.9
5	Route 10: Brookfield Square Local Route Extension.....	42	15.7	14.7	15.7	14.7	15.1
6	Route 79: Menomonee Falls Freeway Flyer..... ● Eastbound..... ● Westbound.....	-- 4 4	-- 27.5 35.3	-- -- --	31.4 -- --	-- -- --	31.4 -- --

Source: SEWRPC.

Compliance with Headway and Passenger Boarding Standards

Standards No. 2 and 4 under Objective No. 2 pertain to the frequency of service provided and the peak passenger loads carried on the routes of the transit system. Basically, these two standards require that the service frequency, or operating headways, on each bus route provide for adequate vehicle capacity to meet both existing and projected travel demand. Adequate vehicle capacity is defined for this purpose by passenger loading standards which relate maximum passenger demand for service to the amount of service provided during specific time periods. The indicator most commonly used to measure compliance with passenger loading standards is the maximum load factor, which is defined as the ratio of passengers to bus seats available. This factor serves also to measure the quality of bus service, as it provides an indication of the number of passengers who must stand on a bus on a given route. The standards currently specify maximum load factors during peak periods of 1.00 for rapid and express transit service and 1.33 for local bus service. During off-peak periods, a maximum load factor of 1.00 has been specified.

One way of identifying whether or not headways or passenger loading standards are being achieved is to review the average daily passenger volumes by scheduled bus run for each bus route. Such information for the routes of the Waukesha County transit system is presented in Table 32. This information, when

Table 32

**AVERAGE DAILY PASSENGERS ON WAUKESHA COUNTY
TRANSIT SYSTEM ROUTES BY BUS RUN: APRIL 1987**

Bus Route	Weekday				Saturday				Sunday			
	Eastbound		Westbound		Eastbound		Westbound		Eastbound		Westbound	
	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers
1--Waukesha to Milwaukee via Greenfield Avenue	5:35 a.m. 6:35 6:55 7:25 9:00 11:30 1:00 p.m. 3:10 5:15 7:30	6 18 14 19 14 10 9 7 10 5	8:50 a.m. 10:30 1:00 p.m. 3:20 4:10 4:29 5:04 9:10 -- --	6 1 16 13 20 24 13 7 -- --	8:00 a.m. 11:15 7:10 p.m. -- -- -- -- -- -- --	6 16 7 -- -- -- -- -- -- --	10:15 a.m. 2:45 p.m. 9:10 -- -- -- -- -- -- --	6 12 9 -- -- -- -- -- -- --	11:00 a.m. 4:10 p.m. 7:30 -- -- -- -- -- -- --	14 5 3 -- -- -- -- -- -- --	12:10 p.m. 2:10 9:10 -- -- -- -- -- -- --	6 8 13 -- -- -- -- -- -- --
Total	--	112	--	100	--	29	--	27	--	22	--	27
2--Waukesha to Milwaukee via Blue Mound Road	6:50 a.m. 7:05 7:50 10:00 11:00 12:15 p.m. 2:10 3:40 4:00 --	27 17 19 6 3 1 5 5 9 --	6:35 a.m. 7:40 7:55 10:15 11:45 12:45 p.m. 2:15 4:28 4:55 6:15	14 1 7 5 2 2 12 13 35 8	9:00 a.m. 1:40 p.m. 4:00 -- -- -- -- -- -- --	10 11 9 -- -- -- -- -- -- --	9:15 a.m. 12:30 p.m. 5:10 -- -- -- -- -- -- --	5 12 10 -- -- -- -- -- -- --	1:10 p.m. -- -- -- -- -- -- -- -- -- --	5 -- -- -- -- -- -- -- -- --	5:15 p.m. -- -- -- -- -- -- -- -- -- --	12 -- -- -- -- -- -- -- -- --
Total	--	92	--	99	--	30	--	27	--	5	--	12
3--Oconomowoc to Milwaukee via STH 16	6:10 a.m. 6:55	27 19	4:30 p.m. 5:05	21 11	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Total	--	46	--	32	--	--	--	--	--	--	--	--
4--Oconomowoc to Milwaukee via IH 94	6:45 a.m.	25	4:45 p.m.	27	--	--	--	--	--	--	--	--
Total	--	25	--	27	--	--	--	--	--	--	--	--

Table 32 (continued)

Bus Route	Weekday				Saturday				Sunday			
	Eastbound		Westbound		Eastbound		Westbound		Eastbound		Westbound	
	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers	Scheduled Departure Time	Number of Passengers
10--Brookfield Square Local Route Extension ^a	7:40 a.m.	3	7:26 a.m.	24	8:50 a.m.	1	8:40 a.m.	7	--	--	--	--
	8:00	2	7:44	8	9:27	1	9:01	6	--	--	--	--
	8:35	2	8:20	11	10:04	2	9:48	13	--	--	--	--
	9:06	1	8:51	7	10:42	2	10:28	9	--	--	--	--
	9:38	0	9:22	6	11:18	2	11:05	7	--	--	--	--
	10:06	1	9:53	5	11:50	3	11:25	7	--	--	--	--
	10:39	1	10:25	6	12:22 p.m.	5	12:03 p.m.	15	--	--	--	--
	11:11	2	11:00	6	12:54	6	12:41	9	--	--	--	--
	11:43	4	11:32	8	1:26	5	1:13	8	--	--	--	--
	12:16 p.m.	4	12:05 p.m.	5	1:58	8	1:45	5	--	--	--	--
	12:48	3	12:37	5	2:29	2	2:17	4	--	--	--	--
	1:20	3	1:09	4	3:01	9	2:49	3	--	--	--	--
	1:55	7	1:42	6	3:32	13	3:20	4	--	--	--	--
	2:29	6	2:16	4	4:03	4	3:52	6	--	--	--	--
	3:04	7	2:52	8	4:40	4	4:23	5	--	--	--	--
	3:35	8	3:23	6	5:09	8	4:54	1	--	--	--	--
	4:03	9	3:51	18	--	--	--	--	--	--	--	--
	4:34	12	4:23	5	--	--	--	--	--	--	--	--
	5:01	6	4:50	6	--	--	--	--	--	--	--	--
	5:29	3	5:13	3	--	--	--	--	--	--	--	--
	5:56	5	5:37	3	--	--	--	--	--	--	--	--
Total	--	89	--	154	--	75	--	109	--	--	--	--
79--Menomonee Falls Freeway Flyer ^a	6:13 a.m.	14	6:50 a.m.	0	--	--	--	--	--	--	--	--
	6:51	27	4:14 p.m.	34	--	--	--	--	--	--	--	--
	7:05	36	4:28	23	--	--	--	--	--	--	--	--
	7:42	32	4:39	17	--	--	--	--	--	--	--	--
	--	--	5:12	34	--	--	--	--	--	--	--	--
Total	--	109	--	108	--	--	--	--	--	--	--	--

^aPassenger count information for this route is based on sample passenger counts taken during the months of January, February, and March 1987.

Source: Wisconsin Coach Lines, Inc., Milwaukee County Transit System, and SEWRPC.

compared with the average seating capacity of the buses, can be used to identify those bus runs which have the potential to have load factors exceeding those prescribed in the standards. The average seating capacity of the vehicles used by Wisconsin Coach Lines, Inc., to provide service over Routes No. 1 through 4 ranges from 43 to 49 passengers. The average seating capacity of the vehicles used by the Milwaukee County Transit System to provide service over the extension of local Route No. 10 to Brookfield Square and over Route No. 79--the Menomonee Falls freeway flyer--ranges from 44 to 53. A comparison of the ridership information presented in Table 31 with the average seating capacities indicates that none of the bus runs on the current routes carry a volume of passengers during any time period that exceeds the seating capacity of the vehicles used to provide the service. Consequently, all routes are operating with load factors of less than 1.00 at all times. It may therefore be assumed that the headways on the current routes are adequate to handle existing passenger demand.

Conclusions of Route Performance Evaluation

From the preceding evaluation of the Waukesha County transit system, it is apparent that the routes that have succeeded in attracting the most passengers while performing at average or better than average levels of productivity and cost-effectiveness are Routes No. 10--the Brookfield Square local route extension--and Route No. 79--the Menomonee Falls freeway flyer. Of the six routes in the system, only Route No. 79 performed above average under all evaluation measures. Route No. 1--Waukesha to Milwaukee via Greenfield Avenue--and Route No. 2--Waukesha to Milwaukee via Blue Mound Road--like Routes No. 10 and 79, attract high levels of ridership. However, the overall productivity and cost-effectiveness levels of Routes No. 1 and 2 are substantially below the system-wide average, because these routes operate with low passenger loads during off-peak periods on weekdays and on weekends. Route No. 3--Oconomowoc to Milwaukee via STH 16--and Route No. 4--Oconomowoc to Milwaukee via IH 94--both attract low levels of ridership, although Route No. 4 has an above average level of productivity. Route No. 3's performance is below average in productivity, but average or above average in cost-effectiveness.

The route segment analysis identified those components of the Waukesha County transit system with the highest and lowest passenger boarding and deboarding activity. This information should be viewed as an indicator of where service modifications or improvements may be warranted in the current route structure. This is particularly true for Route No. 3--Oconomowoc to Milwaukee via STH 16--and Route No. 4--Oconomowoc to Milwaukee via IH 94--which are made up of a large number of segments with very little passenger activity. Based on the low ridership levels observed on these route segments, it is questionable whether the current level of service provided between Oconomowoc and the Goerke's Corners public transit station can be justified. It should be noted that route and service changes to eliminate nonproductive segments may need to be made only during certain periods of the day.

SUMMARY

This chapter has evaluated the performance of the Waukesha County transit system. The performance evaluation was conducted at two levels, using specific sets of performance measures set forth to measure the attainment of key transit system objectives and standards.

At the first level, an assessment of performance was made on a systemwide basis. This assessment examined the extent to which the transit system serves the population and major land uses of Waukesha County. The second part of this assessment evaluated the performance of each route in the transit system based upon its ridership, productivity, and financial performance. Further analysis of each route was then conducted to identify productive and nonproductive route segments. The following conclusions may be drawn from the performance evaluation:

- The Waukesha County transit system provides local, express, and freeway flyer transit service to all concentrations of urban development within the County having the potential to support such service. Consequently, no new service should be considered at this time in areas not presently served by the transit system.
- Some changes may be warranted in the types of transit service being provided. For example, additional rapid transit, freeway flyer bus service could be provided between downtown Milwaukee and the Goerke's Corners public transit station, which serves portions of both the City of Waukesha and the City of Brookfield. Another change which could be considered is the provision of local bus service in the W. Blue Mound Road corridor to connect this area with the City of Waukesha.
- The existing transit system may be considered to be adequately serving the population, job, and major commercial and industrial concentrations in the County where the need for public transit service has been found to be the greatest. Those concentrations of population, jobs, and major commercial and industrial centers not presently served are generally located in areas of the County that do not warrant transit service, or located in areas where transit service has been proven to be infeasible or which could be reached on the county transit services by transferring to the City of Waukesha local bus system.
- The Waukesha County transit system may be concluded to be energy-efficient, serving 2.5 times the passenger miles of travel than can be served using private automobiles for each gallon of petroleum-based fuel used. On an average weekday, this results in a savings of about 466 gallons of motor fuel. In addition, the transit system helps to reduce the need for additional costly freeway improvements within the Milwaukee urbanized area, particularly on the East-West Freeway (IH 94) corridor between the Zoo (USH 45) Interchange and downtown Milwaukee, as it removes about 235 vehicles from peak hour-peak direction traffic--the equivalent of about 20 percent of the design capacity of a freeway lane.
- Route No. 10--Brookfield Square local route extension--and Route No. 79--Menomonee Falls freeway flyer--were found to be successful in attracting high levels of ridership and performing at average or better than average levels of productivity and cost-effectiveness compared to the remainder of the Waukesha County transit system.
- Route No. 1--Waukesha to Milwaukee via Greenfield Avenue (STH 59)--and Route No. 2--Waukesha to Milwaukee via Blue Mound Road (STH 18)--were found to attract high levels of ridership during weekday peak periods, but on an overall basis were found to have lower than average productivity and financial performance compared to the remainder of the Waukesha

sha County transit system because these two routes also operate during midday and evening off-peak periods and on weekends, with low passenger loads.

- Route No. 3--Oconomowoc to Milwaukee via STH 16--and Route No. 4--Oconomowoc to Milwaukee via IH 94--were both found to attract low levels of ridership over much of their routes. While Route No. 3 performed well in some measures of financial performance, Route No. 4 performed at or below average in all performance measures.
- On weekends, the Waukesha County transit system generally performs below the weekday level in terms of ridership, productivity, and financial performance, with the exception of Route No. 10, which performs relatively well on Saturdays. The ridership, productivity, and financial performance of the Sunday service provided by the transit system drops off markedly from that of weekday transit service and even Saturday service.
- The route segment analysis identified specific components of the Waukesha County transit system with high and low passenger activity. In particular, Routes No. 3 and 4--which provide weekday peak-period service to Oconomowoc--are made up of a large number of route segments west of the Goerke's Corners public transit station with very little passenger activity.

The analyses documented in this chapter indicate that two of the bus routes operated as part of the Waukesha County transit system--Route No. 10, the Brookfield Square local route extension, and Route No. 79, the Menomonee Falls freeway flyer--perform well, and at this time can continue to be operated with no route or schedule changes. However, for the remaining four routes, some service modifications should be considered to improve the ridership, performance, and cost-effectiveness of the total system. The systemwide and route performance evaluations presented in this chapter were intended to provide a sound basis for the consideration of such changes. The development and consideration of service changes to the public transit program for the five-year period from 1988 through 1992 is intended to enable Waukesha County to continue to provide an efficient public transit system serving the appropriate passenger markets at the lowest possible cost. Alternatives and recommended changes to the system are described in Chapter VII of this report.

Chapter VII

ALTERNATIVE AND RECOMMENDED TRANSIT SERVICE CHANGES

INTRODUCTION

Previous chapters of this report have described the land use and travel patterns of Waukesha County, and analyzed the effectiveness with which the existing public transit system serves those patterns. In addition, the ridership levels and financial performance of the transit system have been documented. All of this information is intended to be used in the development and evaluation of alternative transit service modifications and improvements for the routes composing the Waukesha County transit system. The evaluation of the alternatives developed is intended to identify those alternatives that are operationally and economically feasible, as well as politically acceptable. From among such alternatives, a recommended plan can be selected which will clearly identify the changes recommended to be made and the financial resources required to operate the changed system. This chapter describes the alternative transit service options considered and describes those ultimately chosen by the Advisory Committee for adoption and implementation. Two sets of alternative service options are described herein, with the first set proposing changes in service and fares for the 1988 transit system operating budget, and the second set proposing changes for the period 1989-1992. Implementation of the proposed changes to the transit system should improve the financial performance of the transit system without significantly affecting the level of service provided to the majority of users.

ALTERNATIVE TRANSIT SERVICE AND FARE CHANGES FOR 1988

The preceding chapter of this report presented an evaluation of the operation of, and the service provided by, each of the routes of the Waukesha County transit system. The results of this route-by-route performance evaluation indicated that operational changes to some of the routes could enhance the services provided by the system, as well as improve the overall financial performance of the transit system. Accordingly, the focus of the alternative transit service options presented in this section is on individual routes or pairs of routes currently operated by the transit system. Also influencing the type of alternative transit service options considered for 1988 were the constraints placed upon the transit system operating budget. In this respect, the Waukesha County Board of Supervisors directed that the 1988 budget for the provision of public transit service require no more than a 2 percent increase over the local tax levy required in 1987 for such service. During 1987, the operating budget for the Waukesha County transit system called for a local tax levy of approximately \$40,400. To comply with the County Board's 1988 budget directive, the Waukesha County Highway and Transportation Committee was required to hold the local tax levy for the transit system during 1988 to

approximately \$41,200. In addition, members of the Highway and Transportation Committee indicated that, to the extent practicable, it would be desirable to reduce the local tax levy for the county transit system. In this respect, it was noted that the county transit system required no local tax levy funds from 1982 through 1984.

The expansion of the transit system during 1988 to provide new service to areas not presently served was therefore not considered a practicable alternative. Review of the existing land use pattern in the County, and of the socioeconomic characteristics and travel patterns of the county residents as presented earlier in this report, indicated that no expansion of service was warranted under current conditions.

In order to measure the impacts of the various alternative service options considered for the 1988 operating budget, projections for 1988 were prepared for a baseline, or "status quo," alternative under which no changes were assumed to be made during 1988 in the routes operated or service provided by the county transit system in 1987. Two sets of projections for calendar year 1988 for this status quo alternative are presented in Table 33. This table includes projections of transit ridership, operating revenues, operating expenses, the level of funds available from state and federal transit assistance programs to help support the operating deficit of the transit system, and the level of local funds which would be required based upon the level of state and federal funds received. Similar information is also presented within the table for calendar year 1986 based upon the actual information reported by Waukesha County; and for calendar year 1987 as estimated based upon a comparison of the information reported by the transit system for the first five months of 1986 and 1987.

The first set of projections for the status quo alternative represents the preliminary operating budget for the transit system for calendar year 1988 as developed by Waukesha County staff. The preliminary budget figures assume a slight increase during 1988 in operating expenses. The operating deficit for the transit system under this projection would increase slightly in 1988--to about \$656,500, in comparison to the 1987 deficit of about \$644,000. The county share of the total deficit would be approximately \$73,500 in 1988.

The second set of projections for the status quo alternative was prepared by the Commission staff based on an examination of past trends in ridership, revenues, and expenses for each route in the transit system, and the amount of nonlocal transit assistance funds which may be expected to be available to Waukesha County in 1988. This set of figures assumed increases in the operating expenses for transit system routes ranging from 3 to 5 percent, and declines in the operating revenue for the transit system due to continuing declines in transit ridership and no changes in transit fares. Declines in ridership were expected on five of the six routes, and would range from 6 to 10 percent. Only on Route No. 10--the Brookfield Square local route extension--is ridership projected to remain stable during calendar year 1988. As a result of the projected increases in operating expenses and declines in operating revenues, the operating deficit for the transit system was projected to increase to about \$701,000 in 1988, with the county share of the deficit projected to increase to approximately \$120,000. Both sets of projections

Table 33

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER STATUS QUO ALTERNATIVE: 1988 PROJECTED

Operating Characteristic	1986 Actual	1987 Estimated ^a	1988 Projected	
			Preliminary Transit System Budget as Prepared by County Staff	Estimates Prepared by Commission Staff Assuming Continuation of Past Trends
Annual Revenue Passengers	282,065	254,600	266,000	242,000
Total Annual Vehicle Miles	438,690	429,960	431,708	431,708
Operating Expenses Annual	\$972,135	\$979,000	\$1,008,000	\$1,017,000
Per Revenue Passenger	3.45	3.85	3.79	4.20
Operating Revenue Per Passenger	\$1.27	\$1.31	\$1.32	\$1.31
Annual Passenger Revenue	\$359,284	\$333,400	\$ 350,000	\$ 314,200
Other Revenue	464	1,500	1,500	1,500
Total Revenue	\$359,748	\$334,900	\$ 351,500	\$ 315,700
Percent of Expenses Recovered Through Operating Revenues	37.0	34.2	34.9	31.0
Operating Deficit Federal Share	\$199,479	\$226,900	\$ 205,000	\$ 200,000
State Share	364,551	367,100	378,000	381,400
Local Share	48,357	50,100	73,500	119,900
Total	\$612,387	\$644,100	\$ 656,500	\$ 701,300
Per Revenue Passenger	\$2.17	\$2.53	\$2.47	\$2.90

^aBased on statistics for January-May 1987

Source: Waukesha County Highway Department and SEWRPC.

assumed a reduction in the total amount of federal aid available for operating assistance in Waukesha County--from about \$453,800 in 1987 to about \$400,000 in 1988--as unused funds available from previous years' allocations are exhausted and only the annual allocation of approximately \$400,000 is available. Whereas the County's preliminary budget assumed a slight increase in the County's share of these federal funds, the Commission's projections assumed that Waukesha County and the City of Waukesha would continue to divide these funds equally, as has been done in the past. Both sets of projections assumed that state urban mass transit operating assistance funds would be available to cover 37.5 percent of the transit system's operating expenses.

Under both sets of projections for the status quo alternative, the county tax levy for the transit system would exceed the limits set by the Waukesha County Board for calendar year 1988. Consequently, in order to reach the desired county subsidy level of approximately \$41,200 for 1988, alternative service options which proposed changes to the transit program to reduce the county tax levy by \$9,000 to \$79,000 were prepared. If the goal of some members of the Waukesha County Highway and Transportation Committee was to be attained, then the changes proposed would have needed to totally eliminate the county subsidy for the transit system--projected to be between \$74,000 and \$120,000. Because of the need to reduce the local funding for the transit system, and the magnitude of the potential local funding reductions, the alternative transit service options considered consisted of cutbacks in the services provided during 1987 on routes with low ridership and poor financial performance in order to reduce system operating expenses, combined with increases in passenger fares in order to increase system revenues.

It should be noted that the projections for the status quo alternative and the other alternative transit service options considered for the 1988 transit system budget assumed no changes in the procedures currently followed by the County in preparing the annual transit system operating budget and the applications for federal and state transit system assistance, or in procuring transit services. Some changes in the county transit program in these areas would result in additional federal and state transit assistance funds being available to Waukesha County which could be used to reduce the county funding level for 1988.

One such change would be for the County to include in its application for state transit operating assistance expenses that are currently incurred by the transit program, but that are not included in the transit system operating budget. These expenses would include those incurred by the staff of the Waukesha County Highway Department in performing various transit program work activities, including the preparation of grants for federal and state transit assistance, the preparation of the reports and supplemental documentation necessary to obtain federal transit assistance, and the actions required to monitor the operation of the transit services provided by the contract transit operators. To implement this change, the County would need to estimate the amount of time spent by Highway Department staff on transit-related work activities and, based upon this information, prorate the staff salaries to provide an estimate of county expenses. As this is currently not being done, estimates of the amount of state aids this action would generate cannot be made at this time. Whatever amount of state aid would be generated could be directly applied to enhance the transit services provided, or to reduce the County's tax levy for the transit system.

In addition to expenses for county staff, the County could also include in its operating budget and in its state transit operating assistance application the expenses incurred in providing specialized transportation assistance for handicapped persons. Such service must be provided by the County to meet federal requirements. It is routine practice for other urban transit operators in the Southeastern Wisconsin Region to include the net cost--total operating costs minus passenger revenue, or operating deficit--in the transit operating budget submitted to the State as part of their transit operating assistance applications, thereby making 37.5 percent of these expenses eligible for state funding. Inasmuch as Waukesha County must document such expenses in order to meet federal regulations, Waukesha County should also include these expenses in its application for state transit operating assistance each year.

To provide its specialized transportation service for handicapped persons, the Waukesha County Highway Department contracts with the Waukesha County Department of Aging, which in turn provides the services through the parallel commuter bus transportation project which it administers. During calendar year 1986, the total operating expenses on the parallel commuter bus transportation project were estimated at \$7,900. Assuming passenger fares amounting to about \$1,400, the net operating costs for this project would have been about \$6,500. Including these costs in the state transit operating assistance application would have yielded an additional \$2,400 in state transit operating assistance for calendar year 1986 for Waukesha County.

Another change which would be beneficial for the Waukesha County transit program would be to competitively procure public transit services. At the present time, the County annually re-negotiates the service contracts with the two

existing contract transit operators. If the County were to award contracts for its transit routes through a procurement process which involves competitive bidding by potential contractors, it could qualify for additional federal and state transit assistance.

With respect to federal transit assistance, Waukesha County currently uses UMTA Section 9 funds only for transit operating assistance. The portion of the total amount of Section 9 assistance allocated to the Milwaukee urbanized area which was available for use as operating assistance was limited during 1987 to about \$6.16 million. These funds in turn are allocated among the three transit operators within the Milwaukee urbanized area, with the total amount of funds allocated to the two transit operators in Waukesha County--Waukesha County and the City of Waukesha--totaling about \$400,000 in the recent past. These funds have, in turn, been divided equally between the City of Waukesha and Waukesha County in the past, with both the City and the County receiving about \$200,000. In contrast, the amount of UMTA Section 9 assistance available for capital projects in the Milwaukee urbanized area has, in the recent past, exceeded the need for such funds.

A recently announced federal policy would allow UMTA Section 9 grant recipients the option of using Section 9 capital assistance rather than operating assistance to fund the costs of privately owned capital components of the transit services provided by private transit operators under contract to the Section 9 recipient. Eligible capital components are limited to capital items such as revenue vehicles, and vehicle operating and maintenance facilities that are used in the operation of the contracted transit service, plus the capital component of overhead. Under this policy, the total eligible capital costs are limited to the actual depreciation of capital equipment and facilities used in providing the contracted transit service, plus overhead capital, which is assumed to be equal to 2 percent of the total contract costs excluding any public agency contract management costs, or a fixed percentage of the total contracted service costs, whichever is lower. For the type of transit service currently contracted for by Waukesha County from Wisconsin Coach Lines, Inc.--consisting of commuter-oriented, local, and express fixed-route bus service--the federal government has prescribed a fixed percentage cap of between 25 and 35 percent of total contract costs.

In order for Waukesha County to take advantage of this capital-cost-of-contracting provision, the federal government would likely require the County to be in conformance with federal procurement policies, which include competitive bidding on transit service once every three to five years, beginning in 1988. As previously noted, this would be in contrast to the policy which has been followed by Waukesha County since 1977 of annually renegotiating the contracts of the existing transit operators. The selection of transit operators through the competitive bidding process would, consequently, require the County to undertake additional work in selecting the operators. However, in addition to allowing the County to qualify for federal capital assistance funds, this action would also allow the County to qualify for additional state transit operating assistance funds. In this respect, current state guidelines allow public bodies contracting with privately owned transit companies to include as eligible operating expenses the expenses for depreciation and profit charged by the private transit operator if the service contract has been awarded through a process that includes competitive bidding. Consequently, the contract expenditures for the depreciation of capital equipment would qualify under the State's urban mass transit operating assistance program for state

funding amounting to 37.5 percent of such expenditures, as well as for 80 percent federal capital assistance under the UMTA capital-cost-of-contracting policy. The work effort involved in implementing a competitive procurement process could, therefore, result in a substantial amount of additional federal and state assistance being generated for the transit system, which could then be used to enhance the transit services provided, or to reduce the county tax levy for the transit system.

The potential impact of the additional federal and state transit assistance funds on the funding of the transit system operating deficit during 1988 under the status quo alternative assuming a continuation of past trends is illustrated in Table 34. The information in the table is based on the assumption that the County's transit service contracts will be competitively awarded to Wisconsin Coach Lines, Inc., and the management firm for the Milwaukee County Transit System for the routes that are currently operated. Because the federal capital-cost-of-contracting policy relates only to the costs of services provided by private transit companies such as Wisconsin Coach Lines, the cost of services provided by the Milwaukee County Transit System, which is a publicly owned and operated transit system, could not be considered. The total depreciation expenses for the bus service provided by Wisconsin Coach Lines would be projected at about \$70,000 for 1988. These expenses would be eligible for federal capital assistance under the new federal capital-cost-of-contracting policy. The major advantage of this policy is that it allows such depreciation expenses to be considered as a capital expense, rather than as part of the operating deficit for the transit system, which allows the capital expenses to be eligible for 80 percent rather than 50 percent federal funding--the maximum allowed for federal transit operating assistance projects. Consequently, \$56,000, or 80 percent, of the \$70,000 in eligible capital depreciation and overhead expenses of Wisconsin Coach Lines services during 1988 could be covered by federal capital assistance.

In addition to these additional federal funds, Waukesha County would be eligible for state funds to cover 37.5 percent of the depreciation and profit charged by Wisconsin Coach Lines in providing the contracted transit services. During 1988, the eligibility of such expenses would result in an additional \$49,200 in state urban mass transit operating assistance for Waukesha County. Together, the additional federal and state transit assistance funds would be sufficient to reduce the county funds required to operate the transit system during 1988, assuming a continuation of past trends, from approximately \$120,000 to about \$15,000--a reduction of \$105,000, or 88 percent.

The potential benefits of the transit program changes presented in the preceding sections were brought to the attention of Waukesha County staff and the Waukesha County Highway and Transportation Committee by the staffs of the Regional Planning Commission and the Wisconsin Department of Transportation, Bureau of Transit. It was noted that the additional federal and state funds generated by such actions could possibly eliminate the need for Waukesha County to reduce transit services during 1988 to meet its funding limitations. However, county officials expressed concern that there would not be adequate time among the existing county staff to handle the additional work involved in implementing the proposed program changes, particularly the work required to solicit and evaluate competitive service proposals from several transit operators, and to monitor the service provided by new transit operators.

The following sections of this chapter describe the alternative transit service options that were considered for the various routes composing the transit system during 1987 and the potential increases in the fares charged during

Table 34

**POTENTIAL IMPACTS OF COMPETITIVE PROCUREMENT OF EXISTING
TRANSIT SERVICE ON LOCAL FUNDING REQUIREMENTS FOR WAUKESHA
COUNTY TRANSIT SYSTEM: 1988 STATUS QUO ALTERNATIVE**

Operating Characteristic	1987 Estimated	1988 Projected Assuming a Continuation of Past Trends ^a	
		With Negotiated Service Contracts	With Competitively Awarded Service Contracts
Total Operating Expenses	\$979,000	\$1,017,000	\$1,017,000
Estimated Expenses Attributable to Depreciation of Privately Owned Equipment and Facilities Plus Overhead Capital	\$ --	\$ --	\$ 70,000 ^b
Operating Revenues	\$334,900	\$ 315,700	\$ 315,700
Operating Deficit			
Federal Share			
Attributable to Operating Assistance	\$226,900	\$ 200,000	\$ 200,000
Attributable to Capital Assistance	--	--	56,000
Subtotal	\$226,900	\$ 200,000	\$ 256,000
State Share			
Attributable to			
Regular Operating Expenses	\$367,100	\$ 381,400	\$ 381,400
Attributable to Expenses			
for Depreciation and Profit			
Charged by Private Operators	--	--	49,200 ^c
Subtotal	\$367,100	\$ 381,400	\$ 430,600
Local Share	\$ 50,100	\$ 119,900	\$ 14,700
Total	\$644,100	\$ 701,300	\$ 701,300

^aData available for preliminary transit system operating budget do not identify projected operating expenses for services to be operated during 1988 by Wisconsin Coach Lines, Inc. Estimates of additional federal and state transit assistance funds, therefore, could not be developed for this set of projections.

^bRepresents total depreciation expenses of \$55,800 plus overhead capital expenses of \$14,200 for Wisconsin Coach Lines, Inc., bus service during 1988. Total depreciation expenses are based on 328,300 total vehicle miles of service for Routes No. 1, 2, 3, and 4, and a depreciation expense of \$0.17 per vehicle mile. Overhead capital expenses are based upon 2 percent of the total operating expenses for Routes No. 1, 2, 3, and 4 of \$711,500 projected for 1988.

^cAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities and profit. These expenses during 1988 would amount to about \$0.17 and \$0.23 per total vehicle mile of service, respectively, for Wisconsin Coach Lines, Inc. These expenses would be added to the base rate of approximately \$2.17 per mile, as estimated by Commission staff, which would be charged to Waukesha County for service provided by Wisconsin Coach Lines in 1988. A total cost of \$2.57 per vehicle mile would thus be used in calculating state aid for the service provided by the private operator.

Source: SEWRPC.

1987 which could be considered to reduce the local tax levy for the county transit system to levels that would be within the specified budget limits. Presented first is a description of the potential service cutbacks on the two bus routes operated between the City of Oconomowoc and downtown Milwaukee during 1987. This is followed by a similar description of service cutbacks for the two bus routes operated during 1987 between the City of Waukesha and downtown Milwaukee. Based upon the conclusions of the evaluation of route performance presented in the previous chapter, no service modifications were proposed during 1988 for Route No. 10, the Brookfield Square local route extension, or Route No. 79, the Menomonee Falls freeway flyer. The third section presents information on the impacts of increasing passenger fares over those charged on the transit system during 1987.

The ridership estimates prepared for each alternative service option were based upon current population levels and economic conditions within Waukesha County and passenger counts taken on the transit system during both 1986 and 1987. All costs and related financial data are presented in 1988 dollars.

Alternative Service Options for Oconomowoc-to-Milwaukee Routes

The first set of alternative service options considered was for the two routes operating between the City of Oconomowoc and downtown Milwaukee--Route No. 3, Oconomowoc to downtown Milwaukee via STH 16; and Route No. 4, Oconomowoc to downtown Milwaukee via IH 94. The evaluation of route performance presented in the previous chapter indicated that these two routes were made up of a large number of segments west of the Goerke's Corners public transit station that exhibit little passenger activity. Accordingly, three service options for these routes which would reduce or eliminate the transit service currently being provided west of the Goerke's Corners public transit station were considered.

Option 1--Reduce Oconomowoc-to-Milwaukee Service: Under the first service option considered, bus service over the Oconomowoc-to-Milwaukee route operating over STH 16 would be reduced during 1988 by eliminating service west of the Goerke's Corners public transit station on one morning inbound run and one afternoon outbound run. Specifically, the 6:55 a.m. inbound bus run originating in the City of Oconomowoc and the 5:05 p.m. outbound bus run originating in the Milwaukee central business district would be cut back to operate only between the Goerke's Corners public transit station and downtown Milwaukee. One inbound morning bus run and one outbound afternoon bus run would still be operated between Oconomowoc and downtown Milwaukee over STH 16, along with the freeway flyer bus service provided between Oconomowoc and downtown Milwaukee. This service change would enable the Oconomowoc-to-Milwaukee bus routes to operate using the buses that are currently stored by Wisconsin Coach Lines, Inc., in the City of Oconomowoc, thereby eliminating the need to incur expenses for deadheading a vehicle between the company's bus garage in the City of Waukesha and the end of the routes in downtown Oconomowoc.

The impact of this service option on the ridership and financial projections for the status quo alternative during calendar year 1988 is presented in Table 35. Because the bus service eliminated under this option currently carries very few passengers west of the Goerke's Corners public transit station, the impact of this service change upon annual transit system ridership is expected to be minimal, amounting to a reduction of about 2,600 revenue passengers, or about 1 percent of the projected ridership under the status quo alternative. Similarly, the decrease in operating revenue would be expected to be small, amounting to about \$6,000, or between 1 and 2 percent of the operating revenue projected under the status quo alternative. This service change would, however, be expected to significantly reduce operating expenses for the transit system, in part because of the elimination of expenses incurred in deadheading vehicles between the bus garage in the City of Waukesha and the end of the route in the City of Oconomowoc. Operating expenses for the transit system during 1988 may be expected to be reduced by about \$41,000 as a result of this service reduction, or by about 4 percent from the expenses projected under the status quo alternative. As a result, the total operating

Table 35

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
OCONOMOWOC-TO-MILWAUKEE SERVICE OPTION NO. 1**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Reduced Oconomowoc to Milwaukee Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-2,600	263,400	239,400
Total Annual Vehicle Miles	429,960	431,708	431,708	-18,761	412,947	412,947
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$40,700	\$967,300	\$976,300
Per Revenue Passenger	3.85	3.79	4.20	15.65	3.67	4.07
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.30	\$2.31	\$1.31	\$1.29
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 6,000	\$344,000	\$308,200
Other Revenue	1,500	1,500	1,500	-	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 6,000	\$345,500	\$309,700
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	14.7	35.7	31.7
Operating Deficit Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ -	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-15,300	362,700	366,100
Local Share	50,100	73,500	119,900	-19,400	54,100	100,500
Total	\$644,100	\$ 656,500	\$ 701,300	-\$34,700	\$621,800	\$666,600
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$13.35	\$2.36	\$2.78

Source: SEWRPC.

deficit for the transit system would be reduced by about \$35,000, or from 4 to 5 percent, and the local share of the operating deficit would be reduced by about \$19,000, or by 16 to 26 percent, from the projections under the status quo alternative for 1988.

Option 2--Eliminate All Oconomowoc-to-Milwaukee Service, with No Service Change from Goerke's Corners Public Transit Station: Under this option, all bus service between the City of Oconomowoc and the Goerke's Corners public transit station would be eliminated during 1988. This would involve cutting back the three morning inbound bus runs and the three afternoon outbound bus runs operated between the City of Oconomowoc and the Milwaukee central business district during 1987 to operate only between the Goerke's Corners public transit station and downtown Milwaukee. Buses operating over these runs would continue to use the current routing east of Goerke's Corners. This service change would eliminate the low ridership segments of the Oconomowoc-to-Milwaukee routes while maintaining the current level of service provided to the Goerke's Corners public transit station.

The impact of this service option on ridership and financial projections for the status quo alternative during calendar year 1988 is presented in Table 36. This service change would reduce transit system ridership by about 15,000 revenue passengers, or by 5 to 6 percent from the status quo projections for 1988. As a result of this service change, operating revenues would decrease by about \$31,000, representing a reduction of 10 to 11 percent. Operating expenses for the transit system in 1988 would be reduced by about \$85,000 as a result of this reduction, or by about 8 percent from the expenses projected

Table 36

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE OCONOMOWOC-TO-MILWAUKEE SERVICE OPTION NO. 2

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Oconomowoc to Milwaukee Service with No Change from Goerke's Corners Public Transit Station		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	\$0,242,000	-15,000	251,000	227,000
Total Annual Vehicle Miles	429,960	431,708	431,708	-39,321	392,837	392,837
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$85,200	\$922,800	\$931,800
Per Revenue Passenger	3.85	3.79	4.20	5.68	3.68	4.10
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.29	\$2.06	\$1.28	\$1.24
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$31,000	\$319,000	\$283,200
Other Revenue	1,500	1,500	1,500	-\$300	1,200	1,200
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$31,300	\$320,200	\$284,400
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	36.7	34.7	30.5
Operating Deficit Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-32,000	346,000	349,400
Local Share	50,100	73,500	119,900	-21,900	51,600	98,000
Total	\$644,100	\$ 656,500	\$ 701,300	-\$53,900	\$602,600	\$647,400
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$3.62	\$2.40	\$2.85

Source: SEWRPC.

under the status quo alternative. As a result, the total operating deficit for the transit system would be reduced by about \$54,000, or by 7 to 8 percent, and the local share of the operating deficit would be reduced by about \$22,000, or by 18 to 30 percent, from the projections under the status quo alternative for 1988.

Option 3--Eliminate All Oconomowoc-to-Milwaukee Service, with Some Service Reduction at the Goerke's Corners Public Transit Station: The service change proposed under this option is similar to that proposed under Option No. 2 in that all bus service between the City of Oconomowoc and the Goerke's Corners public transit station would be eliminated during 1988. However, whereas under Option No. 2 all six Oconomowoc-to-Milwaukee bus runs would continue to operate between Goerke's Corners and the Milwaukee central business district, under this option only four of those six bus runs would continue to be operated. The remaining two bus runs operated during 1987 between Oconomowoc and Milwaukee would be eliminated, including the portion of the runs operated between Goerke's Corners and downtown Milwaukee. The bus runs that would be candidates for total elimination include the 6:45 a.m. inbound run operated over Route No. 4 and the 5:05 p.m. outbound run operated over Route No. 3. Passenger counts conducted by Wisconsin Coach Lines, Inc., indicated that the volume of passengers using these bus runs and boarding or alighting at the Goerke's Corners public transit station could be accommodated by the bus runs operated over Route No. 2--Waukesha to Milwaukee via Blue Mound Road. Under this service option, the number of peak-period bus runs serving the Goerke's Corners public transit station would be reduced to the level that existed

Table 37

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
OCONOMOWOC-TO-MILWAUKEE SERVICE OPTION NO. 3**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Oconomowoc to Milwaukee Service with Reduced Service from Goerke's Corners Public Transit Station		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-17,800	248,200	224,200
Total Annual Vehicle Miles	429,960	431,708	431,708	-57,311	374,397	374,397
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$124,200	\$883,800	\$892,800
Per Revenue Passenger	3.85	3.79	4.20	6.98	3.56	3.98
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.28	\$1.95	\$1.27	\$1.25
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 34,700	\$315,300	\$279,500
Other Revenue	1,500	1,500	1,500	-\$300	1,200	1,200
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 35,000	\$316,500	\$280,700
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	28.2	35.8	31.4
Operating Deficit Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-46,600	331,400	334,800
Local Share	50,100	73,500	119,900	-42,600	30,900	77,900
Total	\$644,100	\$ 656,500	\$ 701,300	-\$ 89,200	\$567,300	\$612,100
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$5.01	\$2.29	\$2.73

Source: SEWRPC.

before additional freeway flyer service between Oconomowoc and downtown Milwaukee was implemented over Route No. 4 in April 1981.

The ridership and financial projections for the transit system alternative with this service option are presented in Table 37. The impact of this service change upon annual transit system ridership would be a reduction of about 18,000 revenue passengers, or about 6 to 7 percent less than the projected ridership without this service change. The reduction in transit service may would reduce transit system operating revenues by about \$35,000, or by 9 to 11 percent. This service change would, however, be expected to significantly reduce operating expenses for the transit system, as operating expenses for 1988 could be expected to be reduced by about \$124,000, or by about 12 percent. Based on these changes in operating expenses and revenues, the total operating deficit for the transit system would be reduced by about \$89,000, or by 13 to 14 percent. The local share of the operating deficit would be reduced by about \$42,000, or by 35 to 57 percent.

Alternative Service Options for Milwaukee-to-Waukesha Routes

The second set of service changes considered was for the two routes operating between the City of Waukesha and the Milwaukee central business district-- Route No. 1, Waukesha to Milwaukee via Greenfield Avenue; and Route No. 2, Waukesha to Milwaukee via Blue Mound Road. The evaluation of route performance presented in the previous chapter indicated that these two routes attracted high levels of transit ridership during weekday peak periods, but, on an overall basis, including off-peak periods on weekdays and weekends, had lower than

Table 38

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
WAUKESHA-TO-MILWAUKEE SERVICE OPTION NO. 1**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Waukesha to Milwaukee Sunday and Holiday Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-3,500	262,500	238,500
Total Annual Vehicle Miles	429,960	431,708	431,708	-10,374	419,586	421,334
Operating Expenses						
Annual	\$979,000	\$1,008,000	\$1,017,000	-\$22,500	\$985,500	\$994,500
Per Revenue Passenger	3.85	3.79	4.20	6.43	3.75	4.17
Operating Revenue						
Per Passenger	\$1.31	\$1.32	\$1.30	\$1.37	\$1.32	\$1.30
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 4,800	\$345,200	\$309,400
Other Revenue	1,500	1,500	1,500	--	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 4,800	\$346,700	\$310,900
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	21.3	35.2	31.3
Operating Deficit						
Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-8,450	369,550	372,944
Local Share	50,100	73,500	119,900	-9,250	64,250	110,650
Total	\$644,100	\$ 656,500	\$ 701,300	-\$17,700	\$638,800	\$683,600
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$5.06	\$2.43	\$2.87

Source: SEWRPC.

average productivity and financial performance. The analysis indicated that this was caused by the low volume of transit passengers carried by these routes on weekends and during midday and evening off-peak periods on weekdays. The five service options for these routes presented below examine the impacts of reducing service on these routes during weekends and weekday off-peak periods of operation.

Option 1--Eliminate Sunday and Holiday Service: The first service option for the Waukesha-to-Milwaukee bus routes would eliminate the Sunday and holiday service being provided during 1987. Three round trips were provided over Route No. 1 using Greenfield Avenue, and one round trip was provided over Route No. 2 using Blue Mound Road on Sundays and holidays.

The impact of this service option on the ridership and financial projections for the transit system during calendar year 1988 is presented in Table 38. Because the Sunday bus service which would be eliminated under this option carries very few passengers, the impacts of the service change upon annual transit ridership would be minimal, amounting to a reduction of about 3,500 revenue passengers, or about 1 percent of the ridership projections for the transit system for 1988 without this service change. Similarly, the decrease in operating revenue would be small, amounting to about \$4,800, or about 1 percent of the operating revenue projected for the status quo alternative. The operating expenses for the transit system during 1988 with this service change would be reduced by about \$23,000, or about 3 percent. The total operating deficit for the transit system would be reduced by about \$18,000, or by 2 to 3 percent. The local share of the operating deficit would be reduced

Table 39

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
WAUKESHA-TO-MILWAUKEE SERVICE OPTION NO. 2**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Waukesha to Milwaukee Saturday, Sunday, and Holiday Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-8,900	257,100	233,100
Total Annual Vehicle Miles	429,960	431,708	431,708	-25,038	406,670	406,670
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$54,300	\$953,700	\$962,700
Per Revenue Passenger	3.85	3.79	4.20	6.10	3.71	4.13
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.30	\$1.38	\$1.32	\$1.30
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$12,300	\$337,700	\$301,900
Other Revenue	1,500	1,500	1,500	--	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$12,300	\$339,200	\$303,400
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	22.7	35.6	31.5
Operating Deficit Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-20,400	357,600	361,000
Local Share	50,100	73,500	119,900	-21,600	51,900	98,300
Total	\$644,100	\$ 656,500	\$ 701,300	-\$42,000	\$614,500	\$659,300
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$4.72	\$2.39	\$2.83

Source: SEWRPC.

by about \$9,000, or by 8 to 12 percent from that projected for the transit system with no service changes.

Option 2--Eliminate Saturday, Sunday, and Holiday Service: Under this option, all weekend and holiday service provided over Routes No. 1 and 2 would be eliminated in 1988. This service change would also eliminate the three round trips provided over each route on Saturdays during 1987.

The ridership and financial projections for the transit system without Saturday, Sunday, or holiday service on Routes No. 1 and 2 are presented in Table 39. The combined effects of eliminating both weekend and holiday service on annual transit system ridership would be a reduction of almost 9,000 revenue passengers during 1988, representing a reduction of between 3 and 4 percent of the ridership projections for the transit system with weekend and holiday service. With the loss in transit ridership, the elimination of weekend and holiday service would also be expected to reduce transit system operating revenues by about \$12,000, or by 3 to 4 percent. The reduction in projected operating expenses for the transit system would be about 5 percent, amounting to about \$54,000; and the reduction in the total operating deficit for the transit system would be between 6 and 7 percent, amounting to about \$42,000. The local share of the operating deficit would be reduced by about \$22,000, or by 18 to 30 percent.

Option 3--Eliminate Some Weekday Midday Service and Late Evening Service: The third service option for Routes No. 1 and 2 proposed that six bus runs which were operated in 1987 over these routes between the City of Waukesha and the

Table 40

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
WAUKESHA-TO-MILWAUKEE SERVICE OPTION NO. 3**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Some Weekday Midday Service to Brookfield Square and Late Evening Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-6,600	259,400	235,400
Total Annual Vehicle Miles	429,960	431,708	431,708	-22,359	409,349	409,349
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$48,500	\$959,500	\$968,500
Per Revenue Passenger	3.85	3.79	4.20	7.35	3.70	4.11
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.30	\$1.27	\$1.32	\$1.30
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 8,400	\$341,600	\$305,800
Other Revenue	1,500	1,500	1,500	--	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 8,400	\$343,100	\$307,300
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	17.3	35.8	31.7
Operating Deficit						
Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-18,200	359,800	363,200
Local Share	50,100	73,500	119,900	-21,900	51,600	98,000
Total	\$644,100	\$ 656,500	\$ 701,300	-\$40,100	\$616,400	\$661,200
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$6.08	\$2.38	\$2.81

Source: SEWRPC.

Brookfield Square Shopping Center during the midday off-peak period be eliminated in 1988, along with the last round trip operated over the routes in the evening. Specifically, the bus runs leaving downtown Waukesha at 10:00 a.m., 11:00 a.m., and 12:15 p.m., along with the return trips for these bus runs leaving the Brookfield Square Shopping Center at 10:30 a.m., 11:45 a.m., and 12:45 p.m., would be discontinued. In addition, the last bus run leaving downtown Waukesha at 7:30 p.m. and its return trip leaving downtown Milwaukee at 9:10 p.m. would be eliminated. Passenger counts taken by Wisconsin Coach Lines, Inc., in September 1986 and July 1987 indicated that ridership on these bus runs was extremely low. Even with the elimination of these runs, transit service between the City of Waukesha and the Brookfield Square Shopping Center would be available during the midday period as six bus runs would still serve the shopping center. With the elimination of the last bus trip between Waukesha and Milwaukee from the 1987 schedule, bus trips leaving downtown Waukesha at 5:15 p.m. and downtown Milwaukee at 6:15 p.m. would become the last scheduled bus runs over these routes.

The ridership and financial projections for the transit system with this service option are presented in Table 40. As indicated in the table, a decrease in annual transit ridership of about 6,600 revenue passengers would result from this service change, representing about 3 percent of the baseline ridership projected for the transit system. Operating revenues for the transit system would be reduced by about \$8,400, or between 2 and 3 percent. Operating expenses for the transit system would decrease by about \$48,500, or about 5 percent. Based on changes in operating expenses and revenues, the total operating deficit for the transit system would be reduced by about \$40,000, or

Table 41

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
WAUKESHA-TO-MILWAUKEE SERVICE OPTION NO. 4**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate Most Weekday Midday and Late Evening Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-19,700	246,300	222,300
Total Annual Vehicle Miles	429,960	431,708	431,708	-60,395	371,313	371,313
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$130,900	\$877,100	\$886,100
Per Revenue Passenger	3.85	3.79	4.20	6.64	3.56	3.99
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.30	\$1.34	\$1.32	\$1.29
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 26,500	\$323,500	\$287,700
Other Revenue	1,500	1,500	1,500	--	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 26,500	\$325,000	\$289,200
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	20.2	37.0	31.9
Operating Deficit						
Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ --	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-49,100	328,900	332,300
Local Share	50,100	73,500	119,900	-55,300	18,200	64,600
Total	\$644,100	\$ 656,500	\$ 701,300	-\$104,400	\$552,100	\$596,900
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$5.30	\$2.24	\$ 2.69

Source: SEWRPC.

about 6 percent. The local share of the operating deficit would be reduced by about \$22,000, or between 18 and 30 percent.

Option 4--Eliminate Most Weekday Midday and Late Evening Services: This service option proposes that additional midday bus runs be eliminated during 1988, along with the midday and late evening service reductions proposed under Option No. 3. Specifically, three additional inbound bus runs operating during 1987--leaving downtown Waukesha at 11:30 a.m., 1:00 p.m., and 2:10 p.m.--and three additional outbound bus runs leaving downtown Milwaukee at 10:15 a.m., 2:15 p.m., and 3:20 p.m. would be eliminated. While the 1987 bus schedule for Routes No. 1 and 2 provided for a total of 19 inbound and 18 outbound bus runs each weekday, after the service cuts proposed under this option, 12 weekday inbound bus runs and 11 weekday outbound bus runs would remain.

The impact of this service change on the ridership and financial projections for the transit system during calendar year 1988 is presented in Table 41. About 20,000 revenue passengers, or between 7 and 8 percent of the ridership projections for 1988 under the status quo alternative, would be lost with the bus run eliminations proposed under this service option. About \$26,500 in operating revenues would also be lost. The service changes would, however, have a significant impact on annual operating expenses for the transit system, with expenses expected to decline by about \$131,000, or about 13 percent. The impact of this service change on the total operating deficit for the transit system and the county share of the deficit would also be significant, with the total deficit expected to be reduced by about \$104,000, or between 15 and 16 percent; and the county share expected to decline by about \$55,000, or between 46 and 75 percent.

Table 42

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE
WAUKESHA-TO-MILWAUKEE SERVICE OPTION NO. 5**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative		Eliminate All Weekday Midday and Late Evening Service		
		Preliminary Transit System Budget	Continuation of Past Trends	Incremental Change	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	266,000	242,000	-33,500	232,500	208,500
Total Annual Vehicle Miles	429,960	431,708	431,708	-84,296	347,412	347,412
Operating Expenses Annual	\$979,000	\$1,008,000	\$1,017,000	-\$182,700	\$825,300	\$834,300
Per Revenue Passenger	3.85	3.79	4.20	5.45	3.55	4.00
Operating Revenue Per Passenger	\$1.31	\$1.32	\$1.30	\$1.34	\$1.32	\$1.29
Annual Passenger Revenue	\$333,400	\$ 350,000	\$ 314,200	-\$ 44,800	\$305,200	\$269,400
Other Revenue	1,500	1,500	1,500	-	1,500	1,500
Total Revenue	\$334,900	\$ 351,500	\$ 315,700	-\$ 44,800	\$306,700	\$270,900
Percent of Expenses Recovered Through Operating Revenues	34.2	34.9	31.0	24.5	37.2	32.5
Operating Deficit Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$ -	\$205,000	\$200,000
State Share	367,100	378,000	381,400	-68,500	309,500	312,900
Local Share	50,100	73,500	119,900	-69,400	4,100	50,500
Total	\$644,100	\$ 656,500	\$ 701,300	-\$137,900	\$518,600	\$563,400
Per Revenue Passenger	\$2.53	\$2.47	\$2.90	\$4.12	\$2.23	\$2.70

Source: SEWRPC.

Option 5--Eliminate All Weekday Midday and Late Evening Service: This service option would represent a maximum reduction in the weekday transit service provided over Routes No. 1 and 2. Under this option, all midday bus runs and some bus runs in the early afternoon peak period would be eliminated during 1988, along with the late evening bus runs described under Option No. 3. In addition to those bus runs proposed to be eliminated under Options No. 3 and 4, the inbound bus runs leaving downtown Waukesha at 9:00 a.m. and 3:10 p.m. and the outbound bus runs leaving downtown Milwaukee at 1:00 p.m. and 4:10 p.m. would be eliminated. With these service changes, transit service over Routes No. 1 and 2 would be provided only during the peak periods of each weekday. Of the 19 inbound bus runs in the 1987 schedule, only 10 would continue to be operated; of the 18 outbound bus runs in the 1987 schedule, only nine would continue to be operated. The bus runs to be eliminated under this service option are those that serve during the weekday period when transit ridership is lowest.

The ridership and financial projections for the transit system under this service option are presented in Table 42. As a result of the elimination of all midday and late evening service on these routes, systemwide transit ridership would decline by about 34,000 revenue passengers, or between 12 and 14 percent. Operating revenues would also decline significantly, with revenues expected to drop by about \$45,000, or between 12 and 15 percent. As would be expected with the magnitude of the service changes proposed under this option, a substantial decline in operating expenses would also occur, with expenses

decreasing by about \$183,000, or about 18 percent. Based on these changes in operating expenses and revenues, the total deficit for the transit system would be reduced by about \$138,000, or between 20 and 22 percent, and the local share of the operating deficit would be reduced by about \$69,000, or between 58 and 94 percent.

Alternative Fare Increases

In addition to reductions in transit services, it was proposed that Waukesha County also consider increasing passenger fares to generate additional operating revenues and reduce the level of county funding required for the transit system during 1988. Passenger fares for the routes operated by Wisconsin Coach Lines, Inc., were last increased in January 1986. At that time, the base transit fares for the four routes operated by Wisconsin Coach Lines, which had ranged from \$1.15 to \$3.05 per one-way trip, were increased by about 10 percent to the current fares of \$1.25 to \$3.35 per one-way trip. Base cash fares for the two routes operated by the Milwaukee County Transit System for Waukesha County were last increased in January 1987, when the Milwaukee County Transit System implemented a systemwide fare increase. At that time, base fares for the two routes, which had ranged from \$1.05 on Route No. 10--the Brookfield Square local route extension--to \$1.40 on Route No. 79--the Menomonee Falls freeway flyer--were increased by about 20 percent to \$1.25 per one-way trip and \$1.65 per one-way trip, respectively.

Operating expenses for the six routes operated by the transit system in 1987 were projected to increase by about 8 percent over 1986 levels by 1988. Some increases in passenger fares may be warranted based on a desirable goal of having increases in passenger fares keep pace with increases in operating expenses. However, a drawback to raising passenger fares is that increases generally cause a decrease in ridership, with the level of ridership lost directly related to the amount of the fare increase.

Two options for increasing transit fares for the Waukesha County transit system were developed and analyzed, and are presented below. The first option considers the impacts of a systemwide fare increase of about 5 percent on the previously presented projections of ridership and financial performance under the various alternative service changes. The second option considers the impact of an increase in passenger fares of 10 percent.

Option 1--Increase Fares by 5 Percent Systemwide: Under this option, Waukesha County would increase the base fares charged on all six of the bus routes composing the county transit system by 5 percent. Fares on the four bus routes operated by Wisconsin Coach Lines, Inc., would be increased by \$0.05 to \$0.15 and would range from \$1.30 to \$3.35 per one-way trip after the fare increase. Fares on the bus routes operated by the Milwaukee County Transit System would be increased by \$0.05 to \$0.10 per one-way trip, and would range from \$1.30 per one-way trip on Route No. 10 to \$1.75 per one-way trip on Route No. 79.

The impacts of these increases in passenger fares on the ridership and financial performance of the Waukesha County transit system under each of the alternative service options are presented in Table 43. Based upon available literature describing the impacts of increases in passenger fares on transit

Table 43

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM
UNDER ALTERNATIVE SERVICE OPTIONS ASSUMING A 5 PERCENT FARE INCREASE SYSTEMWIDE**

Operating Characteristic	1987 Estimated	1988 Projected with 5 Percent Fare Increase							
		Status Quo Alternative		Alternative Service Changes for Oconomowoc to Milwaukee Routes					
				Option No. 1		Option No. 2		Option No. 3	
		Preliminary Transit System Budget	Continuation of Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	261,300	237,800	258,800	235,200	246,600	223,000	239,900	220,300
Annual Operating Expense	\$979,000	\$1,008,000	\$1,017,000	\$967,300	\$976,300	\$922,800	\$931,800	\$883,800	\$892,800
Annual Operating Revenues	\$334,900	\$ 358,500	\$ 322,000	\$352,400	\$315,900	\$326,600	\$290,100	\$322,800	\$286,300
Percent of Expenses Recovered Through Operating Revenues	34.2	35.6	32.6	36.4	32.4	35.4	31.1	36.5	32.1
Annual Operating Deficit									
Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000
State Share	367,100	378,000	381,400	362,700	366,100	346,000	349,400	331,400	334,800
Local Share	50,100	66,500	113,600	47,200	94,300	45,200	92,300	24,600	71,700
Total	\$644,100	\$ 649,500	\$ 695,000	\$614,900	\$660,400	\$596,200	\$641,700	\$561,000	\$606,500

Operating Characteristic	1988 Projected with 5 Percent Fare Increase									
	Alternative Service Changes for Waukesha to Milwaukee Routes									
	Option No. 1		Option No. 2		Option No. 3		Option No. 4		Option No. 5	
	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	257,900	234,300	252,600	229,000	254,900	231,300	242,000	218,400	228,400	204,900
Annual Operating Expense	\$985,500	\$994,500	\$953,700	\$962,700	\$959,500	\$968,500	\$877,100	\$886,100	\$825,300	\$834,300
Annual Operating Revenues	\$353,600	\$317,100	\$346,000	\$309,500	\$350,000	\$313,400	\$331,500	\$295,000	\$312,800	\$276,300
Percent of Expenses Recovered Through Operating Revenues	35.9	31.9	36.3	32.1	36.5	32.4	37.8	33.3	37.9	33.1
Annual Operating Deficit										
Federal Share	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$203,000	\$200,000
State Share	369,500	372,900	357,600	361,000	359,800	363,200	328,900	332,300	309,500	312,900
Local Share	57,400	104,500	45,100	92,200	44,700	91,900	11,700	58,800	--	45,100
Total	\$631,900	\$677,400	\$607,700	\$653,200	\$609,500	\$655,100	\$545,600	\$591,100	\$512,500	\$558,000

system ridership and revenues,¹ the fare increases considered would result in a decrease ridership on the transit system of about 1.75 percent, thus resulting in an increase in operating revenues for the transit system of about 2 percent. Under the status quo alternative based on a continuation of past trends, the increase in passenger fares proposed under this option would generate an additional \$6,300 in operating revenues which could be directly applied to reduce the county share of the operating deficit for the transit system during 1988 from the local deficit of about \$120,000 projected based on current fares to about \$114,000. Similar increases in operating revenues and reductions in the local share of the operating deficit, ranging from \$5,400 to \$6,200, would be expected under the alternative service options described above.

Option 2--Increase Fares by 10 Percent Systemwide: This option proposes that passenger fares be raised by 10 percent on all routes operated by the transit system. For the four bus routes operated by Wisconsin Coach Lines, Inc., this would result in an increase in passenger fares of between \$0.15 and \$0.35, with base fares ranging from \$1.40 to \$3.70 per one-way trip after the fare increase. Passenger fares on the routes operated by the Milwaukee County Transit System would be increased by about \$0.15, with fares on Route No. 10--the Brookfield Square local route extension--increased to \$1.40 per one-way trip, and fares on Route No. 79--the Menomonee Falls freeway flyer--increased to \$1.80 per one-way trip.

The impacts of these fare increases on the previously presented projections of ridership and financial performance for the transit system under the various service options are presented in Table 44. With the proposed fare increases, systemwide ridership would decrease by about 4 percent from the previous ridership projections, while revenues would increase by about 4.5 percent. For the status quo alternative based on a continuation of past trends, revenues would be expected to increase by about \$14,000 as a result of the fare increases. This would lower the county share of the operating deficit for the transit system in 1988 from about \$120,000 to about \$106,000. Increases in transit system operating revenues ranging from \$12,000 to \$14,000 would be realized under each of the service options described above.

Preliminary Staff Recommendations

As already noted, county funding for the transit system could not exceed \$41,200 during 1988 if it was to conform to the budgetary constraints placed on all county departments by the County Board for the 1988 county budget. Both sets of projections of county funding required for operating the transit system with no changes in service levels or fares during 1988 indicated that the county funding for the transit system would exceed the level stipulated by the County Board. The discussions of alternative service options for transit service and passenger fares were intended to provide an indication of the impact

¹See Transit System Performance Evaluation and Service Change Manual, U. S. Department of Transportation, February 1981, pp. V-7 through V-8.

Table 44

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE SERVICE OPTIONS ASSUMING A 10 PERCENT FARE INCREASE SYSTEMWIDE

Operating Characteristic	1987 Estimated	1988 Projected with 10 Percent Fare Increase							
		Status Quo Alternative		Alternative Service Changes for Oconomowoc to Milwaukee Routes					
				Option No. 1		Option No. 2		Option No. 3	
		Preliminary Transit System Budget	Continuation of Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	254,600	255,400	233,300	252,900	229,800	241,000	217,900	234,400	215,200
Annual Operating Expense	\$979,000	\$1,008,000	\$1,017,000	\$967,300	\$976,300	\$922,800	\$931,800	\$883,800	\$892,800
Annual Operating Revenues	\$334,900	\$ 367,300	\$ 329,900	\$361,000	\$323,600	\$334,600	\$297,200	\$330,700	\$293,300
Percent of Expenses Recovered Through Operating Revenues	34.2	36.4	32.4	37.3	33.1	36.3	31.9	37.4	32.8
Annual Operating Deficit									
Federal Share	\$226,900	\$ 205,000	\$ 200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000
State Share	367,100	378,000	381,400	362,700	366,100	346,000	349,400	331,400	334,800
Local Share	50,100	57,700	105,700	38,600	86,600	37,200	85,200	16,700	64,700
Total	\$644,100	\$ 640,700	\$ 687,100	\$606,300	\$652,700	\$588,200	\$634,600	\$553,100	\$599,500

Operating Characteristic	1988 Projected with 10 Percent Fare Increase									
	Alternative Service Changes for Waukesha to Milwaukee Routes									
	Option No. 1		Option No. 2		Option No. 3		Option No. 4		Option No. 5	
	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends	Modified Preliminary Budget	Modified Past Trends
Annual Revenue Passengers	252,000	229,000	246,800	223,800	249,000	226,000	236,400	213,400	223,200	200,200
Annual Operating Expense	\$985,500	\$994,500	\$953,700	\$962,700	\$959,500	\$968,500	\$877,100	\$886,100	\$825,300	\$834,300
Annual Operating Revenues	\$362,300	\$324,900	\$354,500	\$317,000	\$358,500	\$321,100	\$339,600	\$302,200	\$320,500	\$283,100
Percent of Expenses Recovered Through Operating Revenues	36.8	32.7	37.2	32.9	37.4	33.1	38.7	34.1	38.8	33.9
Annual Operating Deficit										
Federal Share	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$205,000	\$200,000	\$195,300	\$200,000
State Share	369,500	372,900	357,600	361,000	359,800	363,200	328,900	332,300	309,500	312,900
Local Share	48,700	96,700	36,600	84,700	36,200	84,200	3,600	51,600	--	38,300
Total	\$623,200	\$669,600	\$599,200	\$645,700	\$601,000	\$647,400	\$537,500	\$583,900	\$504,800	\$551,200

that the various actions considered could have on the need for county funding for the transit system during calendar year 1988. The alternative service options considered focus on segments of the transit system that were found to have low ridership or poor levels of productivity and financial performance. Therefore, each service option considered would improve the overall productivity and efficiency of the transit system, while helping to meet the budgetary constraints imposed by the County Board.

As previously noted, two sets of projections were prepared for a status quo, or do nothing, alternative under which the routes, service levels, and fares on the transit system during 1988 were assumed to remain unchanged from those in effect during 1987. The first set of projections represented the preliminary operating budget for the transit system for calendar year 1988 as developed by Waukesha County staff. These projections required a county tax levy of \$73,500 in support of the transit system during 1988. However, the preliminary transit system budget assumed an increase in operating revenue of about \$17,000, or 5 percent, over the \$335,000 in operating revenues which were estimated for 1987--a substantial increase during a time when the number of passengers using the transit system, and passenger revenue, were actually declining. For this reason, a second set of projections was prepared by the Commission staff, based on an assumed continuation of past trends. Under this set of projections, the county share of the total system operating deficit for 1988 was estimated to total \$120,000. Changes in transit services and fares that would be needed to reduce the county tax levy to approximately \$41,000 for 1988 were then considered. The recommended actions which would be necessary in order for the County to reach this level of local funding commitment during 1988 are listed in Table 45. The four actions listed call for the elimination of some bus service, but do not call for any increases in passenger fares during 1988.

The first action listed calls for the elimination in 1988 of all bus service provided by the transit system in 1987 between the City of Oconomowoc and the Milwaukee central business district, as proposed under alternative Option No. 3 for the Oconomowoc-to-Milwaukee bus routes. Elimination of the segments of Routes No. 3 and 4 operated west of the Goerke's Corners public transit station would eliminate segments of the transit system that were found to have very little passenger activity. Four of the six bus runs operated over these two routes in 1987 would still be needed in 1988 to accommodate the passenger demand generated at the Goerke's Corners transit station. Service between Goerke's Corners and downtown Milwaukee would, therefore, be reduced to the level that existed before additional freeway flyer service between Oconomowoc and downtown Milwaukee was implemented over Route No. 4 in April 1981. In this respect, it should be noted that the ridership levels on the bus routes serving the Goerke's Corners public transit station during 1987 were about 12 percent below the ridership levels that existed on the routes serving the transit station at the time bus service was expanded in 1981. The elimination of bus service west of the Goerke's Corners public transit station would be consistent with information provided in Chapter III of this report, which indicated that, generally, rapid and express transit service should not be considered for portions of Waukesha County outside the City of Waukesha and portions of the Village of Menomonee Falls, the City of Brookfield, and the City of New Berlin.

Table 45

**PRELIMINARY STAFF RECOMMENDATIONS FOR REDUCING
WAUKESHA COUNTY FUNDING FOR TRANSIT SERVICE IN 1988**

Actions Recommended for Reducing County Funding to Level Prescribed for County Budget	Actions That Could Be Considered for Additional Reductions in County Funding	Actions That are Not Recommended at This Time
<ol style="list-style-type: none"> 1. Eliminate all Oconomowoc to Milwaukee bus service and reduce service at the Goerke's Corners public transit station on Route No. 3—Oconomowoc to Milwaukee via STH 16—and Route No. 4—Oconomowoc to Milwaukee via IH 94 2. Eliminate weekend and holiday bus service between Waukesha and Milwaukee on Route No. 1—Waukesha to Milwaukee via Greenfield Avenue—and Route No. 2—Waukesha to Milwaukee via Blue Mound Road 3. Reduce weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center on Route No. 2—Waukesha to Milwaukee via Blue Mound Road 4. Eliminate weekday late evening bus service between Waukesha and Milwaukee on Route No. 1—Waukesha to Milwaukee via Greenfield Avenue 	<ol style="list-style-type: none"> 1. Increase passenger fares by 5 to 10 percent for bus service operated by Wisconsin Coach Lines, Inc. 	<ol style="list-style-type: none"> 1. Eliminate all or most weekday midday service on Route No. 1—Waukesha to Milwaukee via Greenfield Avenue—and Route No. 2—Waukesha to Milwaukee via Blue Mound Road 2. Increase passenger fares on bus service operated by the Milwaukee County Transit System

Source: SEWRPC.

The second recommended action listed in Table 45 calls for the elimination of all weekend and holiday bus service between the City of Waukesha and downtown Milwaukee as proposed under Option No. 2 for the Waukesha-to-Milwaukee bus routes. This action would also eliminate bus service that was used by only a few persons in 1987, and, consequently, had ridership and financial performance characteristics that were substantially lower than those observed on the same route on an average weekday. Consequently, this action would affect a limited number of persons while contributing significantly to the overall improvement of the ridership and financial performance of these routes.

The third and fourth actions listed in Table 45 call for the elimination of unproductive segments of the weekday service provided over Routes No. 1 and 2 as proposed under Option No. 3 for the Waukesha-to-Milwaukee bus routes. The

Table 46

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM WITH THE PRELIMINARY STAFF-RECOMMENDED SERVICE CHANGES: 1988

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative Based on Continuation of Past Trends	Increment for Eliminating Oconomowoc to Milwaukee Service	Increment for Eliminating Weekend and Holiday Service	Increment for Reducing Service to Brookfield Square and Eliminating Late Evening Service	Preliminary Recommended Transit System
Revenue Passengers	254,600	242,000	-17,800	-8,900	-6,600	208,700
Total Vehicle Miles	429,960	431,708	-57,311	-25,038	-22,359	327,000
Operating Expenses	\$979,000	\$1,017,000	-\$124,200	-\$54,300	-\$48,500	\$790,000
Operating Revenues	\$334,900	\$ 315,700	-\$ 35,000	-\$12,300	-\$ 8,400	\$260,000
Percent of Operating Expenses Recovered Through Operating Revenues	34.2	31.0	--	--	--	32.9
Operating Deficit						
Federal Share	\$226,900	\$ 200,000	\$ --	\$ --	\$ --	\$200,000
State Share	367,050	381,400	-46,600	-20,400	-18,200	296,200
Local Share	50,150	119,900	-42,600	-21,600	-21,900	33,800
Total	\$644,100	\$ 701,300	-\$89,200	-\$42,000	-\$40,100	\$530,000

Source: SEWRPC.

bus runs which would be eliminated between the City of Waukesha and the Brookfield Square Shopping Center represent a recent attempt by Waukesha County and Wisconsin Coach Lines, Inc., to provide a local rather than express-type of transit service in the Blue Mound Road corridor, with these runs including additional stops at two of the major commercial shopping developments that have opened in recent years. Ridership on these bus runs was, however, extremely low. This could have been due to poor coordination of the bus service with the City of Waukesha's local bus system; to the fares of \$1.25 per one-way trip charged between the City of Waukesha and Brookfield Square, which may have been perceived by the public as high when compared to the base fare of \$0.60 per one-way trip for the City's fixed-route bus system; and to the fact that the Blue Mound Road corridor was not yet fully developed.

The elimination of weekday late evening bus service between Waukesha and Milwaukee would eliminate service that was used by few persons. The schedules for Routes No. 1 and 2 would still provide for a bus run departing downtown Milwaukee in the early evening to accommodate commuters who work late or miss an earlier departure out of Milwaukee.

The ridership on and financial performance of the transit system with these recommended service changes are presented in Table 46. The recommended service changes would reduce transit ridership by about 33,000 revenue passengers per year, or by about 14 percent from the projected ridership for the transit system with no service changes. The reduction in transit services would reduce

transit system operating system revenues by about \$56,000, or about 18 percent. The recommended service changes would, however, be expected to significantly reduce operating expenses for the transit system, as such expenses for 1988 would be reduced by about \$227,000, or about 22 percent. Based on these changes in operating expenses and revenues, the total operating deficit for the transit system would be reduced by about \$171,000, or about 24 percent. The local share of the operating deficit would be reduced by about \$86,000, or about 72 percent. The local operating deficit of about \$34,000 for the transit system with the recommended service changes would be about \$7,000, or about 18 percent, below the County's funding level of about \$41,000 set for the transit system by County Board action.

Table 45 presents actions which could be considered to achieve additional county funding reductions for calendar year 1988. These actions include increasing passenger fares by 5 to 10 percent for the transit service provided over the bus routes operated by Wisconsin Coach Lines, Inc., during 1987. Fares on these bus routes were last increased by Waukesha County in January 1986. Such fare increases would not be necessary, however, to achieve the reductions in county funding necessary to meet the 1988 budget requirements.

Finally, Table 45 also lists service and fare changes which were not recommended to be taken by Waukesha County at this time, including the elimination of most or all of the weekday midday service. Although the weekday midday service provided over Routes No. 1 and 2 does not have the ridership, or financial performance, of service provided during the weekday peak periods, the operation of these routes during the midday off-peak period permits use by persons with working hours different from the typical 8:00 a.m. to 5:00 p.m. hours, such as persons employed in retail shops at stores in downtown Milwaukee, at the Brookfield Square Shopping Center, or in the Blue Mound Road corridor. The provision of service over these routes at this time also permits use by persons making trips for shopping or other purposes between the commercial and business establishments in these areas. Consequently, as long as further reductions in the local tax levy are not required, midday services on Routes No. 1 and 2 should not be reduced beyond what has been recommended above.

A second action which was not recommended for 1988 was increasing passenger fares on the bus routes operated by the Milwaukee County Transit System. This is primarily due to the fact that fares on these bus routes were increased by \$0.20 per one-way trip in January 1987. As long as additional reductions in county funding levels are not required for 1988, the County should consider maintaining its past policy of increasing passenger fares on these routes only when the Milwaukee County Transit System implements changes in its fare structure.

REACTION TO PRELIMINARY STAFF RECOMMENDATIONS FOR THE 1988 TRANSIT SYSTEM BUDGET

Members of the Waukesha County Mass Transit Advisory Committee met on August 24, 1987, to consider the alternative and preliminary staff-recommended service changes for calendar year 1988 as presented in the preceding sections. At this meeting, committee members expressed concern that the service changes

recommended by Commission staff to keep costs within county budgetary limits for 1988 would require a significant reduction in transit service--from 430,000 total vehicle miles of service in 1987 to 327,000 in 1988, a reduction of about 25 percent. This concern was expressed even though the services proposed to be reduced were clearly less cost-effective than the services proposed to be retained, since the proposed 25 percent reduction in service was expected to result in only about a 15 percent reduction in system ridership. Some committee members also expressed concern that the proposed reduced level of service would not meet the need for transit service under inevitably higher motor fuel prices.

To address these concerns, four additional alternatives for the Waukesha County transit system were proposed by the Advisory Committee. Under the first alternative, Waukesha County would purchase a fleet of buses and lease them back to a private transit operator for use in providing transit service over contracted bus routes, with the lease revenues generated used to retain the existing level of transit service within a county operating subsidy of approximately \$41,200 in 1988.

Under the second alternative, Waukesha County would discontinue the extension of Route No. 10 from the Milwaukee-Waukesha County line to the Brookfield Square Shopping Center and modify the service provided over Routes No. 1 and 2 in 1987 to serve passengers using Route No. 10. Also under this alternative, service would be reduced between the City of Oconomowoc and the Milwaukee central business district over Route No. 3. The expected savings in operating expenses resulting from these actions would enable the system to operate within its 1988 operating subsidy limit.

Under the third alternative, the reductions in Oconomowoc-to-Milwaukee service over Routes No. 3 and 4, and in weekend and holiday service over Routes No. 1 and 2, would be retained as recommended by Commission staff. In addition, the weekday bus service currently operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district would be converted from the existing local-express bus service to a high-speed, nonstop rapid transit service. The first two alternatives were proposed by representatives of the private transit company currently under contract with Waukesha County, while the third alternative was proposed by the representative of the City of Waukesha.

The fourth alternative proposed was that rather than reducing service, the County consider competitive procurement of transit services rather than continued re-negotiation with existing transit operators. This option had been rejected earlier in the study owing to county staff time limitations. Competitive procurement, however, had the potential to permit all existing transit service to be retained in 1988 because of the potential reduction in service operating costs and the additional federal and state funds for which Waukesha County would qualify.

Of the four new alternatives, the County Board Highway and Transportation Committee and the Advisory Committee concluded that two were not feasible or appropriate for implementation in 1988: the bus purchase alternative and the alternative entailing elimination of Routes No. 3 and 4, and substantial modification of Routes No. 1 and 2 between the City of Waukesha and the City of

Milwaukee central business district. The option of bus purchase was rejected because the lead time required for the County to acquire a fleet of buses using federal funds would make such buses not available for lease to the contract transit operator until 1990 or 1991. The alternative calling for elimination of service on Routes No. 3 and 4, elimination of weekend service on Routes No. 1 and 2, and a change in weekday service on Routes No. 1 and 2 from local-express service to nonstop rapid transit service was also rejected, as this alternative proposed more extensive service reductions and changes than those recommended by Commission staff. The remaining two new alternatives--competitive procurement and the replacement of service provided by Route No. 10--were concluded to be both feasible and appropriate for implementation in 1988, and the Commission staff was directed to evaluate those two alternatives. The following sections of this chapter describe and evaluate these two alternatives.

Replacement of Service Provided Over Route No. 10

Under this alternative, the extension of Milwaukee County Transit System Route No. 10 from the Waukesha-Milwaukee County line to the Brookfield Square Shopping Center and Executive Drive office park area would be eliminated. Modifications would be made to Routes No. 1 and 2--as operated by Wisconsin Coach Lines, Inc., between the City of Waukesha and the Milwaukee central business district--to create a new branch of Route No. 2 which would replace the service provided within Waukesha County over Route No. 10. Also, service over Route No. 3 would be reduced under this alternative by eliminating one round trip each weekday between the Goerke's Corners public transit station and the City of Oconomowoc.

In order to estimate the potential impacts of this service proposal on the transit system passengers using the Waukesha County segment of Route No. 10 in 1987, the Commission staff conducted a special on-board bus survey on Route No. 10 on September 3, 1987. Under the survey, all passengers using the segment of Route No. 10 operated within Waukesha County were interviewed and asked four questions: 1) the origin or destination of the their trip in Milwaukee County; 2) whether the trip involved a transfer to or from another bus route and, if so, what route; 3) the purpose of the trip; and 4) their county of residence. The survey findings are summarized in Tables 47 through 52, and on Map 20. This information was subsequently provided to Wisconsin Coach Lines, Inc.--whose representatives on the Committee had proposed the service change for Route No. 10--and was used by the company in the development of a more detailed service proposal.

In summary, the survey found that of the 246 passengers on the Waukesha County segment of Route No. 10 on the day of the survey, 74 percent were residents of Milwaukee County and 26 percent were residents of Waukesha County. Most of the trips made by passengers on the Waukesha County segment of the route--43 percent--were for work purposes. Trips for shopping purposes constituted another 23 percent of the trips made on the route, with the remaining 34 percent of the trips being made for other purposes.

The survey found that 67 percent of the passengers using the Waukesha County segment of the route, or approximately two-thirds, had boarding or debarking locations east of N. 35th Street within Milwaukee County. This information

Table 47

**TRANSIT RIDERSHIP ON THE WAUKESHA COUNTY SEGMENT OF
MCTS ROUTE NO. 10 BY RUN: THURSDAY, SEPTEMBER 3, 1987**

Westbound Runs		Eastbound Runs	
Depart W. Underwood Parkway	Number of Passengers on Bus Departing W. Underwood Parkway ^a	Depart Brookfield Square Shopping Center ^b	Number of Passengers on Bus Arriving W. Underwood Parkway ^c
7:26 a.m.	20	7:40 a.m.	3
7:44	7	8:00	2
8:20	6	8:35	1
8:51	7	9:06	0
9:22	2	9:38	0
9:53	2	10:06	6
10:25	11	10:39	1
11:00	7	11:11	3
11:32	3	11:43	1
12:05 p.m.	8	12:16 p.m.	1
12:37	5	12:48	4
1:09	5	1:20	3
1:42	4	1:55	8
2:16	4	2:29	5
2:52	7	3:03	6
3:23	5	3:35	1
3:51	21	4:03	14
4:23	9	4:34	16
4:50	4	5:01	12
5:13	4	5:29	6
5:37	4	5:56	8
Total	145	Total	101
Total Both Directions			246

^aIncludes passengers boarding west of W. Underwood Parkway.

^bPrior to 10:00 a.m., buses depart from Executive Drive at time shown. After 10:00 p.m., buses depart from the Boston Store stop at time shown.

^cIncludes passengers deboarding west of W. Underwood Parkway.

Source: SEWRPC.

indicates that any bus service that is to replace the service subsidized by Waukesha County in 1987 should be provided over the entire length of Route No. 10 within both Waukesha and Milwaukee Counties if a comparable service area is to be maintained.

The survey also found that approximately 45 percent of the trips made on the Waukesha County segment of Route No. 10 involved a transfer from another Milwaukee County Transit System bus route, with transfers occurring between virtually every regular local bus route intersecting with Route No. 10. The high percentage of trips involving a transfer between Route No. 10 and another Milwaukee County Transit System bus route can be explained in part by the grid

Table 48

**LOCATION OF BOARDING AND DEBOARDING ACTIVITY FOR PASSENGERS USING THE
WAUKESHA COUNTY SEGMENT OF MCTS ROUTE NO. 10: THURSDAY, SEPTEMBER 3, 1987**

Route Segment	Westbound				Eastbound				Both Directions			
									Total			
	Nontransfer	Transfer	Total		Nontransfer	Transfer	Total		Nontransfer	Transfer	Total	
			Number	Percent			Number	Percent			Number	Percent
	Boardings				Deboardings							
Milwaukee County N. Jackson Street- N. 12th Street	17	18	35	28	16	23	39	42	33	41	74	34
N. 13th Street- N. 35th Street	31	18	49	39	11	12	23	24	42	30	72	33
N. 37th Street- N. Glenview Avenue	17	14	31	24	5	11	16	17	22	25	47	21
County Hospital- W. Underwood Parkway	7	3	10	8	8	2	10	11	15	5	20	9
Waukesha County N. Underwood Parkway- Brookfield Square Shopping Center-Executive Drive	1	--	1	1	6	--	6	6	7	--	7	3
Total	73	53	126	100	46	48	94	100	119	101	220	100
	Deboardings				Boardings							
Waukesha County W. A. Krueger Company- Brookfield Square Shopping Center-Executive Drive	73	53	126	100	46	48	94	100	119	101	220	100

Source: SEWRPC.

Table 49

**PERCENTAGE DISTRIBUTION OF
TRIPS ON THE WAUKESHA COUNTY
SEGMENT OF MCTS ROUTE NO. 10
INVOLVING A TRANSFER FROM
ANOTHER BUS ROUTE: THURSDAY,
SEPTEMBER 3, 1987**

MCTS Route Transferred To or From ^a	Percent of Trips Involving Transfer	Percent of Total Trips
11	2	1
12	3	1
14	4	2
15	5	2
18	2	1
19	6	3
20	2	1
23	4	2
27	8	4
28	3	1
30	22	10
31	2	1
35	7	4
67	11	5
71	2	1
76	14	6
80	2	1
Subtotal	100	45
Did Not Transfer	--	55
Total	--	100

^aNo transfers were recorded between Route No. 10 and Wisconsin Coach Lines, Inc., suburban bus routes.

Source: SEWRPC.

Table 50

**PERCENTAGE DISTRIBUTION OF TRIP
ENDS IN MILWAUKEE COUNTY FOR
PASSENGERS USING THE WAUKESHA
COUNTY SEGMENT OF MCTS ROUTE
NO. 10 BY CITY OF MILWAUKEE
AREA OR SUBURB: THURSDAY,
SEPTEMBER 3, 1987**

Analysis Zone Number on Map 20	City of Milwaukee Area or Suburb	Percentage of Total Trip Ends
1	Near West Side	25
2	Wauwatosa	17
3	Central Business District . . .	14
4	East Side	8
5	Near South Side	8
6	Near North Side	6
7	Upper West Side	6
8	Northwest Side	4
9	West Allis	3
10	Far North Side	2
11	Far Northwest Side	2
12	Southeast Side	1
13	Southwest Side	1
14	Greenfield/Greendale	1
15	Far West Side	1
16	Shorewood	1
Total		100

Source: SEWRPC.

Table 51

**PERCENTAGE DISTRIBUTION OF TRIPS ON THE WAUKESHA COUNTY SEGMENT OF MCTS
ROUTE NO. 10 BY TRIP PURPOSE AND TIME OF DAY: THURSDAY, SEPTEMBER 3, 1987**

Trip Purpose	Time Period			
	A.M. Peak (6:00-9:00 a.m.)	Midday (9:00 a.m.-3:00 p.m.)	P.M. Peak (3:00-6:00 p.m.)	Total Daily
Work	15	13	15	43
Shopping	1	16	6	23
Other ^a	2	10	22	34
Total	18	39	43	100

^aMostly school and social/recreational.

Source: SEWRPC.

system of routes operated by the Milwaukee County Transit System. With this grid routing system, other local routes of the Milwaukee County Transit System essentially act as feeder/distributor routes for the passengers using Route No. 10. So as not to discourage making trips which require a transfer, the fare structure for the Milwaukee County Transit System provides for free transfers between all local bus routes of the transit system, including Route No. 10. Trips made on the Waukesha County segment of Route No. 10 thus cost the same regardless of whether or not they involve a transfer from another Milwaukee County Transit System local bus route.

Table 52

PERCENTAGE DISTRIBUTION OF PASSENGERS ON THE WAUKESHA COUNTY SEGMENT OF MCTS ROUTE NO. 10 BY COUNTY OF RESIDENCE: THURSDAY, SEPTEMBER 3, 1987

County of Residence	Percent of Total Passengers
Milwaukee	74
Waukesha	26
Total	100

Source: SEWRPC.

Wisconsin Coach Lines suggested modifying the bus service provided over Routes No. 1 and 2 in 1987, which operated between the City of Waukesha and downtown Milwaukee, to replace Route No. 10, primarily by shifting bus runs that operated over IH 94 and W. Greenfield Avenue between downtown Milwaukee and the Brookfield Square Shopping Center to operation over E. and W. Wells Street, and E. and W. Wisconsin Avenue and W. Blue Mound Road between those points. This new branch of Route No. 2 would follow essentially the same routing as that used in 1987 in the operation of Route No. 10. Some nonstop express service would also be provided over some runs on weekdays and on all runs on Saturday using IH 94 instead of W. Blue Mound Road east of N. 84th Street. West of the Brookfield Square Shopping Center, no routing changes would be made to Route No. 1, and only minor changes would be made to Route No. 2 to serve The Crossroads Office Center currently under development near the intersection of IH 94 and USH 18. Through service between downtown Waukesha and downtown Milwaukee would be provided over the new branch of Route No. 2. The existing routing of Route No. 10 is shown on Map 21. The proposed routing modifications for Route No. 2 are shown on Map 22.

As shown in Table 53, the 21 eastbound and 21 westbound bus trips that were operated by the Milwaukee County Transit System over the Waukesha County segment of Route No. 10 each weekday in 1987 would be replaced in 1988 with six westbound and five eastbound trips operated by Wisconsin Coach Lines, Inc., over the new branch for Route No. 2. The 16 westbound and 16 eastbound bus trips operated on Saturdays during 1987 over the Waukesha County segment of Route No. 10 would be replaced in 1988 with four westbound and four eastbound bus trips operated over the new branch of Route No. 2. As can be seen in Table 54, the provision of service over this branch of Route No. 2 to replace the service provided in 1987 between downtown Milwaukee and the Brookfield Square Shopping Center over Route No. 10 would be accomplished primarily by reducing the number of scheduled bus trips between these points over W. Greenfield Avenue. With the proposed service modifications, the number of scheduled bus trips operated over W. Greenfield Avenue between the Brookfield Square Shopping Center and downtown Milwaukee would be reduced from 24 one-way trips each weekday and 12 one-way trips on Saturdays to 16 one-way trips on weekdays and eight one-way trips on Saturdays. However, under the service proposal, the total number of one-way bus trips operated between these points over Routes

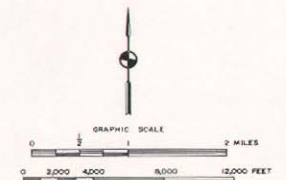
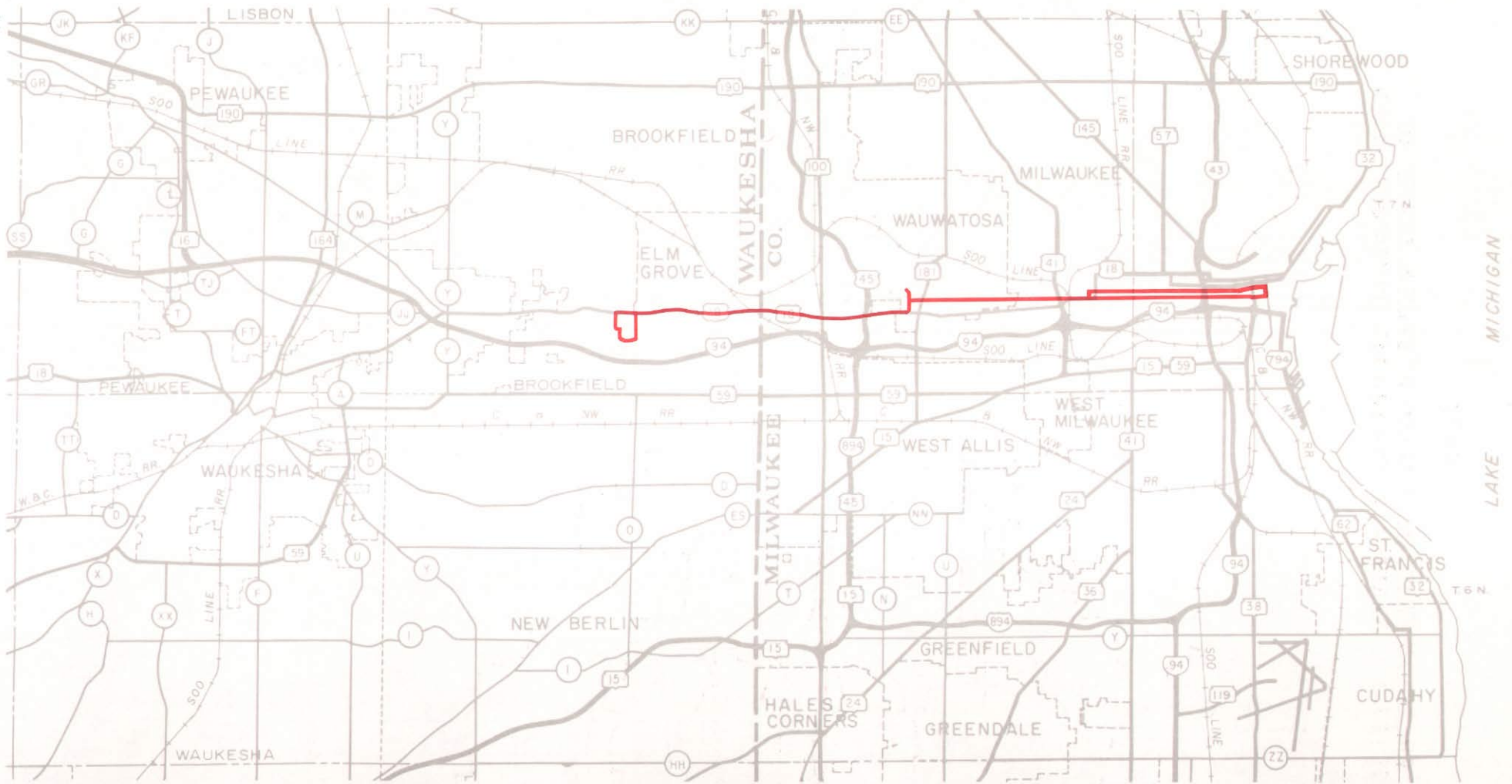
**AREAS IDENTIFIED IN ANALYSIS OF SPECIAL SURVEY OF
ROUTE NO. 10 PASSENGERS CONDUCTED SEPTEMBER 3, 1987**



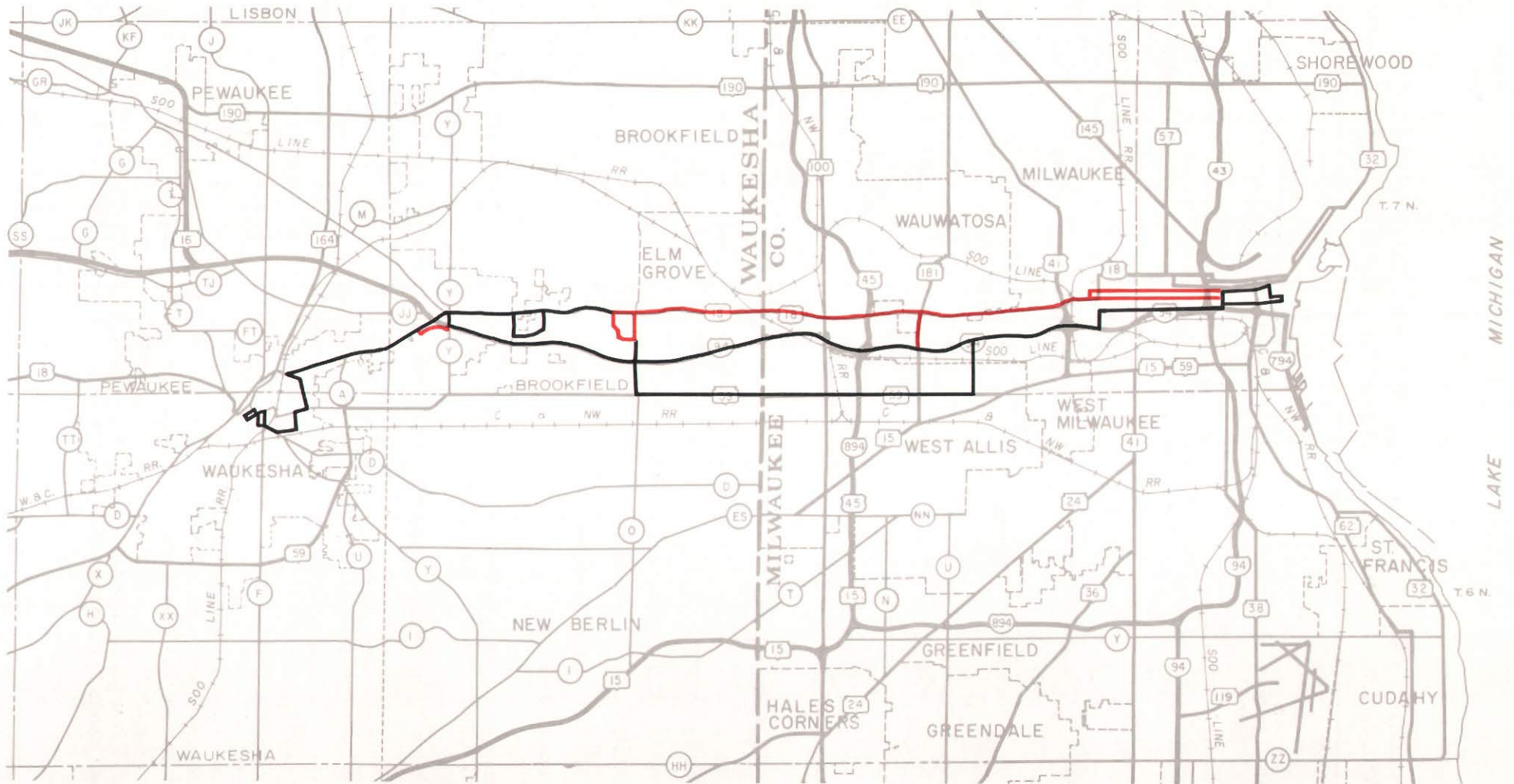
Map 21

EXISTING ROUTING OF WISCONSIN AVENUE BRANCH OF ROUTE NO. 10

138



PROPOSED ROUTING OF ROUTE NO. 2 WITH NEW BRANCH TO REPLACE ROUTE NO. 10



LEGEND

— EXISTING PORTION OF ROUTE
— PROPOSED NEW PORTION OF ROUTE

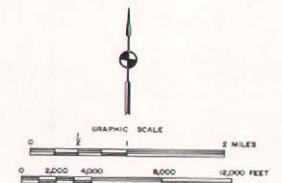


Table 53

COMPARISON OF EXISTING SCHEDULED BUS SERVICE OVER ROUTE NO. 10 AND PROPOSED REPLACEMENT SERVICE OVER ROUTE NO. 2

Existing Service Provided Over Route No. 10 ^a				Proposed Service to Be Provided Over Route No. 2 to Replace Service Over Route No. 10			
Weekdays		Saturdays		Weekdays		Saturdays	
Westbound Departure Times ^b	Eastbound Departure Times ^c	Westbound Departure Times ^b	Eastbound Departure Times ^c	Westbound Departure Times ^d	Eastbound Departure Times ^c	Westbound Departure Times ^d	Eastbound Departure Times ^c
7:26 a.m.	7:40 a.m.	8:40 a.m.	8:50 a.m.	7:15 a.m.	10:22 a.m.	9:32 a.m.	9:22 a.m.
7:44	8:00	9:01	9:27	7:55	1:22 p.m.	11:47	11:52
8:20	8:35	9:48	10:04	8:20	4:09	1:03 p.m.	3:32 p.m.
8:51	9:06	10:28	10:42	10:35	4:39	5:44	5:12
9:22	9:38	11:05	11:18	11:55	5:39	--	--
9:53	10:06	11:25	11:50	3:56 p.m.	--	--	--
10:25	10:39	12:03 p.m.	12:22 p.m.	--	--	--	--
11:00	11:11	12:41	12:54	--	--	--	--
11:32	11:43	1:13	1:26	--	--	--	--
12:05 p.m.	12:16 p.m.	1:45	1:58	--	--	--	--
12:37	12:48	2:17	2:29	--	--	--	--
1:09	1:20	2:49	3:01	--	--	--	--
1:42	1:55	3:20	3:32	--	--	--	--
2:16	2:29	3:52	4:03	--	--	--	--
2:52	3:03	4:23	4:40	--	--	--	--
3:23	3:35	4:54	5:09	--	--	--	--
3:51	4:03	--	--	--	--	--	--
4:23	4:34	--	--	--	--	--	--
4:50	5:01	--	--	--	--	--	--
5:13	5:29	--	--	--	--	--	--
5:37	5:56	--	--	--	--	--	--

^aBased on schedules in effect for fall 1987.

^bDeparting time from W. Underwood Parkway and W. Blue Mound Road.

^cDeparting time from Brookfield Square Shopping Center.

^dDeparting time from N. 124th Street and W. Blue Mound Road.

Source: Wisconsin Coach Lines, Inc., and SEWRPC.

No. 1 and 2 would be increased slightly, from 31 to 33 bus trips on weekdays and from 12 to 16 bus trips on Saturdays.

The base adult cash fare for passengers using the Waukesha County segment of Route No. 10 in 1987 was \$1.25 per one-way trip. Under the private operator's service proposal, Wisconsin Coach Lines would retain this fare for passengers using the service provided over the new branch of Route No. 2. Other elements of the Wisconsin Coach Lines fare structure for Routes No. 1 and 2 would also be in effect, including the half-fare program for elderly and handicapped persons and for children ages five through 12, as well as discounts to adult passengers who purchase books of 10 commuter tickets. Currently, books of commuter tickets can be purchased at a 10 percent discount from the regular adult cash fare. In comparison, the Milwaukee County Transit System offers weekly passes or strips of 10 full-fare adult tickets at a discount of approximately 20 percent. Passengers who would need to transfer between routes of the Milwaukee County Transit System and the replacement route operated by Wisconsin Coach Lines could purchase strips of 10 full-fare adult tickets for

Table 54

COMPARISON OF THE ROUTING OF EXISTING AND PROPOSED SCHEDULED BUS TRIPS BETWEEN THE BROOKFIELD SQUARE SHOPPING CENTER AND THE MILWAUKEE CENTRAL BUSINESS DISTRICT OVER ROUTES NO. 1 AND 2

Primary Routing Used Between Brookfield Square Shopping Center and Downtown Milwaukee	Number of Scheduled Bus Trips over Routes No. 1 and 2 ^a											
	Existing ^b						Proposed					
	Weekdays		Saturdays		Sundays and Holidays		Weekdays		Saturdays		Sundays and Holidays	
	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound	Eastbound	Westbound
Via IH 94	4	3	--	--	--	--	3	3	--	--	--	--
Via W. Greenfield Avenue	12	12	6	6	4	4	9	7	4	4	4	4
Via W. Blue Mound Road	--	--	--	--	--	--	5	6	4	4	--	--
Total	16	15	6	6	4	4	17	16	8	8	4	4

^aRepresents all bus trips operated over Routes No. 1 and 2 east of the Brookfield Square Shopping Center, including bus trips that do not stop at the shopping center.

^bBased on schedules in effect for fall 1987.

Source: Wisconsin Coach Lines, Inc., and SEWRPC.

Milwaukee County Transit System routes for \$4.50, or \$0.45 per one-way trip, if they chose to also purchase books of commuter tickets for the Wisconsin Coach Lines service. Therefore, the total cost of a trip by a passenger using both Milwaukee County Transit System routes and the services offered by Wisconsin Coach Lines would be approximately \$1.60 per one-way trip.

The impact of the private transit operator's service proposal on the ridership and financial performance of the Waukesha County transit system under the status quo alternative during calendar year 1988 is presented in Table 55. Based on the number and times of the bus trips proposed by the private operator to replace the service currently provided over Route No. 10, and the attendant fares which would be charged, it is estimated that only 28,100, or 40 percent, of the 72,100 revenue passengers projected to use Route No. 10 under the status quo alternative would continue to use the replacement service offered by the private operator over the new branch of Route No. 2. Consequently, about 44,000 revenue passengers, or 60 percent of the projected ridership for 1988 under the status quo alternative, would be lost from the Waukesha County transit system. In addition, about 6,400 revenue passengers would be lost owing to the service modifications made to Routes No. 1 and 2 in order to replace the service provided over Route No. 10; and about 2,600 revenue passengers would be lost owing to the reduction of bus service between the Goerke's Corners public transit station and the City of Oconomowoc over Route No. 3--a total loss of ridership from existing Wisconsin Coach Lines, Inc., bus services of about 9,000 revenue passengers. This service proposal would thus result in a net loss of ridership on the transit system during 1988 of about 53,000 revenue passengers, or about 22 percent.

Operating revenues would also decline significantly--by about \$43,900, or about 14 percent. As a result of the magnitude of the service changes under this proposal, which would include the elimination of all expenses for the operation of Route No. 10 plus the elimination of expenses for some of the service provided over Route No. 3 in 1987, there would be a substantial reduction in total operating expenses of approximately \$192,100, or about 19 percent. Based on these changes in operating expenses and revenues, the total deficit for the transit system could be expected to be reduced by about \$148,200, or by about 21 percent; and the local share of the operating deficit could be expected to be reduced by about \$76,200, or about 64 percent. County funds of approximately \$43,800 would be required to operate the transit system during 1988 under this proposal, or about \$2,600 over the 1988 county budget for the transit system of approximately \$41,200.

Option to Competitively Procure Public Transit Services for Waukesha County

Under this option, Waukesha County would award service contracts for its transit routes through a process involving competitive bidding by potential contractors. By awarding transit service contracts to private transit operators, Waukesha County would be eligible to apply for federal capital assistance under the federal Urban Mass Transportation Administration's capital-cost-of-contracting program. These funds could then be used to cover 80 percent of the depreciation and capital overhead expenses charged by the private operator in providing the service. Competitively awarding service contracts would also enable Waukesha County to receive state transit operating assistance to cover up to 37.5 percent of the depreciation and profit charged by the private operator under the contract. The additional federal and state funds available to Waukesha County as a result of following a competitive procurement process

Table 55

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER PRIVATE OPERATOR'S PROPOSAL TO ELIMINATE ROUTE NO. 10

Operating Characteristic	1987 Estimated	1988 Projected		
		Status Quo Alternative Based on a Continuation of Past Trends	Eliminate Route No. 10 and Modify Routes No. 1, 2, and 3	
			Incremental Change from Status Quo Alternative	Systemwide Ridership and Performance with Proposed Changes
Annual Revenue Passengers	254,600	242,000	-53,000	189,000
Total Annual Vehicle Miles	429,960	431,708	-48,801	382,907
Operating Expenses Annual	\$979,000	\$1,017,000	\$-192,100	\$824,900
Per Revenue Passenger	3.85	4.20	3.62	4.36
Operating Revenue Per Passenger	\$1.31	\$1.31	\$0.83	\$1.43
Annual Passenger Revenue	\$333,400	\$ 314,200	\$ -43,900	\$270,300
Other Revenue	1,500	1,500	--	1,500
Total Revenue	\$334,900	\$ 315,700	\$ 43,900	\$271,800
Percent of Expenses Recovered Through Operating Revenues	34.2	31.0	22.9	32.9
Operating Deficit Federal Share	\$226,900	\$ 200,000	\$ --	\$200,000
State Share	367,050	381,400	-72,050	309,350
Local Share	50,150	119,900	-76,150	43,750
Total	\$644,100	\$ 701,300	\$-148,200	\$553,100
Per Revenue Passenger	\$2.53	\$2.90	\$2.80	\$2.93

Source: SEWRPC.

for public transit services could reduce the county funds needed to subsidize the operation of the transit system in 1988. This reduction could bring the subsidy to, or below, the the 1988 budget limit of \$41,200. The additional federal and state funds could thus preclude the need to reduce transit service.

Under this option it was assumed that Waukesha County would retain existing service levels on all six of the bus routes constituting the transit system during 1987, and would award the service contracts for the operation of five of the six bus routes--including Routes No. 1, 2, 3, 4, and 79--during 1988 through the competitive procurement process. Waukesha County would award the service contracts for these routes to one or more contractors based upon the qualifications of each prospective contractor and the contractor's bid cost to provide the service. The contract for the remaining county bus route--Route No. 10--would be re-negotiated during 1988 with the management firm for the Milwaukee County Transit System, Milwaukee Transport Services, Inc.

In contracting for transit services in this manner, Waukesha County would require contractors to assume some risk in providing the contract services. In this respect, Waukesha County would require prospective contractors to agree to provide the transit services for no more than the amounts of federal, state, and county funds available to Waukesha County for the contracted bus routes. Such funds would include federal transit operating and capital assistance funds available through the federal Urban Mass Transportation Administration's Section 9 formula grant program; state transit operating assistance funds available through the state urban mass transit operating assistance program; and Waukesha County funds budgeted for transit assistance. Waukesha County would allow contractors to retain all passenger and other revenues

generated through the operation of the contract bus routes. Under this arrangement, the contractor would assume some risk for financial loss in the operation of the contract service should ridership and passenger revenues fall below those projected at the time agreement on the contract was reached. Under this arrangement, the contractor could also realize financial gain, or profit, if ridership and passenger revenues exceed those projected for the contract service. The contractor thus has incentives under this arrangement to operate the transit service in a manner which will maintain the existing level of ridership and possibly promote increases in ridership for the County.

The ridership and financial performance of the Waukesha County transit system, assuming the competitive procurement of transit services, is shown in Table 56. Two scenarios for competitively procuring the bus service for Routes No. 1, 2, 3, 4, and 79 are presented in this table. Under the first scenario, the competitive bid process would result in service contracts for all five bus routes being awarded to a private transit operator. Under the second option, only the service contracts for Routes No. 1, 2, 3, and 4 would be awarded to a private transit operator, with the service contract for Route No. 79 being competitively awarded to, or re-negotiated with, the management firm for the Milwaukee County Transit System. The service contract for Route No. 10 would be re-negotiated with the management firm for the Milwaukee County Transit System under both scenarios. For the purpose of estimating the additional federal and state aids that would be available to Waukesha County for the routes operated by a private operator, it was also assumed that Wisconsin Coach Lines would be the private transit operator awarded the service contracts for the aforementioned routes under either scenario.

As can be seen in Table 56, levels of transit ridership and operating revenues should be the same under either scenario as that projected for calendar year 1988 under the status quo alternative. This assumes that the transit operators awarded the service contracts would operate service levels and charge fares that are comparable to those operated and charged by the operators for each route in 1987. If Wisconsin Coach Lines were to be awarded the service contract for Route No. 79, as well as for Routes No. 1, 2, 3, and 4 as assumed under the first scenario, total operating expenses for the transit system would be expected to increase by about \$34,000, or about 3 percent. This increase would result from a combination of an increase in the total vehicle miles operated over Route No. 79 due to increased deadhead miles, and a slightly higher cost per vehicle mile for operation of the route by Wisconsin Coach Lines instead of the Milwaukee County Transit System. Along with the higher operating costs of the transit system under this scenario, there would be a corresponding increase in the transit system operating deficit. Under the second scenario, which assumes that the existing operators of the transit routes would continue to operate the same routes during 1988, there would be no change in the transit system operating expenses or operating deficit.

The major benefits that would be realized by Waukesha County under this option would result from the increased levels of federal and state transit assistance available to offset the operating deficit for the privately operated transit service. By awarding the service contracts for all five bus routes to one or more private transit operators, Waukesha County could receive an additional \$70,400 in federal Urban Mass Transportation Administration Section 9 capital assistance funds, plus \$61,800 in additional state transit operating assistance funds--a total of \$132,200 in additional federal and state aid--to offset depreciation and capital expenses charged by the private operators for the contract services. State transit operating assistance funds would also be

available to offset 37.5 percent, or \$12,600, of the total increase in operating expenses of \$33,700 under this scenario. As a result of these additional federal and state transit assistance funds, the county funds required to subsidize the operation of the transit system during 1988 would be reduced by about \$111,100, or by about 93 percent--from \$119,900 to \$8,800.

If Waukesha County were to award the service contracts for only the operation of Routes No. 1, 2, 3, and 4 to a private transit operator and continue to contract with the management firm for the Milwaukee County Transit System for the operation of Route No. 79, the amounts of additional federal and state transit assistance potentially available to Waukesha County would be somewhat less. This is because, as previously noted, the costs for the services provided by the Milwaukee County Transit System, which is a publicly owned and operated transit system, could not be considered for additional federal or state transit assistance. Under the second scenario, Waukesha County could receive an additional \$56,000 in federal transit capital assistance funds, plus an additional \$49,200 in state transit operating assistance funds--for a total of \$105,200 in additional federal and state aids--to offset depreciation and other eligible capital expenses charged by the private operator in providing the contract services. These additional funds would enable Waukesha County to reduce its share of the funding needed to subsidize the operation of the transit system by about 88 percent--from \$119,900 to about \$14,700.

This analysis indicated that the amount of additional federal and state transit assistance funds that would be available to Waukesha County if it competitively procured transit services on Routes No. 1, 2, 3, 4, and 79 would be more than sufficient for it to reduce the projected county share of the operating deficit to levels substantially below the \$41,200 required under the 1988 transit system operating budget. In considering the results of this analysis, however, it should be noted that the calculation of additional federal and state transit assistance funds potentially available to Waukesha County by competitively procuring transit services was based upon the projected 1988 operating expenses for the transit company under contract with Waukesha County in 1987--Wisconsin Coach Lines, Inc. The calculation of county subsidy levels for the transit system also assumed that Wisconsin Coach Lines would charge Waukesha County at a lower rate than that which is used to calculate the state transit operating assistance funds for the contract services. In this respect, the rate charged to Waukesha County would exclude the transit operator's expenses for depreciation and profit, as it did during 1987, while the rate used to calculate the transit system operating expenses upon which state transit operating assistance funds would be based would include the private operator's operating expenses.

Reaction of Waukesha County Highway and Transportation Committee to Additional Service Options Proposed for the 1988 Transit System Budget

On September 9, 1987, the Waukesha County Highway and Transportation Committee was briefed on the potential impacts on the 1988 transit system operating budget of the two additional service options proposed by the Advisory Committee. This briefing was necessary because Waukesha County had to inform the Milwaukee County Transit System by October 1, 1987, of any intentions not to renew its contracts for the operation of Routes No. 10 and 79. A decision as to whether or not the contracts for the operation of these routes would be renewed for 1988 was dependent upon the results of the analysis of the service proposal made by the private transit operator.

Table 56

**RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT
SYSTEM ASSUMING COMPETITIVE PROCUREMENT OF EXISTING TRANSIT SERVICES: 1988**

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative Based on a Continuation of Past Trends	Scenario No. 1: Award Service Contracts for Routes No. 1, 2, 3, 4, and 79 to a Private Transit Operator Through a Competitive Bid Process, and Retain Milwaukee Transport Services, Inc., as the Operator of Route No. 10		Scenario No. 2: Award Service Contracts for Routes No. 1, 2, 3, and 4 to a Private Transit Operator Through a Competitive Bid Process, and Retain Milwaukee Transport Services, Inc., as the Operator of Routes No. 10 and 79	
			Incremental Change from Status Quo Alternative	Systemwide Ridership and Performance with Proposed Changes	Incremental Change from Status Quo Alternative	Systemwide Ridership and Performance with Proposed Changes
Annual Revenue Passengers	254,600	\$0,242,000	--	242,000	--	242,000
Total Annual Vehicle Miles	429,960	431,700	13,000	445,000	--	431,700
Operating Expenses Annual	\$979,000	\$1,017,000	\$ 33,700	\$1,050,700	\$ --	\$1,017,000
Per Revenue Passenger	3.85	4.20	--	4.34	--	4.20
Operating Revenue Per Passenger	\$1.31	\$1.30	\$ --	\$1.30	\$ --	\$1.30
Annual Passenger Revenue	\$333,400	\$ 314,200	\$ --	\$ 314,200	\$ --	\$ 314,200
Other Revenue	1,500	1,500	--	1,500	--	1,500
Total Revenue	\$334,900	\$ 315,700	\$ --	\$ 315,700	\$ --	\$ 315,700
Percent of Expenses Recovered Through Operating Revenues	34.2	31.0	--	30.0	--	31.0
Operating Deficit Federal Share Attributable to Operating Assistance	\$226,900	\$ 200,000	\$ --	\$ 200,000	\$ --	\$ 200,000
Attributable to Capital Assistance ^a	--	--	70,400 ^b	70,400 ^b	56,000 ^c	56,000 ^c
Subtotal	\$226,900	\$ 200,000	\$ 70,400	\$ 270,400	\$ 56,000	\$ 256,000
State Share Attributable to Regular Operating Expenses	\$367,050	\$ 81,400	\$ 12,600	\$ 394,000	\$ --	\$ 381,400
Attributable to Expenses for Deprecia- tion and Profit Charged by Private Operators	--	--	61,800 ^d	61,800 ^d	49,200	49,200
Subtotal	\$367,050	\$ 381,400	\$ 74,400	\$ 455,800	\$ 49,200	\$ 430,600

Table 56 (continued)

Operating Characteristic	1987 Estimated	1988 Projected				
		Status Quo Alternative Based on a Continuation of Past Trends	Scenario No. 1: Award Service Contracts for Routes No. 1, 2, 3, 4, and 79 to a Private Transit Operator Through a Competitive Bid Process, and Retain Milwaukee Transport Services, Inc., as the Operator of Route No. 10		Scenario No. 2: Award Service Contracts for Routes No. 1, 2, 3, and 4 to a Private Transit Operator Through a Competitive Bid Process, and Retain Milwaukee Transport Services, Inc., as the Operator of Routes No. 10 and 79	
			Incremental Change from Status Quo Alternative	Systemwide Ridership and Performance with Proposed Changes	Incremental Change from Status Quo Alternative	Systemwide Ridership and Performance with Proposed Changes
Local Share	\$ 50,150	\$ 119,900	\$ -111,100	\$ 8,800	\$ -105,200	\$ 14,700
Total	\$644,100	\$ 701,300	\$ 33,700	\$ 735,000	\$ --	\$ 701,300
Per Revenue Passenger	\$2.53	\$2.90	\$ --	\$3.04	\$ --	\$2.90

^aUMTA formula Section 9 capital assistance funds made available under the UMTA capital-cost-of-contracting policy.

^bRepresents 80 percent of total capital depreciation and capital overhead expenses of \$88,000. Total depreciation expenses are based upon 412,600 total vehicle miles of service for Routes No. 1, 2, 3, 4, and 79, and depreciation expenses of \$0.17 per total vehicle mile for Wisconsin Coach Lines, Inc. Overhead capital expenses are based upon 2 percent of the total costs of the privately contracted service over Routes No. 1, 2, 3, 4, and 79 of \$894,100 projected for 1988 at current service levels.

^cRepresents 80 percent of total capital depreciation and overhead capital expenses of \$70,000. Total depreciation expenses are based upon 328,300 vehicle miles of service for Routes No. 1, 2, 3, and 4, and depreciation expenses of \$0.17 per mile for Wisconsin Coach Lines, Inc. Overhead capital expenses are based upon 2 percent of the total costs of the privately contracted service over Routes No. 1, 2, 3, and 4 of \$711,500 projected for 1988 at current service levels.

^dAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities and profit. These expenses would amount to \$0.17 and \$0.23 per vehicle mile of service, respectively, for Wisconsin Coach Lines, Inc. These expenses would be added to the base rate of approximately \$2.17 per mile, as estimated by Commission staff, which would be charged to Waukesha County for service provided by Wisconsin Coach Lines in 1988. A total unit cost of \$2.57 per vehicle mile would thus be used in calculating state aid to the service provided by the private operator.

Source: SEWRPC.

The Highway and Transportation Committee concurred with the Advisory Committee that the purchase of a fleet of buses by the County for lease back to the private operator would not be a viable option for 1988 because of the lead time required to procure vehicles under federal grant assistance programs. The Committee also expressed reservations about county ownership of vehicles, which would represent a significant increase in the level of commitment by the County to public transit services unless significant advantages to this action were demonstrated. It was also noted that with the new federal capital-cost-of-contracting policy, the major financial advantages of county bus ownership with respect to federal funding have been eliminated.

The Committee consequently focused its attention on the service proposals calling for the elimination of Route No. 10 and the competitive procurement of transit services. Based upon the information provided by Commission staff on these two service options, the Committee determined that for 1988 it should continue to contract for the operation of Route No. 10 from the Milwaukee County Transit System, and pursue the competitive procurement of transit service contracts on the remaining five county transit routes. While rejecting for 1988 the private operator's proposal to eliminate Route No. 10 and replace it with transit service provided over a new branch of Route No. 2, the Committee asked that this alternative continue to be considered as a long-term option for the transit system during the period 1989 through 1992, along with the alternative involving county purchase of a bus fleet. The Committee also decided that while it would be possible to retain existing service levels on all bus routes by competitively procuring transit services, some reduction in transit service between the City of Oconomowoc and downtown Milwaukee was warranted based upon the findings of the study concerning the effectiveness and efficiency of the bus service provided during 1987, as herein documented in the performance evaluation of the existing transit services and in the analysis of service options for the Oconomowoc-to-Milwaukee bus routes. Specifically, the Committee decided that one round trip between the City of Oconomowoc and the Goerke's Corners public transit station should be eliminated over Route No. 3--essentially as proposed under Option No. 1 for the Oconomowoc-to-Milwaukee bus services.

Based upon this decision, the Waukesha County Highway Department, with the assistance of the Commission staff, prepared a formal request for proposals (RFP) document to solicit competitive bids for the operation of Waukesha County transit service over Routes No. 1 through 4 and 79. The RFP document stipulated the tentative schedule of the procurement process to be followed by Waukesha County; the specific bid requirements that would need to be met by each potential transit service operator; the alternative transit service options for which Waukesha County was requesting service proposals; and the information that would be required to be submitted by each potential contract operator in order for its service proposal and bid to be considered by the County. The potential contractors were requested to submit bids for the operation of the five above-mentioned county bus routes under any of three service options, including the operation of only Routes No. 1 through 4, the operation of only Route No. 79, and the combined operation of all five bus routes. Prospective contractors were also allowed to make suggestions for the operation of the service proposed under each option which differed from that approved by the Waukesha County Highway and Transportation Committee.

Notices announcing the County's intent to competitively award the transit service contracts for the five county bus routes and the availability of the RFP document were published in two major newspapers serving Waukesha County--the Milwaukee Journal and the Waukesha Freeman--on October 16, 1987. In addition, copies of the notice were directly mailed to approximately 25 public and private transit operators that had been identified as potential contract operators. Copies of the RFP document were subsequently distributed to seven transit operators that had requested further information on the proposed contract transit services. All transit operators interested in the proposed contract services were also encouraged to attend a pre-proposal conference held on October 30, 1987, at which staff of the Waukesha County Highway Department and the Regional Planning Commission were available to respond to questions and comments concerning the alternative transit service options, the bid requirements, and any other information contained in the RFP document. Following the pre-bid conference, a copy of the County's responses to specific questions and comments raised by those attending the conference was distributed to all parties who received a copy of the RFP document.

A total of five proposals were submitted by transit operators to Waukesha County by 9:00 a.m., November 18, 1987--the deadline for proposal submittal. Of the five proposals submitted, two were for the first service option, which called for the operation of only Routes No. 1 through 4; and the remaining three proposals were for the second service option, the operation of only Route No. 79. However, after examination of the materials included in each proposal, two of the five proposals were rejected because they omitted some of the required information. The remaining three proposals were reviewed and evaluated by a special review panel comprising two members of the Waukesha County Highway and Transportation Committee, the Waukesha County Highway Commissioner, and a staff member of the Regional Planning Commission. This panel subsequently recommended that the service contracts for the five bus routes be awarded to the current transit operators--that is, Wisconsin Coach Lines, Inc., for Routes No. 1, 2, 3, and 4, and Milwaukee County Transport Services, Inc., for Route No. 79. The recommendation of the proposal review panel was approved by the Waukesha County Highway and Transportation Committee and by the Waukesha County Board of Supervisors in December 1987, and contracts submitted by the existing transit operators for these five bus routes were subsequently executed. The contract for Route No. 10, which was not awarded through a competitive bidding process, was re-negotiated for calendar year 1988.

The ridership and financial performance of the Waukesha County transit system for calendar year 1988, as estimated by the Commission staff, is presented in Table 57. Also presented in this table is pre-audit information on the actual performance of the Waukesha County transit system during 1987, based upon actual data received by the County from the transit operators through December 31, 1987. As can be seen in the table, the actual ridership and passenger revenues reported by Waukesha County for 1987 were 4 to 5 percent higher than estimated under the study for 1987 based upon six months of operation. This difference can be attributed to smaller declines in transit ridership during the last five months of 1987 than anticipated. Ridership on county transit services during this period declined by only about 1 percent from the ridership observed during the last five months of 1986. In comparison, ridership on

Table 57

RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: 1987 ACTUAL VS. 1988 PROJECTED

Operating Characteristic	1987 Unaudited	1988 Projected	
		Incremental Change from 1987	System Total
Annual Revenue Passengers	266,200	-10,000	256,100
Total Annual Vehicle Miles	429,527	-19,227	410,300
Operating Expenses			
Operations/Maintenance Element	\$993,050	\$123,960	\$1,117,010
Capital Equipment Element ^a	1,450	86,840	88,290
Total Annual	\$994,500	\$210,800	\$1,205,300
Per Revenue Passenger	\$3.74	\$-20.87	\$4.71
Operating Revenue			
Passenger Revenues Assumed			
Under Service Contracts	\$349,800	\$ -38,050	\$ 311,750
Additional Passenger Revenues			
from Increased Ridership/Fares ^b	0	28,150	28,150
Total Passenger Revenue	\$349,800	\$ -9,900	\$ 339,900
Other Revenue	1,200	0	1,200
Total Revenue	351,000	-9,900	341,100
Per Revenue Passenger	1.32	0.98	1.33
Percent of Expenses Recovered Through Operating Revenues	35.3	-4.7	28.3
Operating Deficit			
Federal Share			
Attributable to			
Operating Assistance	\$226,900	\$ -43,600	\$ 183,300
Attributable to			
Capital Assistance ^c	0	81,200	81,200
Subtotal	\$226,900	\$ 37,600	\$ 264,500
State Share			
Attributable to Regular			
Operating Expenses	\$372,400	\$ 46,500	\$ 418,900
Attributable to Expenses for			
Capital Equipment Charged			
by Private Operators ^d	0	31,200	31,100
Subtotal	\$372,400	\$ 77,700	\$ 450,000
Local Share			
Attributable to			
Waukesha County	\$ 44,200	\$ -28,900	\$ 16,000
Attributable to Private			
Transit Operator ^e	0	161,750	161,850
Other ^f	0	-28,150	-28,150
Subtotal	\$ 44,200	\$105,400	\$ 149,700
Total	\$643,500	\$220,700	\$ 864,200
Total Deficit per Revenue Passenger	\$2.42	\$-21.85	\$3.37

^aRepresents expenses for depreciation of capital equipment and facilities charged by both public and private transit operators under contracts with Waukesha County.

^bRepresents additional passenger revenues resulting from fare increases implemented during 1988 and from ridership projections for 1988 being higher than what were initially assumed by transit operators when service contracts were negotiated. Such additional revenues would accrue directly to the contract transit operators who have assumed the risk of increases or decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cUMTA formula Section 9 capital assistance funds made available under the UMTA capital-cost-of-contracting policy. Such funds should be available to pay 80 percent of the total capital depreciation and overhead expenses charged by Wisconsin Coach Lines, Inc., for operation of Routes No. 1, 2, 3, and 4. Total capital depreciation expenses charged by the operator are projected at \$83,000 during 1988. Total overhead capital expenses for the operator during 1988 are projected at \$18,500, representing 2 percent of the projected total contract expenses for Routes No. 1, 2, 3, and 4 of \$926,800.

^dAssumes that state urban mass transit operating assistance funds will be available to fund 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^eRepresents that portion of the projected operating expenses for Routes No. 1, 2, 3, and 4 which is not expected to be funded through operating revenues or federal, state, or local transit assistance. Based on its contract with Waukesha County for 1988, the private operator will assume responsibility for funding this portion of the expenses for these routes.

^fRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: Waukesha County Highway Department and SEWRPC.

the county transit services during the first six months of 1987 was about 7 percent below the ridership level observed during the first six months of 1986. Overall, total ridership on the six routes constituting the Waukesha County transit system in 1987 declined from about 276,400 revenue passengers in 1986 to about 266,200 revenue passengers in 1987--a decrease of about 4 percent. The total operating deficit of the transit system during 1987 was estimated at \$643,500, with the county share of this deficit amounting to about \$44,200, or \$3,800 more than the amount budgeted.

For calendar year 1988, a further decrease in transit ridership of about 4 percent is projected to occur, with transit ridership decreasing to about 256,000 revenue passengers--a decrease of about 10,100 revenue passengers. The reduction in transit service between the City of Oconomowoc and the Goerke's Corners public transit station may be expected to account for about 2,600 of these 10,100 passengers. Transit system operating revenue may be expected to decrease by about \$10,000, or 3 percent. Total operating expenses for the transit system are projected to increase from about \$995,000 in 1987 to about \$1,205,000 in 1988--an increase of approximately \$210,000, or 21 percent. About \$86,000, or 41 percent, of this increase can be attributed to increased capital depreciation charges by the contract transit operators. The remainder of the increase can be directly attributed to increases in the contract costs for Routes No. 1 through 4 by Wisconsin Coach Lines, Inc.

Despite the significant increase in the reported contract operating expenses, the projected decreases in operating revenues, and a reduction in the amount of federal transit operating assistance funds available to the County in 1988, county funding requirements for the transit system during 1988 are projected to decrease by about \$28,000, or by 64 percent, to about \$16,000 in 1988. This decrease can be directly attributed to the competitive bids submitted by Wisconsin Coach Lines, Inc., for Routes No. 1 through 4, and by Milwaukee Transport Services, Inc., for Route No. 79. These bids specified that no county funds were to be used to subsidize the operation of these bus routes. With respect to Routes No. 1 through 4, the bid submitted by Wisconsin Coach Lines and its subsequent contract for operation of the routes with Waukesha County specified that no county funds were to be used to subsidize the route despite the fact that projected levels of operating revenues and federal and state transit assistance for the routes were expected to cover less than the total amount of operating expenses for the routes. Based upon its contract with the County, about \$162,000 in operating expenses would have to be absorbed by the private transit operator. The private operator has indicated that revenues generated by the charter and tour divisions of the parent company would be used to offset the unfunded portion of the operating deficit for the Waukesha County service contract. With respect to Route No. 79, the bid submitted by Milwaukee Transport Services indicated that projected levels of operating revenue and federal and state transit assistance for the route would be more than sufficient to cover the projected total costs of route operation, excluding capital depreciation charges. Capital depreciation charged by Milwaukee Transport Services for the operating equipment used on Route No. 79, as well as on Route No. 10, is not eligible for federal and state transit funding assistance, and consequently must be funded entirely with county monies. The projected county funding requirement of \$16,000 for the transit system in 1988 represents local funding solely for the capital

depreciation expenses on Route No. 79, and the local operating subsidy required for Route No. 10.

ALTERNATIVE TRANSIT SERVICE OPTIONS FOR 1989 THROUGH 1992

The potential impacts of five alternative service options on the ridership and financial performance of the Waukesha County transit system during the period 1989 through 1992 were also examined. Under the first alternative service option, Waukesha County would continue to operate the transit services included in the 1988 transit system operating budget approved by the Waukesha County Highway and Transportation Committee during the entire period. Under the second option, Waukesha County would, in 1989, fully implement the reductions in transit service which had been recommended by Commission staff for calendar year 1988. Under the third option, proposed by Wisconsin Coach Lines, Inc., Waukesha County would purchase a fleet of buses and lease them back to a private transit operator for use in providing transit service over the contracted bus routes. Under the fourth option, Waukesha County would implement the Wisconsin Coach Lines proposal to modify Routes No. 1 and 2 to replace the service currently provided over Route No. 10. Under the fifth and final option, Waukesha County would implement the the City of Waukesha proposal to eliminate all Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4, along with all weekend and holiday service over Routes No. 1 and 2, while restructuring the weekday bus service currently operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district to provide for more high-speed rapid transit service between these points.

In order to address the concerns of some members of the Advisory Committee regarding the need for transit service within the County should there be a return to higher gasoline prices as experienced between 1979 and 1982, the analyses of these four options were conducted using two scenarios for the short-term future. Under the first scenario, which assumes a continuation of past trends, gasoline prices are assumed to increase to about \$1.00 per gallon during 1988, then remain at this level through 1992. Under the second scenario, there would be a return to higher motor fuel prices, such as those experienced in the Milwaukee area during 1982. Under this scenario, gasoline prices would also reach about \$1.00 per gallon in 1988, then increase steadily over the rest of the period, ultimately reaching a level of \$1.55 per gallon by 1992. This price would be comparable to that which was charged at the height of the motor fuel crisis in 1982, when past and projected increases in state and federal gasoline taxes are taken into consideration. The basic assumptions concerning the factors affecting transit ridership and the required county funding level for the Waukesha County transit system under each alternative future scenario for the period 1989 through 1992 are presented in Table 58.

In conducting the analysis of these four service options, it was assumed that Waukesha County would continue to award the service contracts for Routes 1, 2, 3, 4, and 79 through a competitive bid process. Based on the results of the competitive bid process followed for 1988, estimates of service characteristics and operating expenses for the transit system prepared for each option assume the continued operation of these routes by the current operators. That

Table 58

**BASIC ASSUMPTIONS CONCERNING FACTORS AFFECTING TRANSIT RIDERSHIP
AND REQUIRED COUNTY FUNDING LEVELS FOR THE WAUKESHA COUNTY
TRANSIT SYSTEM UNDER ALTERNATIVE SCENARIOS FOR THE PERIOD 1989-1992**

Factor	Scenario 1: Based on Continuation of Past Trends	Scenario 2: Based on a Return to High Motor Fuel Prices
Motor Fuel Prices	Stable at about \$1.00 per gallon of gasoline throughout period	Steady increase in prices from 1989 to 1992, with price of gasoline reaching \$1.55 per gallon by 1992
Transit Operating Expenses	Increases of 4 percent per year per unit of service	Increases of 5 to 6 percent per year per unit of service
Passenger Fares	No change from the 1988 fare structure effective February 15, 1988	No change from the 1988 fare structure effective February 15, 1988
Federal Transit Assistance	Reduction in operating assistance available for Waukesha County transit system of 5 percent per year between 1989 and 1992. Sufficient capital assistance available to fund Waukesha County needs for capital cost of contracting	Reduction in operating assistance available for Waukesha County transit system of 5 percent per year between 1989 and 1992. Sufficient capital assistance available to fund Waukesha County needs for capital cost of contracting
State Transit Assistance	State transit operating assistance continues to be available to fund 37.5 percent of eligible transit system operating expenses	State transit operating assistance continues to be available to fund 37.5 percent of eligible transit system operating expenses
Procurement of Transit Services	Service contracts awarded based on competitive bids	Service contracts awarded based on competitive bids

Source: SEWRPC.

is, Routes No. 1, 2, 3, and 4 would continue to be operated by Wisconsin Coach Lines, Inc., and Routes No. 10 and 79 would continue to be operated by the management firm for the Milwaukee County Transit System. This assumption was deemed more appropriate for the analysis of service options for the short-range future since it would result in a slightly higher county funding requirement for the transit system, thereby representing a "worst case" scenario for county funding.

Estimates of operating expenses for the transit system assume that expenses will increase somewhat between 1989 and 1992 as a result of current labor contracts, changes in motor fuel prices, and general price inflation. Also, based upon the discussion in the previous section regarding the subsidy provided by the private operator for Routes No. 1, 2, 3, and 4 during 1988, it has been assumed that from 1989 through 1992, a portion of the operating expenses for these routes will continue to be subsidized by the current private transit operator, as was agreed upon in its 1988 contract with Waukesha County. All estimates of incremental changes in operating expenses attributable to the service changes proposed under each service option are based upon marginal costs rather than total average costs.

No changes in passenger fares from those that were in effect during 1988 were assumed. Fares for travel over Routes No. 1, 2, 3, and 4 between downtown Waukesha and the Milwaukee central business district, and between Goerke's

Corners and the Milwaukee central business district, were assumed to be raised from \$1.85 and \$1.60 per one-way trip, respectively, to \$1.95 and \$1.75 per one-way trip. These fare increases were implemented by the private operator in February 1988. Fares for travel between other stops on these routes and for travel on Routes No. 10 and 79 were assumed to remain the same as those charged during 1987.

No changes in state urban mass transit operating assistance funds were assumed; such assistance should continue to be available to fund up to 37.5 percent of eligible transit system operating expenses. However, based upon the actions of the U. S. Congress in December 1987 directed toward reducing the national budget deficit, significant reductions in federal transit operating assistance levels were assumed during the period. The legislation enacted by the U. S. Congress at the end of 1987 called for a reduction in federal Section 9 transit operating assistance funds of 5 percent during 1988. A reduction of 5 percent per year in federal operating assistance funds was also assumed for the period 1989 through 1992. This assumption results in the federal transit operating assistance funds available to Waukesha County being reduced from the 1988 level of approximately \$183,300 to about \$149,200 by 1992--a reduction of \$34,100, or about 19 percent.

It was also assumed that county funds for the public transit system would continue to be limited between 1989 and 1992, as they were for 1988. In this respect, it was assumed that the operating budget for the transit system during calendar years 1989 through 1992 would continue to require no more than a 2 percent increase over the local tax levy required in the preceding year. Based upon a local tax levy for public transit service of approximately \$41,200 during 1988, the local tax levy for public transit service during 1992 would be limited to approximately \$44,600--an increase of about 8 percent over the 1988 tax levy. The ability of each alternative service option to stay within the limits of the available county funding was, accordingly, considered to be a major factor in determining the feasibility of each option.

Alternative 1: Continue to Operate Transit Services Included in 1988 Budget

This alternative service option essentially represents a baseline or status quo alternative for the Waukesha County transit system for the period 1989 to 1992. Under this option, Waukesha County would continue to operate the transit services included in the 1988 operating budget for the transit system during the period 1989 through 1992. This would include the operation of all six bus routes subsidized by the County during 1987. Service levels on all bus routes would be essentially the same as those operated during 1987 except on Route No. 3. Since January 1988, this route has been operated with reduced service levels between the City of Oconomowoc and the Goerke's Corners public transit station. In addition, minor routing and scheduling changes for Routes No. 1 and 2 were implemented early in February 1988.

The ridership and financial performance of the transit system under this service option assuming a continuation of past trends is shown in Table 59. Under this scenario, the gradual decline in transit ridership would be expected to continue over the entire planning period, with annual transit ridership on the system expected to decline from about 256,000 riders in 1988 to about 245,000 riders in 1992, representing a total decline of approximately 4 percent. The total operating deficit for the transit system would be expected to increase by about 24 percent over the period, from about \$864,000

Table 59

ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 1 ASSUMING A CONTINUATION OF PAST TRENDS: 1989-1992

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	251,900	248,100	246,400	244,700
Annual Vehicle Hours						
Revenue	18,810	18,250	18,090	18,090	18,090	18,250
Total	23,620	23,120	23,930	22,930	22,930	23,140
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	13.9	13.7	13.6	13.4
Annual Vehicle Miles						
Revenue	341,800	331,900	329,600	329,600	329,600	332,600
Total	429,500	411,200	408,300	408,300	408,300	412,200
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.76	0.75	0.75	0.74
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$1,153,900	\$1,200,100	\$1,248,000	\$1,310,000
Capital Equipment Element ^a	1,500	88,300	87,700	87,700	87,700	88,600
Total Annual	\$994,500	\$1,205,300	\$1,241,600	\$1,287,800	\$1,335,700	\$1,398,600
Per Revenue Passenger	3.74	4.71	4.94	5.19	5.42	5.72
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.32	\$1.32	\$1.32	\$1.32
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$ 332,300	\$ 327,700	\$ 325,100	\$ 322,500
Other Revenue	1,200	1,200	1,200	1,200	1,200	1,200
Total Revenue	\$351,000	\$ 341,100	\$ 333,500	\$ 328,900	\$ 326,300	\$ 323,700
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	26.9	25.5	24.4	23.1
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$ 174,100	\$ 165,400	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^c	0	81,200	81,200	81,700	82,300	83,700
Subtotal	\$226,900	\$ 264,500	\$ 255,300	\$ 247,100	\$ 239,400	\$ 232,900
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$ 432,700	\$ 450,000	\$ 468,000	\$ 491,300
Attributable to Expenses for Capital Equipment Charged by Private Operators ^d	0	31,100	30,900	30,900	30,900	31,200
Subtotal	\$372,400	\$ 450,000	\$ 463,600	\$ 480,900	\$ 498,900	\$ 522,500
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 40,500	\$ 76,800	\$ 111,300	\$ 152,300
Attributable to Private Transit Operator ^e	0	161,850	148,700	154,100	159,800	167,200
Other	0	-28,150 ^f	0	0	0	0
Subtotal	\$643,200	\$ 149,700	\$ 189,100	\$ 230,900	\$ 271,100	\$ 319,500
Total	\$643,500	\$ 864,200	\$ 908,100	\$ 958,900	\$1,009,400	\$1,074,900
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.62	\$3.86	\$4.10	\$4.39

^aRepresents depreciation capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cUMTA formula Section 9 capital assistance funds made available through the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^dAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^eRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^fRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

in 1988 to about \$1,075,000 in 1992 owing to reduced passenger revenues and increased operating expenses. The county funding requirement for the transit system would also be expected to increase dramatically, from about \$16,000 in 1988 to approximately \$152,000 in 1992.

Table 60 presents the ridership and financial performance of the transit system under this service option assuming a return to high motor fuel prices. Under this scenario, the transit system would experience a steady increase in transit ridership over the period, with annual transit ridership increasing to about 304,000 passengers by 1992, or by about 19 percent. However, increases in passenger revenues due to increases in transit ridership would be offset by increases in operating expenses. As a result, the total operating deficit for the transit system would increase under this scenario to about \$1,068,000 by 1992. While this increase would be virtually equivalent to the level expected assuming a continuation of past trends, the county funds required to subsidize the operation of the transit system by 1992 would be somewhat less, amounting to about \$106,000. The lower county funding requirement would be due to increases in state transit operating assistance funds which would be generated through the projected increases in total transit system operating expenses. However, the projected county subsidy levels under this scenario would still significantly exceed the projected budget limit of \$44,600.

Alternative 2: Fully Implement Service Cuts Included in Preliminary Staff-Recommended 1988 Budget Option

As discussed in a previous section of this chapter, a number of service reductions in Waukesha County transit services were recommended on a preliminary basis by Commission staff in order for Waukesha County to meet the county funding level for the transit system required under the 1988 operating budget. These service reductions included the elimination of all Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4; reduced bus service between the Goerke's Corners public transit station and downtown Milwaukee; elimination of all weekend and holiday bus service between Waukesha and Milwaukee on Routes No. 1 and 2; a reduction in weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center over Route No. 2; and the elimination of weekday late evening bus service between Waukesha and downtown Milwaukee over Route No. 1. As previously noted, the budget ultimately adopted by Waukesha County for the transit system during 1988 included some reduction in transit service between Oconomowoc and Milwaukee over Route No. 3. In addition, the service changes implemented in February 1988 on Routes No. 1 and 2 included some reduction in weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center. Under this alternative, Waukesha County would, in 1989, implement the remaining service cuts included in the preliminary staff-recommended proposal and operate the transit system with reduced transit service levels through 1992.

The ridership and financial performance of the transit system under this service option assuming a continuation of past trends is shown in Table 61. Under this scenario, there would be a significant reduction in annual transit ridership on the transit system in 1989 due to the implementation of the proposed service reductions followed by a gradual reduction in transit ridership between 1990 and 1992 similar to that projected under the status quo alternative. Overall, annual transit ridership on the transit services would decline from about 256,000 revenue passengers in 1988 to about 216,000 revenue passengers in 1992--a decline in total system ridership of about 40,000

Table 60

ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 1 ASSUMING A RETURN TO HIGH MOTOR FUEL PRICES: 1989-1992

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	267,100	278,700	291,000	304,200
Annual Vehicle Hours						
Revenue	18,810	18,250	18,090	18,090	18,090	18,250
Total	23,620	23,120	22,930	22,930	22,930	23,140
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	14.8	15.4	16.1	16.7
Annual Vehicle Miles						
Revenue	341,800	331,900	329,600	329,600	329,600	332,600
Total	429,500	411,200	408,300	408,300	408,300	412,200
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.81	0.85	0.88	0.91
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$1,171,300	\$1,236,500	\$1,305,300	\$1,390,800
Capital Equipment Element ^a	1,500	88,300	87,700	87,700	87,700	88,600
Total Annual	\$994,500	\$1,205,300	\$1,259,000	\$1,324,200	\$1,393,000	\$1,479,400
Per Revenue Passenger	3.74	4.71	4.71	4.75	4.79	4.86
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.33	\$1.34	\$1.34	\$1.35
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$ 355,800	\$ 372,600	\$ 390,600	\$ 409,800
Other Revenue	1,200	1,200	1,200	1,200	1,200	1,200
Total Revenue	\$351,000	\$ 341,100	\$ 357,000	\$ 373,800	\$ 391,800	\$ 411,000
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	28.4	28.2	28.1	27.8
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$ 174,100	\$ 165,400	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^c	0	81,200	81,300	82,200	83,000	84,600
Subtotal	\$226,900	\$ 264,500	\$ 255,400	\$ 247,600	\$ 240,100	\$ 233,800
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$ 439,200	\$ 463,700	\$ 489,500	\$ 521,600
Attributable to Expenses for Capital Equipment Charged by Private Operators ^d	0	31,100	30,900	30,900	30,900	31,200
Subtotal	\$372,400	\$ 450,000	\$ 470,100	\$ 494,600	\$ 520,400	\$ 552,800
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 25,800	\$ 50,000	\$ 74,500	\$ 105,600
Attributable to Private Transit Operator ^e	0	161,850	150,700	158,200	166,200	176,200
Other	0	-28,150 ^f	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$ 176,500	\$ 208,300	\$ 240,800	\$ 281,800
Total	\$643,500	\$ 864,200	\$ 902,000	\$ 950,400	\$1,001,200	\$1,068,400
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.38	\$3.41	\$3.44	\$3.51

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cUMTA formula Section 9 capital assistance funds made available under the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^dAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^eRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^fRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

Table 61

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 2
ASSUMING A CONTINUATION OF PAST TRENDS: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	221,300	218,800	217,300	215,800
Annual Vehicle Hours						
Revenue	18,810	18,250	14,070	14,070	14,070	14,220
Total	23,620	23,120	17,950	17,950	17,950	18,140
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	15.7	15.6	15.4	15.2
Annual Vehicle Miles						
Revenue	341,800	331,900	247,100	247,100	247,100	249,900
Total	429,500	411,200	315,100	315,100	315,100	318,600
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.90	0.89	0.88	0.86
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$927,900	\$ 965,000	\$1,003,600	\$1,055,200
Capital Equipment Element ^a	1,500	88,300	70,500	70,500	70,500	71,400
Total Annual	\$994,500	\$1,205,300	\$998,400	\$1,035,500	\$1,074,100	\$1,126,600
Per Revenue Passenger	3.74	4.71	4.51	4.73	4.94	5.22
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.29	\$1.28	\$1.28	\$1.28
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$284,400	\$ 280,600	\$ 278,400	\$ 276,100
Other Revenue	1,200	1,200	1,000	1,000	1,000	1,000
Total Revenue	\$351,000	\$ 341,100	\$285,400	\$ 281,600	\$ 279,400	\$ 277,100
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	28.6	27.2	26.0	24.6
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$160,900 ^c	\$ 165,400	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^d	0	81,200	63,500	63,900	64,400	65,600
Subtotal	\$226,900	\$ 264,500	\$224,400	\$ 229,300	\$ 221,500	\$ 214,800
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$348,000	\$ 361,900	\$ 376,400	\$ 395,700
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	24,500	24,500	24,500	24,800
Subtotal	\$372,400	\$ 450,000	\$372,500	\$ 386,400	\$ 400,900	\$ 420,500
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 5,300	\$ 23,400	\$ 53,300	\$ 89,400
Attributable to Private Transit Operator ^f	0	161,850	110,800	114,800	119,000	124,800
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$116,100	\$ 138,200	\$ 172,300	\$ 214,200
Total	\$643,500	\$ 864,200	\$713,000	\$ 753,900	\$ 794,700	\$ 849,500
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.22	\$3.45	\$3.66	\$3.94

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available under the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

revenue passengers, or about 16 percent. The total operating deficit for the transit system would be expected to decline significantly during 1989 primarily as a result of the reduced operating expenses and improved system efficiency gained through the proposed service cuts. However, the deficit for the transit system would increase between 1990 and 1992 owing to declining passenger revenues and federal aids and increases in operating expenses. By 1992 the total operating deficit for the transit system is projected to be about \$850,000, which would represent a reduction of about \$14,000, or about 2 percent, from the total operating deficit for the transit system during 1988 of about \$864,000. With the proposed service cuts, the county funds needed to subsidize the operation of the transit system during 1989 and 1990 would remain within projected budget limits. However, the county funds required during the last two years of the period would exceed projected budget limits, with county funding requirements projected to be about \$89,000 by 1992.

Table 62 presents the ridership and financial performance of the transit system under this service option assuming a return to high motor fuel prices. Under this scenario, the transit system would also experience a significant drop in annual transit ridership during 1989, as the proposed service cuts were implemented. This would be followed by a gradual increase in transit ridership over the remaining years of the period, with annual transit ridership reaching approximately 264,000 revenue passengers by 1992, or about 3 percent above projected 1988 ridership levels. The total operating deficit for the transit system would follow a similar pattern, ultimately reaching virtually the same level by 1992 as it would under the scenario assuming a continuation of the past trends. Under this scenario, the county funds that would be required to subsidize the operation of the transit system would remain within projected budget limits until 1991. However, county funding levels for the transit system are projected to be about \$57,000 in 1992, which would exceed the projected limit of \$44,600.

Alternative 3: Vehicle Purchase/Lease-Back Option

Under this alternative, proposed by Wisconsin Coach Lines, Inc., Waukesha County would purchase a fleet of transit vehicles similar to those used by the private transit operator on Routes No. 1, 2, 3, and 4, and lease the vehicles back to the private transit company for its use in providing service over these routes. To finance the purchase of the vehicle fleet, Waukesha County would rely upon federal transit capital assistance funds, such as those available through the UMTA Section 9 formula assistance program, which provide 80 percent federal funding for the purchase of transit equipment and facilities, including revenue vehicles. Waukesha County would be responsible for providing funds to cover the remaining 20 percent of the costs of the capital equipment.

By purchasing the vehicles and providing the vehicle fleet for its contracted transit services, Waukesha County would be able to take advantage of federal funds for capital equipment purchases which are not available directly to private transit operators. In return, the private transit operator should be able to reduce the cost charged to the County for operating the contract transit services since it would no longer have to charge depreciation for wear and tear on its own vehicles. The costs charged by Waukesha County to the private transit operator for leasing the vehicle fleet would, accordingly, have to be kept to a nominal level--such as \$1.00 per year--otherwise the lease costs would be charged back as operating costs, which would negate any advantage to this arrangement. Some additional reductions in operating

Table 62

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 2
ASSUMING A RETURN TO HIGH MOTOR FUEL PRICES: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	234,700	243,800	253,500	263,900
Annual Vehicle Hours						
Revenue	18,810	18,250	14,070	14,070	14,070	14,220
Total	23,620	23,120	17,950	17,950	17,950	18,140
Revenue Vehicles per Revenue Vehicle Hour	14.2	14.0	16.7	17.3	18.0	18.6
Annual Vehicle Miles						
Revenue	341,800	331,900	247,100	247,100	247,100	249,900
Total	429,500	411,200	315,100	315,100	315,100	318,600
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.95	0.99	1.03	1.06
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$ 942,000	\$ 994,600	\$1,050,100	\$1,121,000
Capital Equipment Element ^a	1,500	88,300	70,500	70,500	70,500	71,400
Total Annual	\$994,500	\$1,205,300	\$1,012,500	\$1,065,100	\$1,120,600	\$1,192,400
Per Revenue Passenger	3.74	4.71	4.31	4.37	4.42	4.52
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.29	\$1.29	\$1.30	\$1.30
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$ 303,400	\$ 315,400	\$ 328,400	\$ 342,200
Other Revenue	1,200	1,200	1,000	1,000	1,000	1,000
Total Revenue	\$351,000	\$ 341,100	\$ 304,400	\$ 316,400	\$ 329,400	\$ 343,200
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	30.1	29.7	29.4	28.8
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$ 149,100 ^c	\$ 163,800 ^c	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^d	0	81,200	63,700	64,300	64,900	66,300
Subtotal	\$226,900	\$ 264,500	\$ 212,800	\$ 228,100	\$ 222,000	\$ 215,500
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$ 353,300	\$ 373,000	\$ 393,800	\$ 420,400
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	24,500	24,500	24,500	24,800
Subtotal	\$372,400	\$ 450,000	\$ 377,800	\$ 397,500	\$ 418,300	\$ 445,200
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 5,300	\$ 5,300	\$ 27,100	\$ 57,000
Attributable to Private Transit Operator ^f	0	161,850	112,200	117,800	123,800	131,500
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$ 117,500	\$ 123,100	\$ 150,900	\$ 188,500
Total	\$643,500	\$ 864,200	\$ 708,100	\$ 748,700	\$ 791,200	\$ 849,200
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.02	\$3.07	\$3.12	\$3.22

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available under the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

expenses charged by the private operator should also be possible under this arrangement, since it eliminates the risk to the private operator of having an idle fleet should its service contract not be renewed.

If Waukesha County decided to use federal transit capital assistance funds to purchase a vehicle fleet for its contracted transit services, it would need to allow adequate lead time to acquire the fleet. In this respect, it would be reasonable to plan for a two-year time frame to procure new transit vehicles under federal grant assistance programs. This amount of time would be required for Waukesha County to apply for and be awarded a federal transit capital assistance grant, to solicit bids and award the contract for the new vehicles to a transit vehicle manufacturer, and to allow the manufacturer time to build and deliver the vehicles. Assuming that Waukesha County would not be able to begin this process until 1989, it would not have a fleet of transit vehicles available for lease to a private operator until 1991, and would not be able to realize any of this option's potential advantages until that time. If the County were to acquire a fleet of used transit vehicles, less lead time would be required since the County would not have to wait for the vehicles to be manufactured. A fleet of used buses could be available for lease by 1990.

It should be noted that with the advancement of the federal capital-cost-of-contracting policy, the availability of federal grants for capital equipment purchases by public bodies is no longer an advantage. Such availability was an advantage in the past when federal capital grants were available to offset 80 percent of the costs of purchasing the capital equipment used by public transit operators, but the federal operating assistance grants that were available offset a much lower proportion of the depreciation charged by private operators as part of their operating expenses. In this respect, the federal operating assistance funds available to Waukesha County between 1985 and 1987 have been sufficient to cover only from 18 to 23 percent of total transit system operating expenses. Under its new capital-cost-of-contracting policy, the federal Urban Mass Transportation Administration has provided for a more evenhanded consideration of public and private alternatives with regard to expenditure of federal capital assistance by allowing the capital portion of expenses charged by private transit operators to be reimbursed at the same rate as allowed for capital equipment purchased by public bodies. Consequently, Section 9 formula capital assistance funds can now be used to offset 80 percent of the capital depreciation and overhead expenses included in contracts with private transit operators. Moreover, contract expenditures for depreciation of capital equipment qualifying for 80 percent federal capital assistance under the UMTA capital-cost-of-contracting policy would also qualify for 37.5 percent funding under the State's urban mass transit operating assistance program. Thus, federal and state aids amounting to 117.5 percent of eligible private operator depreciation expenses would be available to Waukesha County through this policy, compared with 80 percent federal funding if Waukesha County were to purchase a fleet of transit vehicles.

The bus purchase/lease-back option also has several disadvantages. While Waukesha County would be the owner of the revenue equipment, it would be the responsibility of the private operator under the lease arrangement to provide the bus operators, maintenance services, and storage facility for the revenue vehicles. To help ensure that the county, as well as the federal, interest in the vehicles not compromised by the private operator's actions in this regard, county staff would be required to devote more time to monitoring the activities of the transit operator. In this respect, to protect its interest in the

vehicles, the County would want to make sure that only qualified drivers are used by the private operator; that the maintenance program provides for adequate maintenance services; that the storage facilities ensure the vehicles' physical safety and reliability; and that adequate insurance coverage is provided. The cost of this staff monitoring would, in all likelihood, offset a portion of the reduction in operating expenses charged by the private transit operator under this option.

In addition, the acquisition of a vehicle fleet by Waukesha County could reduce some of the flexibility that the County enjoys under its current contracts with transit operators. In this respect, because of concerns over potentially idle transit buses, Waukesha County may find it more difficult to implement service changes in the future should the changes require the operation of a significantly fewer number of buses than owned in the vehicle fleet. Finally, transit contractors may, in future years, increase their operating expenses charged to the County to cover the risk they will assume in operating and maintaining vehicles that have been operated and maintained by other transit operators following different practices.

The specific proposal made by the private transit operator called for Waukesha County to obtain a federal grant for 80 percent of the costs of purchasing the vehicle fleet. Waukesha County would then lease the buses back to the private operator, with the lease payments based upon the full purchase cost of the revenue vehicles, including both the federal and local shares. Waukesha County could then use the local share of the lease payment to pay off the local 20 percent share of the purchase cost of the revenue vehicles and retain the federal share of the lease payment, applying it toward the local operating deficit for the transit system. Based on current federal Urban Mass Transportation Administration (UMTA) project management guidelines, it is doubtful if this practice would be allowed. UMTA maintains an interest in all major capital equipment and facilities purchased with federal funds throughout the life of the piece of equipment or facility. If lease payments are charged based upon the full price of the revenue vehicle, it is quite possible that the federal government would demand that 80 percent of the lease payments collected be repaid to UMTA.

Based upon the above discussion, it may be concluded that there is little reason to pursue the bus purchase/lease-back option as proposed by the private transit operator. With the advancement of the federal capital-cost-of-contracting policy, the advantages of acquiring a fleet of revenue vehicles are negated. Rather, if the private operator uses his own equipment, and includes depreciation in the costs charged to Waukesha County for the contracted services, Waukesha County may be able to get 80 percent federal assistance plus 37.5 percent state assistance to cover these capital expenses. Such federal and state aids, coupled with the continued flexibility allowed for transit service levels under the current contract arrangements, would outweigh the possible advantage of lower operating costs with county ownership of revenue vehicles.

Alternative 4: Private Operator Proposal to Replace Service Provided Over Route No. 10

This service option is identical to the option proposed by Wisconsin Coach Lines, Inc., for consideration in the development of the 1988 Waukesha County transit system operating budget. Under this option, Waukesha County would no

longer contract for the extension of Milwaukee County Transit System Route No. 10 from the Waukesha-Milwaukee County line to the Brookfield Square Shopping Center and the Executive Drive office park area. Instead, modifications would be made to Routes No. 1 and 2 as operated by the private transit company in order to replace the 21 weekday and 16 Saturday round trips operated over Route No. 10 in Waukesha County with five and one-half weekday and four Saturday round trips operated over an extension of Route No. 2. This extension would essentially duplicate the current routing of Route No. 10 in Waukesha and Milwaukee Counties. The private transit operator would essentially shift bus runs that currently operate on Route No. 1 over IH 94 and W. Greenfield Avenue between downtown Milwaukee and the Brookfield Square Shopping Center to operation over E. and W. Wells Street, Wisconsin Avenue, and W. Blue Mound Road between those points to provide the replacement service for Route No. 10 on Route No. 2. Service modifications to Routes 1 and 2 would also be made under this option to improve scheduled running times and transit service provided to major office developments in the Blue Mound Road corridor. Transit service levels over the remaining three routes of the transit system--Route Nos. 3, 4, and 79--would be the same as those proposed to be maintained under the status quo alternative.

The ridership and financial performance of the transit system under this service option assuming a continuation of past trends is shown in Table 63. Under this scenario, there would be a significant drop in the annual transit ridership on the transit system in 1989 with the implementation of the proposed service changes, followed by a gradual decline in transit ridership between 1990 and 1992. By 1992, annual transit ridership would have declined to about 196,000 revenue passengers, representing a decrease of about 60,000 revenue passengers, or 23 percent, from the 1988 ridership level of about 256,000 revenue passengers. The total operating deficit of the transit system would be expected to increase by about 10 percent over the period--from about \$864,000 in 1988 to about \$949,000 in 1992. The county funds that would be required to subsidize the operation of the transit system under this scenario would remain within projected budget limits until the last two years of the period, with the county funding requirement projected to be approximately \$83,000 in 1992--substantially above the projected budget limit of \$44,600 for that year.

Table 64 presents the ridership and financial performance of the transit system under this service option assuming a return to high motor fuel prices. Under this scenario, annual transit ridership would drop sharply in 1989, then steadily increase during the remaining years in the period. By 1992, annual transit ridership would be about 250,000 revenue passengers, representing a decrease of about 6,000 revenue passengers, or about 2 percent, from projected 1988 ridership levels. The annual operating deficit for the transit system would increase over the period, reaching about \$934,000 by 1992. However, under this service option, the county funding that would be required to subsidize the operation of the transit system in any year between 1989 and 1992 would always be below projected budget limits.

Alternative 5: City of Waukesha Proposal to Modify Routes No. 1 and 2

Under this service option, Waukesha County would implement the cuts in Oconomowoc-to-Milwaukee service over Routes No. 3 and 4 and weekend and holiday service over Routes No. 1 and 2 proposed by Commission staff under a previous

Table 63

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 4
ASSUMING A CONTINUATION OF PAST TRENDS: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	202,400	199,500	197,800	196,100
Annual Vehicle Hours						
Revenue	18,810	18,250	14,720	14,720	14,720	14,840
Total	23,620	23,120	19,220	19,220	19,220	19,400
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	13.8	13.6	13.4	13.2
Annual Vehicle Miles						
Revenue	341,800	331,900	303,300	303,300	303,300	306,000
Total	429,500	411,200	381,000	381,000	381,000	384,600
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.67	0.66	0.65	0.64
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$1,010,200	\$1,050,800	\$1,092,700	\$1,147,000
Capital Equipment Element ^a	1,500	88,300	88,300	88,300	88,300	89,100
Total Annual	\$994,500	\$1,205,300	\$1,098,500	\$1,139,100	\$1,181,000	\$1,236,100
Per Revenue Passenger	3.74	4.71	5.43	5.71	5.97	6.30
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.47	\$1.46	\$1.46	\$1.46
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$ 296,800	\$ 291,500	\$ 288,800	\$ 286,300
Other Revenue	1,200	1,200	1,200	1,200	1,200	1,200
Total Revenue	\$351,000	\$ 341,100	\$ 298,000	\$ 292,700	\$ 290,000	\$ 287,500
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	27.1	25.7	24.6	23.3
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$ 152,600 ^c	\$ 165,400	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^d	0	81,200	82,300	82,800	83,400	84,800
Subtotal	\$226,900	\$ 264,500	\$ 234,900	\$ 248,200	\$ 240,500	\$ 234,000
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$ 378,800	\$ 394,100	\$ 409,800	\$ 430,100
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	31,300	31,300	31,300	31,600
Subtotal	\$372,400	\$ 450,000	\$ 410,100	\$ 425,400	\$ 441,100	\$ 461,700
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 4,800	\$ 16,500	\$ 47,500	\$ 83,400
Attributable to Private Transit Operator ^f	0	161,850	150,700	156,300	161,900	169,500
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$ 155,500	\$ 172,800	\$ 209,400	\$ 252,900
Total	\$643,500	\$ 864,200	\$ 800,500	\$ 846,400	\$ 891,000	\$ 948,600
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.96	\$4.24	\$4.50	\$4.84

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available through the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

Table 64

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 4
ASSUMING A RETURN TO HIGH MOTOR FUEL PRICES: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	216,800	227,000	237,900	249,600
Annual Vehicle Hours						
Revenue	18,810	18,250	14,720	14,720	14,720	14,840
Total	23,620	23,120	19,220	19,220	19,220	19,400
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	14.7	15.4	16.2	16.8
Annual Vehicle Miles						
Revenue	341,800	331,900	303,300	303,300	303,300	306,000
Total	429,500	411,200	381,000	381,000	381,000	384,600
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.71	0.75	0.78	0.82
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$1,024,900	\$1,081,300	\$1,140,700	\$1,214,600
Capital Equipment Element ^a	1,500	88,300	88,300	88,300	88,300	89,100
Total Annual	\$994,500	\$1,205,300	\$1,113,200	\$1,169,800	\$1,229,000	\$1,303,700
Per Revenue Passenger	3.74	4.71	5.13	5.15	5.17	5.22
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.47	\$1.47	\$1.48	\$1.48
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$ 319,000	\$ 333,700	\$ 350,800	\$ 368,900
Other Revenue	1,200	1,200	1,200	1,200	1,200	1,200
Total Revenue	\$351,000	\$ 341,100	\$ 320,200	\$ 334,900	\$ 352,000	\$ 370,100
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	28.8	28.6	28.6	28.4
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$ 137,500 ^c	\$ 149,400 ^c	\$ 157,100	\$ 149,200
Attributable to Capital Assistance ^d	0	81,200	82,400	83,300	84,100	85,700
Subtotal	\$226,900	\$ 264,500	\$ 219,900	\$ 232,700	\$ 241,200	\$ 234,900
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$ 384,300	\$ 405,500	\$ 427,800	\$ 455,500
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	31,300	31,300	31,300	31,600
Subtotal	\$372,400	\$ 450,000	\$ 415,600	\$ 436,800	\$ 459,100	\$ 487,100
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 4,800	\$ 4,800	\$ 8,200	\$ 32,900
Attributable to Private Transit Operator ^f	0	161,850	152,700	160,400	168,500	178,700
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$ 157,500	\$ 165,200	\$ 176,700	\$ 211,600
Total	\$643,500	\$ 864,200	\$ 793,000	\$ 834,700	\$ 877,000	\$ 933,600
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$3.66	\$3.68	\$3.60	\$3.74

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available through the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

service option. In addition, the weekday bus service currently operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district would be extensively restructured to provide for more direct, high-speed rapid transit service. No changes would be made under this proposal to the bus services operated over Route No. 10 and over Route No. 79.

The service proposal suggested by City of Waukesha staff calls for restructuring both Routes No. 1 and 2 of the county transit system, as shown on Map 23. Under the City's proposal, Route No. 1 would no longer provide service north of W. Greenfield Avenue to the Brookfield Square Shopping Center over Moorland Road, or east of IH 894 within the City of West Allis over W. Greenfield Avenue and N. 70th Street. Instead, Route No. 1 would be operated over W. Greenfield Avenue, IH 894, and IH 94 directly into downtown Milwaukee. The changes proposed for Route No. 2 include replacing the current circuitous local routing followed within the City of Waukesha between the terminal in downtown Waukesha and intersection of Whiterock Avenue and E. Moreland Boulevard with a more direct routing between these points using Whiterock Avenue. In addition, all service operated over the route on W. Blue Mound Road and Moorland Road between the Goerke's Corners public transit station and the intersection of IH 94 and Moorland Road, and on W. Blue Mound Road and W. Wisconsin Avenue between the Brookfield Square Shopping Center and the Milwaukee central business district, would be operated over IH 94. This service change would eliminate the service currently being provided by the county transit system to the business and commercial establishments along W. Blue Mound Road in the City of Brookfield, including service to the Brookfield Square Shopping Center. Stops would be added to both Route No. 1 and Route No. 2 along IH 94 in Milwaukee County at N. 84th Street, N. 76th Street, and N. 68th Street to allow passengers on these Waukesha County routes to transfer to major north-south routes of the Milwaukee County Transit System.

A comparison of selected operating and service characteristics of Routes No. 1 and 2 of the county transit system under this service option with the characteristics of these routes under the status quo alternative is presented in Table 65. Bus service over Routes No. 1 and 2 would no longer be available on weekends or holidays. Weekday bus service over Route No. 1 would be substantially reduced, with the service limited to peak-period, peak-direction service. The peak-period service provided over Route No. 1 under this option would represent a reduction of one bus trip in the morning peak period and two bus trips in the afternoon peak period from the service operated under the status quo alternative in the peak travel direction. Weekday bus service over Route No. 2 would be substantially increased, with peak-period, peak-direction bus service between downtown Waukesha and downtown Milwaukee increased from two to four trips under this service option. Bus service would also be increased between the Goerke's Corners public transit station and downtown Milwaukee over Route No. 2, in part to replace the bus service that is currently provided between these points over Routes No. 3 and 4 which would be discontinued under this option. The four inbound morning bus trips provided between Goerke's Corners and downtown Milwaukee under this option would, however, represent a decrease of one bus trip from the number of bus trips that would be operated over Routes No. 2, 3, and 4 under the status quo alternative. The total number number of bus trips that would be provided between these points during the afternoon peak period would be the same as under the status quo alternative. Attempts would be made to maximize the coordination of arrival and departure times of the county and city bus trips serving the downtown Waukesha bus terminal to reduce waiting times for passengers transferring between transit systems.

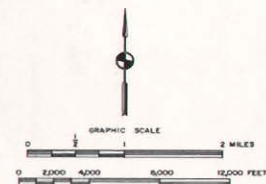


Table 65

COMPARISON OF SELECTED OPERATING CHARACTERISTICS OF WAUKESHA COUNTY BUS ROUTES NO. 1 AND 2 UNDER ALTERNATIVE 1 AND UNDER ALTERNATIVE 5

Service Characteristic	Alternative 1 Status Quo Alternative		Alternative 5 City of Waukesha Service Proposal	
	Route No. 1 Waukesha to Milwaukee Greenfield Avenue	Route No. 2 Waukesha to Milwaukee via Blue Mound Road and IH 94	Route No. 1 Waukesha to Milwaukee via Greenfield Avenue	Route No. 2 Waukesha to Milwaukee via IH 94
Hours of Operation				
Weekdays	5:35 a.m. - 10:03 p.m.	6:50 a.m. - 7:25 p.m.	6:35 a.m. - 8:55 a.m.	6:05 a.m. - 7:45 p.m.
Saturdays	8:00 a.m. - 10:03 p.m.	9:00 a.m. - 6:15 p.m.	4:30 p.m. - 5:55 p.m.	
Sundays and Holidays	11:00 a.m. - 10:03 p.m.	1:10 p.m. - 6:13 p.m.		
Scheduled Weekday One-Way Bus Trips Between: Downtown Waukesha and Downtown Milwaukee	10 eastbound (3 during a.m. peak period) 7 westbound (4 during p.m. peak period)	6 eastbound (2 during a.m. peak period) 8 westbound (2 during p.m. peak period)	2 eastbound (both during a.m. peak period) 2 westbound (both during p.m. peak period)	14 eastbound (4 during a.m. peak period) 17 westbound (4 during p.m. peak period)
Goerke's Corners Public Transit Station and Downtown Milwaukee	--	7 eastbound (3 during a.m. peak period) 7 westbound (2 during p.m. peak period) ^a	--	14 eastbound (4 during a.m. peak period) 17 westbound (4 during p.m. peak period)
Downtown Waukesha and Brookfield Square Shopping Center	6 eastbound; 6 westbound	5 eastbound; 6 westbound	-- ^b	-- ^b
Brookfield Square Shopping Center and Downtown Milwaukee	6 eastbound (0 during a.m. peak period) 6 westbound (3 during p.m. peak period)	7 eastbound (3 during a.m. peak period) 8 westbound (2 during p.m. peak period) ^c	--	--
Average Peak-Period Travel Time Between Downtown Waukesha and Downtown Milwaukee ^d	54-58 minutes	47-48 minutes	44-48 minutes	42-45 minutes
Vehicle Requirements ^e				
Peak Period	8		4	
Off-Peak Period	2		1	

^aIn addition, two, a.m. peak-period eastbound and two, p.m. peak-period westbound trips would be provided between these points over the bus routes operated between Oconomowoc and downtown Milwaukee.

^bWhile county bus service between downtown Waukesha and the Brookfield Square Shopping Center would be eliminated, bus service between these points would be provided by the City of Waukesha transit system.

^cIn addition, one, a.m. peak-period eastbound and one, p.m. peak-period westbound trip would be provided between these points over the bus routes operated between Oconomowoc and downtown Milwaukee.

^dEstimated travel time between downtown Waukesha bus terminal and E. Wisconsin Avenue and N. Jackson Street in downtown Milwaukee.

^eDoes not include spare vehicles.

Source: SEWRPC.

The routing and scheduling changes described above may be expected to have an impact on the number of vehicles that would be required to operate the service provided over Routes No. 1 and 2. It is anticipated that, in comparison to the status quo alternative, four fewer vehicles would be required during the peak periods and one fewer vehicle during the off-peak periods. This reduction would essentially be achieved by adjusting current schedules to combine some vehicle trips having low or moderate volumes of boarding passengers.

As previously noted, the routing changes proposed under this service option would also eliminate county bus service between downtown Waukesha and the Brookfield Square Shopping Center, and between the Brookfield Square Shopping Center area and downtown Milwaukee. However, these changes would benefit passengers traveling over these routes between downtown Waukesha and downtown Milwaukee in the form of reduced travel times. Travel times between downtown

Waukesha and downtown Milwaukee would be reduced by about four minutes on Route No. 2 and 10 minutes on Route No. 1 in comparison to the travel times on these routes under the status quo alternative.

This option also calls for service changes for the City of Waukesha's fixed-route bus system. Specifically, this option proposes that bus service within the Blue Mound Road corridor be provided as part of the City of Waukesha's local transit system, rather as part of the County's commuter bus services. This would be accomplished through extension of one of the City of Waukesha's regular local bus routes--Route No. 1: Westbrook/Target--to directly serve the businesses and commercial establishments along W. Blue Mound Road, terminating at the Brookfield Square Shopping Center. This proposed route extension is shown on Map 24.

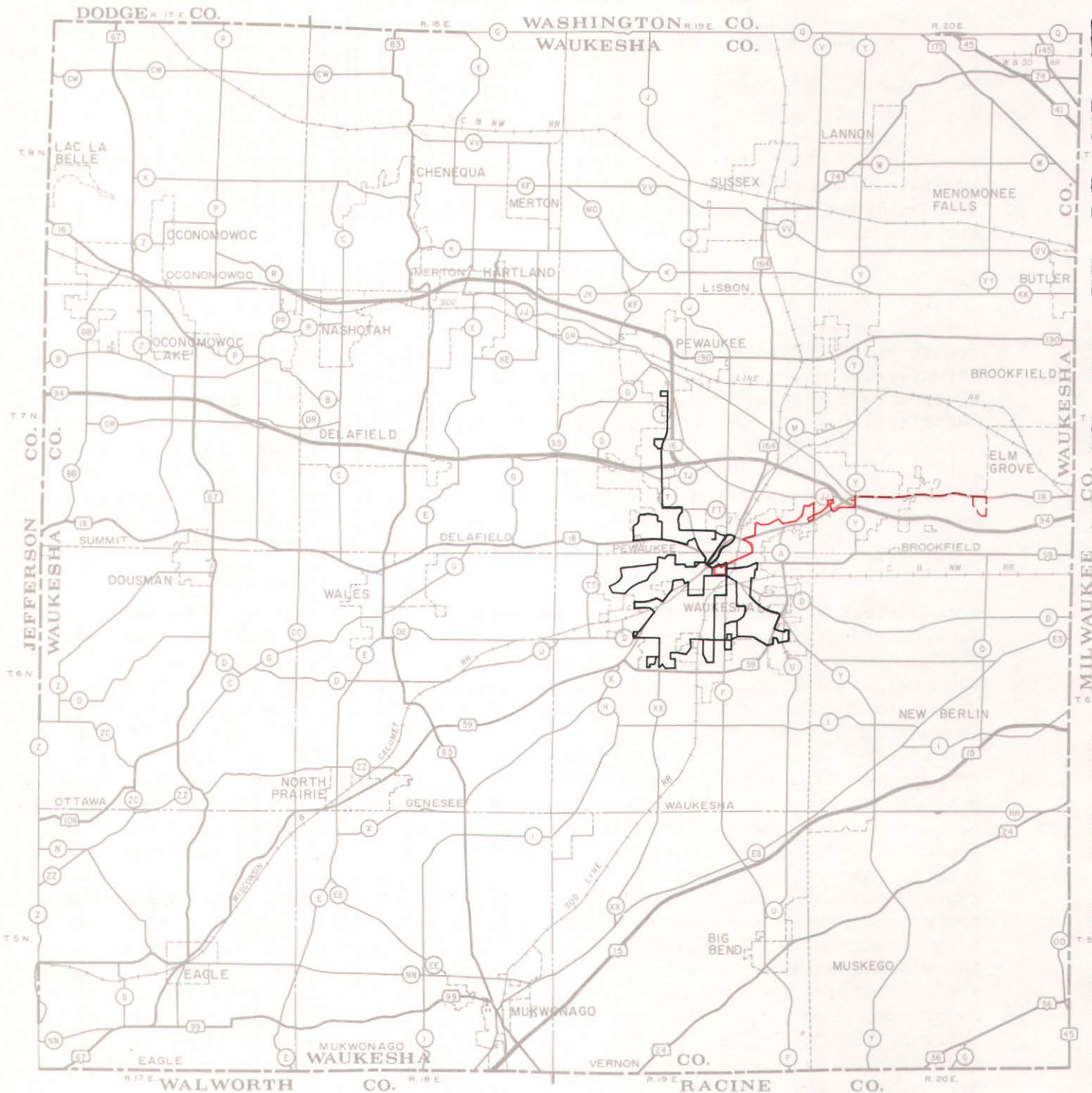
The extension of this city bus route, which currently terminates at the Goerke's Corners public transit station, would add approximately 7.2 round-trip route miles to the current length. Operating headways for the entire route, which currently range from 30 minutes during weekday peak periods to 60 minutes during weekday off-peak periods and on Saturdays, would be reduced to 30 minutes during all times of operation. With the extension of the route, one additional vehicle would be required to operate the route during the weekday afternoon peak period, and two additional vehicles during all other times of operation. An additional \$0.25 zone fare would be charged to all passengers using the route extension, including those using passes or tickets. With this additional zone charge, base cash fares per one-way trip would be \$0.85 for adults, \$0.65 for students age 5 through high school ages, and \$0.55 for senior citizens and disabled persons.

A comparison of selected operating and service characteristics of the existing Waukesha County bus service provided within the Blue Mound Road corridor with the characteristics of the service proposed to be provided by the City of Waukesha fixed-route transit system is presented in Table 66. The hours during which bus service would be provided within the corridor would be curtailed somewhat if provided by the city transit system, as evening service and service on Sundays and holidays would be no longer available. However, during the hours when service would be operated, the city transit system would provide for significantly more scheduled bus trips than are currently provided by the county transit system. Travel time between Waukesha and the Brookfield Square Shopping Center would be somewhat longer on the proposed city bus service than on the existing county bus service. This is because the city bus route provides local bus service with frequent stops, while the county bus route provides an express bus service with more limited stops. For passenger trips that would not require a transfer to or from the city bus routes, the fares charged senior citizens, handicapped persons, and children for city bus service within the corridor would be similar to those currently charged for county bus service, while the adult fares would be about \$0.40 lower than current county bus fares. For passenger trips involving a transfer with another city bus route, city bus fares for adults and students age 13 through high school ages would be about \$0.60 lower than county bus fares.

City bus service as described above could be provided within the Blue Mound Road corridor in either of two ways. One way would be for the City to directly operate the service using the regular equipment and personnel of the city transit system. In lieu of directly operating the service, the City could also contract for the operation of such service with the private transit operator.

Map 24

PROPOSED EXTENSION OF ROUTE NO. 1 OF THE CITY OF WAUKESHA TRANSIT SYSTEM UNDER ALTERNATIVE 5



LEGEND

- EXISTING PORTION OF CITY OF WAUKESHA ROUTE NO. 1 TO BE RETAINED
- PROPOSED EXTENSION OF CITY OF WAUKESHA ROUTE NO. 1
- OTHER CITY BUS ROUTES

Source: SEWRPC.

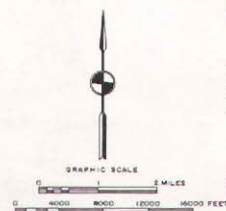


Table 66

**COMPARISON OF SELECTED OPERATING CHARACTERISTICS OF EXISTING
WAUKESHA COUNTY BUS SERVICE PROVIDED WITHIN BLUE MOUND ROAD CORRIDOR
WITH THAT PROPOSED TO BE PROVIDED BY CITY OF WAUKESHA BUS SYSTEM**

Operating Characteristic	Existing Bus Service Provided by Waukesha County Transit System	Bus Service Proposed to Be Provided by City of Waukesha Transit System
Hours of Service ^a		
Weekdays	7:00 a.m. - 9:45 p.m.	6:33 a.m. - 5:35 p.m.
Saturdays	8:15 a.m. - 9:45 p.m.	9:55 a.m. - 5:41 p.m.
Sundays and Holidays	11:15 a.m. - 9:45 p.m.	--
Number of One-Way Bus Trips Between Brookfield Square and: Downtown Waukesha		
Weekdays	23 ^b	42
Saturdays	12 ^b	32
Sundays and Holidays	8 ^b	--
Goerke's Corners Public Transit Station		
Weekdays	15	42
Saturdays	6	32
Sundays and Holidays	2	--
Travel Time Between Brookfield Square Shopping Center and: Downtown Waukesha	22-33 minutes	28-41 minutes
Goerke's Corners Public Transit Station	7 minutes	11 minutes
Base Cash Fares per One-Way Trip ^c		
Adult	\$1.25	\$0.85
Children/Students ^d	0.65	0.65
Senior Citizens and Handicapped Persons	0.60	0.55

^aRepresents times of stops at Brookfield Square Shopping Center.

^bIncludes 12 weekday trips, six Saturday trips, and six Sunday trips provided on Waukesha County Route No. 1 and operated over W. Greenfield Avenue.

^cFares shown assume passengers do not transfer to or from another city bus route. The current total cash fare for a trip between a city bus route and a county bus route for travel between the City of Waukesha and the Brookfield Square Shopping Center—under a special transfer agreement between the Waukesha Transit System Utility and Wisconsin Coach Lines, Inc.—would be \$1.45 for adults, \$1.25 for students ages 13 through high school ages, \$0.65 for students ages 5-12, and \$0.60 for senior citizens and handicapped persons. Transfers between city bus routes are free.

^dFor Waukesha County bus service, fares are for children ages 5-12. For City of Waukesha bus service, fares are for students ages 5 through high school ages.

Source: Waukesha Transit System Utility; Wisconsin Coach Lines, Inc.; and SEWRPC.

Proposals from private transit operators could be considered either for the operation of only the route extension between the Goerke's Corners public transit station and the Brookfield Square Shopping Center, or for the operation of the entire bus route between downtown Waukesha and the Brookfield Square Shopping Center. The extension of local bus service by the City of Waukesha bus system into the Blue Mound Road corridor would require that either a local unit of government or a private sponsor subsidize the costs of the route extension.

The ridership and financial performance of the county transit system under this service option assuming continuation of past trends is shown in Table 67. Under this scenario, there would be a significant decrease in annual transit

Table 67

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 5
ASSUMING A CONTINUATION OF PAST TRENDS: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	216,700	222,600	225,700	228,700
Annual Vehicle Hours						
Revenue	18,800	18,250	11,950	11,950	11,950	12,080
Total	23,615	23,120	14,710	14,710	14,710	14,870
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	18.1	18.6	18.9	18.9
Annual Vehicle Miles						
Revenue	341,800	331,900	248,700	248,700	248,700	251,500
Total	429,500	411,200	287,800	287,800	287,800	291,000
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.87	0.90	0.91	0.91
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$858,900	\$893,200	\$928,900	\$ 976,700
Capital Equipment Element ^a	1,500	88,300	64,500	64,500	64,500	65,300
Total Annual	\$994,500	\$1,205,300	\$923,400	\$957,700	\$993,700	\$1,042,000
Per Revenue Passenger	3.74	4.71	4.26	4.30	4.40	4.56
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.30	\$1.31	\$1.32	\$1.32
Annual Passenger Revenue	\$349,800	\$339,900 ^b	\$281,800	\$292,000	\$297,400	\$ 302,600
Other Revenue	1,200	1,200	0	0	0	0
Total Revenue	\$351,000	\$ 341,100	\$281,800	\$292,000	\$297,400	\$ 302,600
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	30.5	30.5	30.0	29.1
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$135,400 ^c	\$142,600 ^c	\$155,500 ^c	\$ 149,200
Attributable to Capital Assistance ^d	0	81,200	57,500	57,900	58,300	59,400
Subtotal	\$226,900	\$ 264,500	\$192,900	\$200,500	\$213,800	\$ 208,600
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$322,100	\$335,000	\$348,300	\$ 366,300
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	22,200	22,200	22,200	22,500
Subtotal	\$372,400	\$ 450,000	\$344,300	\$357,200	\$370,500	\$ 338,800
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 5,300	\$ 5,300	\$ 5,300	\$ 30,400
Attributable to Private Transit Operator ^f	0	161,850	99,100	102,700	106,400	111,600
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$104,400	\$108,000	\$111,700	\$ 141,000
Total	\$643,500	\$ 864,200	\$641,600	\$665,700	\$696,000	\$ 739,400
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$2.96	\$2.99	\$3.08	\$3.23

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available through the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

ridership on the transit system in 1989 due primarily to the elimination of weekend and holiday service over Routes No. 1 and 2, and the total elimination of bus service between Oconomowoc and Milwaukee over Routes No. 3 and 4. The modifications proposed for Routes 1 and 2 under this option would also result in some reduction in ridership on the county transit system, as express bus service within the Blue Mound Road corridor and serving the Brookfield Square Shopping Center would be eliminated. However, the reductions in transit ridership due to these service changes would be partially offset by the increases in transit ridership between Waukesha and Milwaukee generated by the more direct and faster transit service that would be provided over Routes No. 1 and 2. The improvements in transit service for Waukesha-to-Milwaukee travel would be expected to continue to generate some transit ridership increases on these routes throughout the entire period. With improved ridership on Routes No. 1 and 2, systemwide transit ridership may be expected to gradually increase between 1990 and 1992. By 1992, however, annual transit ridership would still be expected to be about 27,000 revenue passengers, or 11 percent, below 1988 ridership levels. The total operating deficit for the transit system would be expected to decline significantly during 1989 as a result of the reduced operating expenses and improved system efficiency gained through the proposed service cuts and modifications to Routes No. 1 and 2. Between 1990 and 1992, the operating deficit would increase somewhat as a result of increasing operating expenses, with the deficit ultimately reaching about \$739,000 in 1992. This would still represent a reduction of about \$125,000, or about 18 percent, from the total operating deficit for the transit system during 1988 of about \$864,000. Such a reduction would be sufficient to keep the county funds needed to subsidize the operation of the transit system below projected budget limits throughout the entire period under this scenario.

Table 68 presents the ridership and financial performance of the county transit system under this service option assuming a return to high motor fuel prices. Under this scenario, there would also be some drop in annual transit ridership in 1989 with the implementation of the proposed service changes. This would be followed by a steady increase in transit ridership between 1990 and 1992, which would result from the increased attractiveness of transit over automobile travel due to increases in gasoline prices, and by increases in county transit ridership on Routes No. 1 and 2 generated by the improvement in Waukesha-to-Milwaukee transit service over these routes. Under this scenario, annual transit ridership is projected to increase to about 294,000 revenue passengers by 1992, or about 15 percent above projected 1988 ridership levels. The operating deficit for the transit system would also be significantly reduced in 1989 with the implementation of the service changes, then would increase gradually throughout the rest of the period. The operating deficit for the transit system in 1992 of about \$703,000 would still be about \$161,000, or about 19 percent, below the 1988 operating deficit for the transit system. Most importantly, the county funds required to subsidize the operation of the transit system in any year between 1989 and 1992 under this scenario would be expected to be below the projected 1992 budget limits.

The changes proposed under this service option would also be expected to have an impact on the ridership and financial performance of the City of Waukesha transit system. The ridership and financial performance of the City's transit system under this option is presented in Tables 69 and 70 for the scenarios assuming a continuation of past trends and a return to high fuel prices, respectively. Increases in annual transit ridership on the city bus system would be expected under either scenario as a result of the combined effects of extending city bus service to the Brookfield Square Shopping Center, reducing

Table 68

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
WAUKESHA COUNTY TRANSIT SYSTEM UNDER ALTERNATIVE 5
ASSUMING A RETURN TO HIGH MOTOR FUEL PRICES: 1989-1992**

Operating Characteristic	1987 Unaudited	Projected				
		1988	1989	1990	1991	1992
Annual Revenue Passengers	266,200	256,100	230,200	251,700	271,900	294,200
Annual Vehicle Hours						
Revenue	18,810	18,250	11,950	11,950	11,950	12,080
Total	23,620	23,120	14,710	14,710	14,710	14,870
Revenue Passengers per Revenue Vehicle Hour	14.2	14.0	19.3	21.1	22.7	24.4
Annual Vehicle Miles						
Revenue	341,800	331,900	248,700	248,700	248,700	251,500
Total	429,500	411,200	287,800	287,800	287,800	291,000
Revenue Passengers per Revenue Vehicle Mile	0.78	0.77	0.93	1.01	1.09	1.17
Operating Expenses						
Operations/Maintenance Element	\$993,000	\$1,117,000	\$872,000	\$920,800	\$ 972,200	\$1,037,800
Capital Equipment Element ^a	1,500	88,300	64,500	64,500	64,500	65,300
Total Annual	\$994,500	\$1,205,300	\$936,500	\$985,300	\$1,036,700	\$1,103,100
Per Revenue Passenger	3.74	4.71	4.07	3.91	3.81	3.75
Operating Revenue						
Per Passenger	\$1.31	\$1.33	\$1.31	\$1.33	\$1.35	\$1.36
Annual Passenger Revenue	\$349,800	\$ 339,900 ^b	\$301,600	\$334,800	\$ 365,800	\$ 399,700
Other Revenue	1,200	1,200	0	0	0	0
Total Revenue	\$351,000	\$ 341,100	\$301,600	\$334,800	\$ 365,800	\$ 399,700
Percent of Expenses Recovered Through Operating Revenues	35.3	28.3	32.2	34.0	35.3	36.2
Operating Deficit						
Federal Share						
Attributable to Operating Assistance	\$226,900	\$ 183,300	\$122,300 ^c	\$114,100 ^c	\$ 109,400 ^c	\$ 108,700 ^c
Attributable to Capital Assistance ^d	0	81,200	57,700	58,200	58,700	60,000
Subtotal	\$226,900	\$ 264,500	\$180,000	\$172,300	\$ 168,100	\$ 168,700
State Share						
Attributable to Regular Operating Expenses	\$372,400	\$ 418,900	\$327,000	\$345,300	\$ 364,600	\$ 389,200
Attributable to Expenses for Capital Equipment Charged by Private Operators ^e	0	31,100	22,200	22,200	22,200	22,500
Subtotal	\$372,400	\$ 450,000	\$349,200	\$367,500	\$ 386,800	\$ 411,700
Local Share						
Attributable to Waukesha County	\$ 44,200	\$ 16,000	\$ 5,300	\$ 5,300	\$ 5,300	\$ 5,400
Attributable to Private Transit Operator ^f	0	161,850	100,400	105,400	110,700	117,600
Other	0	-28,150 ^g	0	0	0	0
Subtotal	\$ 44,200	\$ 149,700	\$105,700	\$110,700	\$ 116,000	\$ 123,000
Total	\$643,500	\$ 864,200	\$634,900	\$650,500	\$ 670,900	\$ 703,400
Total Deficit per Revenue Passenger	\$2.42	\$3.37	\$2.76	\$2.58	\$2.47	\$2.39

^aRepresents depreciation on capital equipment and facilities charged by public and private transit operators under contract with Waukesha County.

^bIncludes an estimated \$28,150 in additional passenger revenues not included by transit operators during negotiations for 1988 service contracts. Such revenues are expected to result from fare increases implemented during 1988, and from higher ridership projections than what were assumed by transit operators. Such additional passenger revenues would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County.

^cRepresents less than the full amount of federal transit operating assistance potentially available to Waukesha County.

^dUMTA formula Section 9 capital assistance funds made available through the UMTA capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead capital expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^eAssumes that state urban mass transit operating assistance will be available to pay 37.5 percent of the private operator's expenses related to depreciation of equipment and facilities used in operating Routes No. 1, 2, 3, and 4.

^fRepresents that portion of total operating expenses for Routes No. 1, 2, 3, and 4 which is assumed to be funded by the current private transit operator based upon its contract with Waukesha County for 1988. In its 1988 contract with the County, the private operator agreed to absorb that portion of the total operating expenses for Routes No. 1, 2, 3, and 4 which would not be covered by operating revenues or federal, state, or local operating assistance funds. For 1989 through 1992, it has been assumed that the private operator will continue to absorb a similar proportion of the total operating expenses for Routes No. 1, 2, 3, and 4.

^gRepresents additional passenger revenues accruing directly to contract transit operators as noted in footnote b which cannot be used by Waukesha County to reduce operating deficits for contract transit services. For 1988, such revenues are estimated to include \$13,100 attributable to Routes No. 1, 2, 3, and 4 and \$15,050 attributable to Route No. 79.

Source: SEWRPC.

Table 69

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE
CITY OF WAUKESHA TRANSIT SYSTEM UNDER ALTERNATIVE 5
ASSUMING A CONTINUATION OF PAST TRENDS: 1989-1992**

Operating Characteristic	1986 Actual	1987 Unaudited	Projected 1988-1992						
			With Existing Transit System			Incremental Change		With Proposed Service Changes for Route No. 1: Westbrook/Target	
			1988	1989	1992	1989	1992	1989	1992
Annual Revenue Passengers	381,900	347,300	354,200	343,500	334,600	34,100	58,500	377,600	393,100
Annual Vehicle Hours									
Revenue	27,630	27,300	28,750	28,500	28,740	4,520	4,580	33,020	33,320
Total	30,100	29,600	31,170	30,900	31,170	4,910	4,970	35,810	36,140
Revenue Passengers per Revenue Vehicle Hour	13.8	12.7	12.3	12.1	11.6	7.5	12.8	11.4	11.8
Annual Vehicle Miles									
Revenue	403,100	389,400	395,300	391,800	395,100	71,200	71,600	463,000	466,700
Total	436,750	431,500	428,600	424,900	428,400	73,800	74,300	498,700	502,700
Revenue Passengers per Revenue Vehicle Mile	0.95	0.89	0.90	0.88	0.85	0.48	0.82	0.82	0.84
Operating Expenses									
Total Annual	\$931,600	\$962,000	\$1,053,000	\$1,086,200	\$1,231,600	\$105,400	\$119,600	\$1,191,600	\$1,351,200
Per Revenue Passenger	2.44	2.77	2.97	3.16	3.68	3.09	2.04	3.16	3.44
Operating Revenue ^a									
Per Passenger	\$0.45	\$0.44	\$0.44	\$0.44	\$0.44	\$0.59	\$0.60	\$0.45	\$0.46
Annual Passenger Revenue	\$169,900	\$153,000	\$ 156,000	\$ 151,300	\$ 147,300	\$ 20,200	\$ 34,900	\$ 171,500	\$182,200
Other Revenue	6,200	6,600	6,000	6,000	6,000	0	0	6,000	6,000
Total Revenue	\$176,100	\$159,600	\$ 162,000	\$ 157,300	\$ 153,300	\$ 20,200	\$ 34,900	\$ 177,500	\$ 188,200
Percent of Expenses Recovered Through Operating Revenues	18.9	16.6	15.4	14.5	12.4	19.2	29.2	14.9	13.9
Operating Deficit									
Federal Share	\$206,000	\$226,900	\$ 183,300	\$ 174,100	\$ 149,200	\$ 0	\$ 0	\$ 174,100	\$ 149,200
State Share	348,900	360,500	394,900	407,300	461,900	39,600	44,800	446,900	506,700
Local Share	200,600	215,000	312,800	347,500	467,200	45,600	39,900	393,100	507,100
Total	\$755,500	\$802,400	\$ 891,000	\$ 928,900	\$1,078,300	\$ 85,200	\$ 84,700	\$1,014,100	\$1,163,000
Total Deficit per Revenue Passenger	\$1.98	\$2.31	\$2.52	\$2.70	\$3.22	\$2.50	\$1.45	\$2.69	\$2.96

^aAssumes no increase in passenger fares over the planning period.

Source: SEWRPC.

weekday off-peak and Saturday headways over the entire length of the extended city bus route, and improving connections and travel times for passengers transferring between the city and county bus systems in downtown Waukesha. Assuming a continuation of past trends, annual transit ridership on the city bus system would be expected to increase to about 393,000 revenue passengers by 1992, or by about 10 percent over the projected 1988 ridership level of about 354,000 revenue passengers. Assuming a return to high motor fuel prices, annual transit ridership would be expected to increase to about 453,000 revenue passengers by 1992, or by about 28 percent over projected 1988 ridership levels. These projected 1992 ridership levels would be from 58,000 to 62,000 revenue passengers higher than would be expected by 1992 if the City were to maintain the existing transit system.

Projections made by the Commission staff for the city transit system during 1988 include total operating expenses of about \$1,053,000, a total operating deficit of about \$891,000, and a local funding requirement of about \$313,000. By 1992, assuming implementation of the proposed service changes with a continuation of past trends, total operating expenses for the city bus system

Table 70

ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE FOR THE CITY OF WAUKESHA TRANSIT SYSTEM UNDER ALTERNATIVE 5 ASSUMING A RETURN TO HIGH MOTOR FUEL PRICES: 1989-1992

Operating Characteristic	1986 Actual	1987 Unaudited	Projected 1988-1992						
			With Existing Transit System			Incremental Change		With Proposed Service Changes for Route No. 1: Westbrook/Target	
			1988	1989	1992	1989	1992	1989	1992
Annual Revenue Passengers	381,900	347,300	354,200	363,000	390,900	33,000	62,200	396,000	453,100
Annual Vehicle Hours Revenue	27,630	27,310	28,750	28,500	28,740	4,520	4,580	33,020	33,320
Total	30,100	29,620	31,170	30,900	31,170	4,910	4,970	35,810	36,140
Revenue Passengers per Revenue Vehicle Hour	13.8	12.7	12.3	12.7	13.6	7.3	13.6	12.0	13.6
Annual Vehicle Miles Revenue	403,100	389,400	395,300	391,800	395,100	71,200	71,600	463,000	466,700
Total	436,750	431,500	428,600	424,900	428,400	73,800	74,300	498,700	502,700
Revenue Passengers per Revenue Vehicle	0.95	0.89	0.90	0.93	0.99	0.46	0.87	0.86	0.97
Operating Expenses Total Annual	\$931,600	\$962,000	\$1,053,000	\$1,096,100	\$1,279,600	\$106,400	\$124,300	\$1,202,500	\$1,403,900
Per Revenue Passenger	2.44	2.77	2.97	3.02	3.27	3.22	2.00	3.04	3.10
Operating Revenue ^a Per Passenger	\$0.45	\$0.44	\$0.44	\$0.44	\$0.44	\$0.62	\$0.67	\$0.46	\$0.47
Annual Passenger Revenue	\$169,900	\$153,000	\$ 156,000	\$ 159,900	\$ 172,200	\$ 20,400	\$ 41,500	\$ 180,300	\$ 213,700
Other Revenue	6,200	6,600	6,000	6,000	6,000	0	0	6,000	6,000
Total Revenue	\$176,100	\$159,600	\$ 162,000	\$ 165,900	\$ 178,200	\$ 20,400	\$ 41,500	\$ 186,300	\$ 219,700
Percent of Expenses Recovered Through Operating Revenues	18.9	16.6	15.4	15.1	13.9	19.2	33.4	15.5	15.6
Operating Deficit Federal Share	\$206,000	\$226,900	\$ 183,300	\$ 174,100	\$ 149,200	\$ 0	\$ 0	\$ 174,100	\$ 149,200
State Share	348,900	360,500	394,900	411,000	479,900	39,900	46,600	450,900	526,500
Local Share	200,600	215,000	312,800	345,100	472,300	46,100	36,200	391,200	508,500
Total	\$755,500	\$802,400	\$ 891,000	\$ 930,200	\$1,101,400	\$ 86,000	\$ 82,800	\$1,016,200	\$1,184,200
Total Deficit per Revenue Passenger	\$1.98	\$2.31	\$2.52	\$2.56	\$2.82	\$2.61	\$1.33	\$2.57	\$2.61

^a Assumes no increase in passenger fares over the planning period.

Source: SEWRPC.

would be expected to increase by 28 percent to about \$1,351,000; the total operating deficit would be expected to increase by 31 percent to about \$1,163,000; and the local funding requirement would be expected to increase by 62 percent to about \$507,000. These would represent increases of about \$120,000 in operating expenses, \$85,000 in the operating deficit, and \$40,000 in the local funding requirement over the expenditures that be required in 1992 to maintain the operation of the existing city bus system. Assuming implementation of the proposed service changes with a return to high motor fuel prices, operating expenses for the city transit system would be expected to increase by 33 percent to about \$1,404,000; the operating deficit would be expected to increase by 33 percent to about \$1,184,000; and the local funding requirement for the transit system would be expected to increase by 63 percent to about \$509,000 by 1992. These would represent increases in operating expenses of about \$124,000, in the operating deficit of about \$83,000, and in the local funding requirement for the transit system of about \$36,000 when compared to 1992 projections for the existing city transit system.

Under either scenario, the City of Waukesha would ultimately need to acquire additional equipment should it decide to directly operate the extension of Route No. 1 of the city bus system rather than contract for its operation with a private operator. The City could also decide to purchase equipment for lease to a contract operator should it decide to contract out the proposed service. Based upon the projected operating characteristics of the proposed route extension, one additional bus would need to be acquired, at an estimated cost of \$147,500. Assuming that federal transit capital assistance funds will be available to fund 80 percent, or \$118,000, of the total cost of the vehicles, the remaining 20 percent, or \$29,500, would need to be funded by the City of Waukesha.

It should be noted that the projected incremental operating expenses for the proposed service changes to the City of Waukesha transit system, as discussed above, are based upon the projected marginal costs for the proposed service changes, rather than on projected systemwide average total costs. In this respect, the projected incremental operating expenses represent only those expenditures that the transit system would expect to incur in extending the route to serve the Brookfield Square Shopping Center, and in operating the route with reduced headways. Such expenses would be expected to include only those for drivers and materials and supplies used in actually operating the additional city bus service; those for leasing an additional bus for operation on the route; those for additional insurance; those for expanding the service area of the City's specialized transportation program for handicapped persons to include the area served by the route extension; and those for advertising and promotion of the additional city bus service.

It should also be noted that the preceding discussion assumed that federal transit operating assistance funds available for Waukesha County transit services would continue to be divided equally between Waukesha County and the City of Waukesha, as has been mutually agreed by both parties in the past. If the service changes for the Waukesha County transit system proposed under this option are implemented, Waukesha County may, in some years during the 1989-1992 period, require less than the full amount of federal transit operating assistance assumed to be available for its transit system. In that event, Waukesha County could make the federal transit operating assistance funds that it would not need for its transit system available for use by the city public transit system. These additional federal funds, if available, would reduce the additional local costs of the transit service changes proposed for the city transit system under this option. Based upon the projections presented in Tables 67 and 68 for the Waukesha County transit system, federal transit operating assistance ranging from \$2,600 to \$53,000 could be made available by Waukesha County for the city public transit system during the period.

Alternative Evaluation and Recommendations

A comparative evaluation of the alternative transit service options for the period 1989 through 1992 is presented in Table 71. The comparative evaluation was conducted based upon information concerning proposed reductions in transit service levels, projected annual ridership levels, the projected efficiency and effectiveness of the transit system, and the projected operating costs and deficits for the transit system.

The differences among the alternative transit service options are presented in the table for four of the five alternatives considered. The alternative that

Table 71

COMPARATIVE EVALUATION OF ALTERNATIVE SERVICE OPTIONS FOR THE WAUKESHA COUNTY TRANSIT SYSTEM: 1989-1992

Evaluation Criteria	Alternative Service Options for 1988-1992 ^a											
	Alternative 1 Retain 1988 Budgeted Transit Services			Alternative 2 Preliminary SEWRPC Staff Recommended Service Proposal			Alternative 4 Private Operator Proposal To Eliminate Route No. 10			Alternative 5 City of Waukesha Proposal to Restructure Routes No. 1 and 2		
Reduction in Service • Reduction in Annual Revenue Vehicle Miles	--			-82,000 miles (25 percent)			-26,300 miles (8 percent)			-80,900 miles (25 percent)		
• Changes in the Number of Scheduled Bus Trips Between Stops by Route: ^b	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays</u>	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays</u>	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays</u>	<u>Weekdays</u>	<u>Saturdays</u>	<u>Sundays</u>
Routes No. 1 and 2 Between: Downtown Waukesha and Milwaukee CBD												
via Greenfield Avenue	-- (17)	-- (6)	-- (6)	-2 (15)	-6 (0)	-6 (0)	-3 (14)	2 (8)	-2 (4)	-13 (4)	-6 (0)	-6 (0)
via Blue Mound Road/IH 94	-- (11)	-- (6)	-- (2)	-- (11)	-6 (0)	-2 (0)	-5 (6)	-6 (0)	-2 (0)	-11 (0)	-6 (0)	-2 (0)
via Blue Mound Road/ Wisconsin Avenue	-- (2)	-- (0)	-- (0)	-2 (0)	-- (0)	-- (0)	9 (11)	8 (8)	4 (4)	-2 (0)	-- (0)	-- (0)
via IH 94	-- (1)	-- (0)	-- (0)	-- (1)	-- (0)	-- (0)	-- (1)	-- (0)	-- (0)	30 (31)	-- (0)	-- (0)
Total Bus Trips	-- (31)	-- (6)	-- (8)	-4 (27)	-12 (0)	-8 (0)	1 (32)	4 (16)	-- (8)	4 (35)	-12 (0)	-8 (0)
Goerke's Corners and Milwaukee CBD												
via Blue Mound Road/IH 94	-- (11)	-- (6)	-- (2)	-1 (10)	-6 (0)	-2 (0)	-3 (8)	-6 (0)	-2 (0)	-11 (0)	-6 (0)	-2 (0)
via Blue Mound Road/ Wisconsin Avenue	-- (2)	-- (0)	-- (0)	-2 (0)	-- (0)	-- (0)	9 (11)	8 (8)	4 (4)	-2 (0)	-- (0)	-- (0)
via IH 94	-- (1)	-- (0)	-- (0)	-- (1)	-- (0)	-- (0)	-- (1)	-- (0)	-- (0)	30 (31)	-- (0)	-- (0)
Total Bus Trips	-- (31)	-- (6)	-- (2)	-3 (11)	-6 (0)	-2 (0)	6 (20)	2 (8)	2 (4)	17 (31)	-6 (0)	-2 (0)
Brookfield Square and Milwaukee CBD												
via Greenfield Avenue	-- (19)	-- (12)	-- (8)	-2 (17)	-12 (0)	-8 (0)	-10 (9)	-4 (8)	-4 (4)	-19 (0)	-12 (0)	-8 (0)
via IH 94	-- (7)	-- (0)	-- (0)	-- (7)	-- (0)	-- (0)	-2 (5)	-- (0)	-- (0)	-7 (0)	-- (0)	-- (0)
via Blue Mound Road/ Wisconsin Avenue	-- (2)	-- (0)	-- (0)	-2 (0)	-- (0)	-- (0)	9 (11)	8 (8)	4 (4)	-2 (0)	-- (0)	-- (0)
Total Bus Trips	-- (28)	-- (12)	-- (8)	-4 (24)	-12 (0)	-8 (0)	-3 (25)	4 (16)	-- (8)	-28 (0)	-12 (0)	-8 (0)
Downtown Waukesha and Brookfield Square												
via Greenfield Avenue	-- (12)	-- (6)	-- (6)	-2 (10)	-6 (0)	-6 (0)	-3 (9)	2 (8)	-2 (4)	-12 (0)	-6 (0)	-6 (0)
via Blue Mound Road	-- (11)	-- (6)	-- (2)	-2 (9)	-6 (0)	-2 (0)	5 (16)	2 (8)	2 (4)	-11 (0) ^c	-6 (0) ^c	-2 (0) ^c
Total Bus Trips	-- (23)	-- (12)	-- (8)	-4 (19)	-12 (0)	-8 (0)	2 (25)	4 (16)	-- (8)	-23 (0)	-12 (0)	-8 (0)
Routes No. 3 and 4 Between: Oconomowoc and Milwaukee CBD	-- (4)	-- (0)	-- (0)	-4 (0)	-- (0)	-- (0)	-- (4)	-- (0)	-- (0)	-4 (0)	-- (0)	-- (0)
Goerke's Corners and Milwaukee CBD	-- (4)	-- (0)	-- (0)	-1 (3)	-- (0)	-- (0)	-- (4)	-- (0)	-- (0)	-4 (0)	-- (0)	-- (0)
Route No. 10 Between Brookfield Square and Milwaukee CBD	-- (42)	-- (32)	-- (0)	-- (42)	-- (32)	-- (0)	-42 (0)	-32 (0)	-- (0)	-- (42)	-- (32)	-- (0)
Route No. 79 Between Menomonee Falls and Milwaukee CBD	-- (8)	-- (0)	-- (0)	-- (8)	-- (0)	-- (0)	-- (8)	-- (0)	-- (0)	-- (8)	-- (0)	-- (0)

Table 71 (continued)

Evaluation Criteria	Alternative Service Options for 1988-1992 ^a							
	Alternative 1 Retain 1988 Budgeted Transit Services		Alternative 2 Preliminary SEWRPC Staff Recommended Service Proposal		Alternative 4 Private Operator Proposal To Eliminate Route No. 10		Alternative 5 City of Waukesha Proposal to Restructure Routes No. 1 and 2	
	Based on Past Trends	Under High Fuel Prices	Based on Past Trends	Under High Fuel Prices	Based on Past Trends	Under High Fuel Prices	Based on Past Trends	Under High Fuel Prices
Ridership • Change from 1988 Revenue Passengers: In 1989 In 1992	-5,000 (-2%) -11,400 (-4%)	11,000 (4%) 489,100 (19%)	-34,800 (-14%) -40,300 (-16%)	-21,400 (-8%) 7,800 (3%)	-53,700 (-21%) -60,000 (-23%)	-39,300 (-15%) -6,500 (-3%)	-39,400 (-15%) -27,400 (-11%)	-25,900 (-10%) 38,100 (15%)
Efficiency Effectiveness • Revenue Passengers per Revenue Vehicle Hour in 1992 • Revenue Passengers per Revenue Vehicle Mile in 1992 • Percentage Service Change/Percentage Ridership Change in 1989 • Percent of Operating Expenses Recovered from Operating Revenues in 1992	13.4 0.74 0/-2 23.1	16.7 0.91 0/4 27.8	15.2 0.86 -25/-14 24.6	18.6 1.06 -25/-8 28.8	13.2 0.64 -8/-21 23.3	16.8 0.82 -8/-15 28.4	18.9 0.91 -25/-15 29.1	24.4 1.17 -25/-10 36.2
Cost and Deficit (1992) • Total Operating Expenses • Total Operating Revenues • Total Operating Deficit • Federal Share of Deficit Operating Assistance Capital Assistance Total • State Share of Deficit • Local Share of Deficit Attributable to County Attributable to Other Sources Total • Total Deficit per Revenue Passenger	\$1,398,600 323,700 1,074,900 \$ 149,200 83,700 \$ 232,900 \$ 522,500 \$ 152,300 167,200 \$ 319,500 \$4.39	\$1,479,400 411,000 1,068,400 \$ 149,200 84,600 \$ 233,800 \$ 552,800 \$ 105,600 176,200 \$ 281,800 \$3.51	\$1,126,600 277,100 849,500 \$ 149,200 65,600 \$ 214,800 \$ 420,500 \$ 89,400 124,800 \$ 214,200 \$3.94	\$1,192,400 343,200 849,200 \$ 149,200 66,300 \$ 215,500 \$ 445,200 \$ 57,000 131,500 \$ 188,500 \$3.22	\$1,236,100 287,500 948,600 \$ 149,200 84,800 \$ 234,000 \$ 461,700 \$ 83,400 169,500 \$ 252,900 \$4.84	\$1,303,700 370,100 933,600 \$ 149,200 85,700 \$ 234,900 \$ 487,100 \$ 32,900 178,700 \$ 211,600 \$3.74	\$1,042,000 302,600 739,400 \$ 149,200 59,400 \$ 208,600 \$ 388,800 \$ 30,400 111,600 \$ 141,000 \$3.23	\$1,103,100 399,700 703,400 \$ 108,700 ^d 60,000 \$ 168,700 \$ 410,900 \$ 5,400 117,600 \$ 123,000 \$2.39

^aData presented are for the Waukesha County transit system only. Under Alternative 5, service changes are also proposed for the City of Waukesha local transit system, which would impact its performance. Information on the projected impacts of Alternative 5 on the City's transit system is presented in Tables 69 and 70. No information has been provided for Alternative 3, which proposed county purchase of a fleet of buses for lease back to a private transit operator to provide contract transit service. This alternative was dismissed as being not viable, based upon information which indicated there would be no significant advantages for Waukesha County under the alternative.

^bThe information presented is in the following format: change in one-way bus trips between stops (total remaining one-way bus trips between stops).

^cWhile county bus service between these points would be eliminated under this alternative, a total of 42 and 32 one-way bus trips on weekdays and Saturdays, respectively, would be provided by the City of Waukesha local transit system.

^dRepresents less than the full amount of federal operating assistance potentially available to Waukesha County.

Source: SEWRPC.

has been omitted from this table is that proposing county purchase of a fleet of transit buses for lease back to a private operator to provide contract transit services. This alternative was dropped on the basis of the information presented in a previous section of this chapter which indicated that there would be only minimal reasons at best for Waukesha County to pursue the purchase of a bus fleet. In this respect, the availability of federal and state aids to cover depreciation costs charged to Waukesha County by private operators for contract transit services, coupled with the continued flexibility allowed for transit service levels under current contract arrangements, was found to outweigh the possible advantage of lower operating costs with county ownership of revenue vehicles.

A second alternative service option which may be dismissed from further consideration is Alternative 1, which proposes the continued operation of the county transit services included in the 1988 transit system operating budget. Based upon its projected financial performance, it may be concluded that this alternative, which represents the baseline or status quo alternative for the Waukesha County transit system, is not a viable alternative for the period 1989 through 1992 if county funds for subsidizing the operation of the transit system continue to be limited. The county funds required to subsidize the operation of the transit system under this alternative would exceed the anticipated county funding limits by 1990 under both future scenarios. In addition, this alternative would retain without change services that had been determined to be ineffective--in terms of ridership carried compared to service cost--by the performance evaluation of the transit system.

Of the remaining three alternative service options considered, each proposed some reduction from 1988 transit service levels in order to reduce county subsidy levels for the transit system to below those required for the status quo alternative. The smallest cutback from 1988 transit service levels would occur if Alternative 4 were implemented. This alternative proposes eliminating Route No. 10 within Waukesha County and modifying selected bus trips currently operated over Routes No. 1 and 2 to essentially duplicate the routing used by Route No. 10 within Waukesha and Milwaukee Counties. The modifications proposed under this alternative would entail shifting bus trips that currently operate over Greenfield Avenue or IH 94 between Brookfield Square and the Milwaukee central business district to operation over W. Blue Mound Road and W. Wisconsin Avenue, using a routing similar to that of Route No. 10.

With these modifications, transit service levels on the county transit system would be reduced by about 8 percent as measured by the change in revenue vehicle miles of service provided. When compared with Alternative 1, Alternative 4 would, by 1992, result in reductions of about 12 percent in total system operating expenses, 12 to 13 percent in the total system operating deficit, and 45 to 68 percent in the county funding requirement. These reductions would enable the County to remain within the projected 1992 budget limits for the transit system under the scenario assuming high motor fuel prices, but would still result in a county funding requirement that significantly exceeds projected 1992 budget limits should past trends continue.

The service modifications proposed under Alternative 4 would also be expected to have some negative impacts on overall system efficiency and effectiveness. The service proposed for elimination was identified in the performance evaluation as performing well above system average effectiveness levels in terms of

cost per passenger and deficit per passenger. While the 8 percent reduction in service levels which would be implemented in 1989 would result in reductions in operating expenses of 12 percent, the percentage reduction in ridership would be about 50 percent greater, or about 15 to 21 percent. In addition, the total operating deficit per revenue passenger for the transit system in 1992 would be projected to range from \$3.74 to \$4.84 under this alternative, compared with a deficit per passenger ranging from \$3.51 to \$4.39 per revenue passenger under the status quo alternative. These figures would suggest that the transit services dropped under this alternative were more effective than the services retained. This suggestion is also borne out by a comparison of the projected productivity of the transit system under Alternative 4 with that of the transit system under Alternative 1. The productivity of the transit system, as measured by the number of revenue passengers carried per unit of transit service provided, would be projected to decrease under Alternative 4. Consequently, if improving the effectiveness and efficiency of the transit system is of equal importance to keeping within budget limits as a goal of the study, Alternative 4 should not be considered for implementation.

Both Alternative 2 and Alternative 5 propose cutbacks from 1988 transit service levels which would be significantly larger than the cutbacks proposed under Alternative 4. Alternative 2 proposes that the service cuts included in the preliminary staff-recommended service options for calendar year 1988 that were not implemented as part of the 1988 transit budget be implemented by Waukesha County. Under this alternative, weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center over Route No. 2 would be reduced; weekday late evening bus service between Waukesha and downtown Milwaukee over Route No. 1 would be eliminated; all weekend and holiday bus service between Waukesha and Milwaukee on Routes No. 1 and 2 would be eliminated; all Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4 would be eliminated; and bus service between the Goerke's Corners public transit station and downtown Milwaukee over Routes No. 2 and 4 would be reduced.

The combined effect of implementing all these service changes would be a reduction of approximately 25 percent in the annual revenue vehicle miles of service provided by the Waukesha County transit system. However, the service reductions would result in only 8 to 14 percent reductions in annual transit ridership in 1989. Consequently, productivity levels on the transit system would be expected to increase by 11 to 16 percent by 1992 over those projected under Alternative 1.

The service cutbacks proposed under Alternative 2 would have a greater impact upon transit system financial performance than those proposed under Alternative 4. Transit system operating expenses would be reduced by 19 percent by 1992 under Alternative 2, but only by 12 percent under Alternative 4; and the total transit system operating deficit would be reduced by 21 percent under Alternative 2, but only by 12 to 13 percent under Alternative 4. In addition, the total operating deficit per passenger under Alternative 2 would be expected to range from \$3.20 to \$3.94--8 to 10 percent below the deficit projected under Alternative 1, and 14 to 19 percent below that projected under Alternative 4. Alternative 2 would, however, fall short of the goal of staying within projected county budget limits for the transit system, as by 1992 the projected county funding requirement would range from \$57,000 to \$89,000 under this alternative, or from 28 to 100 percent over the projected 1992 budget limit of approximately \$44,600.

Alternative 5, like Alternative 2, proposes that transit service levels be reduced by approximately 25 percent beginning in 1989. As under Alternative 2, this would be accomplished primarily by eliminating existing transit services found to be ineffective in the transit system performance evaluation documented in Chapter VI of this report. The service reductions under Alternative 5 would include the elimination of weekend and holiday service between Waukesha and Milwaukee on Routes No. 1 and 2 and the elimination of weekday peak-period service between Oconomowoc and downtown Milwaukee over Routes No. 3 and 4. In addition, weekday bus service between Waukesha and Milwaukee over Routes No. 1 and 2 would be substantially restructured to provide for more direct, high-speed rapid transit service between Waukesha and Milwaukee. This would be accomplished by modifying both Routes No. 1 and 2 to increase the portion of the routes that would be operated in nonstop service over IH 94. Modifications to these county bus routes would include eliminating service on Route No. 1 over W. Greenfield Avenue within the City of West Allis and eliminating service on Route No. 2 over W. Blue Mound Road east of the Goerke's Corners public transit station. While bus service over Route No. 2 using Greenfield Avenue would be reduced from 17 one-way bus trips throughout the day to four peak-period, peak-direction bus trips, bus service over Route No. 2 would be expanded from 14 one-way bus trips to 31 one-way bus trips, with all the bus trips operating exclusively over IH 94 east of the Goerke's Corners public transit station, compared with only one bus trip on Route No. 2 operating exclusively over IH 94 under the 1988 service schedules. In total, the number of scheduled bus trips operating between downtown Waukesha and the Goerke's Corners public transit station and the Milwaukee central business district would be increased from the 31 bus trips included in the 1988 schedules for Routes No. 1 and 2 to 35 bus trips under Alternative 5.

Like Alternative 2, Alternative 5 would improve the overall effectiveness and efficiency of the Waukesha County transit system. The 25 percent cutback in transit services to be implemented in 1989 would result in a reduction in 1989 ridership levels of between 10 and 15 percent, which would be similar to ridership reductions projected under Alternative 2. However, unlike under Alternative 2, under Alternative 5 ridership would increase between 1989 and 1992 under both scenarios. The projected ridership increases may be directly attributed to the actual and perceived improvements in transit service between Waukesha and the Goerke's Corners public transit station and downtown Milwaukee which would result from improved travel times, from more direct routing, and from increased service levels. With the proposed service changes and projected increases in transit ridership, the transit system would be expected to realize increases in the revenue passengers carried per revenue vehicle hour of 24 to 31 percent over those projected for Alternative 2, and 41 to 46 percent over those projected for Alternative 1. Increases in the number of revenue passengers carried per revenue vehicle mile would range from 6 to 10 percent over those projected for Alternative 2, and from 23 to 29 percent over those projected for Alternative 1.

The financial performance of the county transit system would also be superior under Alternative 5. By 1992, the service changes proposed under Alternative 5 would be expected to reduce total operating expenses for the county transit system by about 25 percent from those projected under Alternative 1 and, coupled with increases in ridership and passenger revenues, would be expected to reduce the total operating deficit for the transit system by 31 to 34 percent. The operating deficit per revenue passenger under Alternative 5 would also be significantly reduced by 1992 and would range from \$2.39 to \$3.23.

This would represent a reduction of 18 to 26 percent from the deficit per passenger under Alternative 2, and 26 to 32 percent from that under Alternative 1. Most importantly, under Alternative 5 the required county funding level for the transit system would, by 1992, be reduced by 80 to 95 percent from the level projected under the status quo alternative. This reduction would enable the County to stay within the projected county budget limits for the transit system during the entire 1989 to 1992 period.

Based upon its projected impacts on the county transit system, Alternative 5 would appear to be superior to the other transit service alternatives. However, consideration must also be given to the potential impact of this alternative on the City of Waukesha public transit system. The service changes proposed under Alternative 5 for Routes No. 1 and 2 of the county transit system would result in the elimination of county bus service within the Blue Mound Road corridor between the City of Waukesha and the Brookfield Square Shopping Center. To replace this service, the alternative proposes that the City of Waukesha extend a route of its local bus system, which currently terminates at the Goerke's Corners public transit station, to the Brookfield Square Shopping Center over W. Blue Mound Road. In addition to extending the local bus route, operating headways over the entire length of the route would be reduced during weekday off-peak periods and all day Saturdays from 60 minutes to 30 minutes.

One benefit of these service changes would be the elimination of a modest duplication of existing bus services, and the potential for a substantial duplication of bus service in the near future, within a portion of the Blue Mound Road corridor. At the present time, both the city and county transit systems operate routes which provide local or express transit service between downtown Waukesha and the Goerke's Corners public transit station, with the city bus route terminating at Goerke's Corners and the county bus route continuing on to the Brookfield Square Shopping Center and, ultimately, the Milwaukee central business district. With the proposed service changes, a single route would provide the bus service in the corridor both within the City and between the City and the Brookfield Square Shopping Center. A county bus route would still operate between downtown Waukesha and Goerke's Corners, but it would be serving trips made between Waukesha and downtown Milwaukee.

The proposed service changes for the City's local bus system would be expected to have a positive impact on the ridership of the local bus system, as by 1992 annual transit ridership levels on the city bus system would be expected to increase by 16 to 17 percent over the ridership levels that were projected for the existing transit system. However, along with the increased ridership there would be an increase in both the operating costs and deficits of the city transit system. With the implementation of the proposed service changes, operating expenses for the transit system could be expected to be about 10 percent higher during the entire period than those for maintaining the existing transit system. The total operating deficit for the transit system in 1989 would be about 9 percent higher than the operating deficit for the existing transit system in that year. With the ridership increases projected to occur by 1992, the total operating deficit for the transit system in 1992 with the proposed service changes would be 7 to 8 percent above the operating deficit that would be expected in 1992 if the existing transit system were maintained. When compared with the alternative of maintaining the existing transit system, the local share of the operating deficit in 1989 would be about 13 percent higher under Alternative 5, but by 1992 would be only 9 to 10 percent higher.

Also, approximately \$30,000 in local funds would be needed to purchase one additional bus for the city transit system.

Not all the increase in the local share of the operating deficit for the city bus system projected under this alternative would need to be borne by the City of Waukesha. City staff have indicated that some portion of the costs of extending city bus service to the Brookfield Square Shopping Center would need to be borne by another public sponsor in order for the City to consider its route extension. Potential sponsors for the route extension include the City of Brookfield, which has made inquiries in the past about the possibility of extending the city bus service into the Blue Mound Road corridor, and Waukesha County. Based upon the operating characteristics of the route with the proposed service changes, and upon projected levels of ridership and passenger revenues for the route extension, it is estimated that between \$13,000 and \$18,000 would need to be provided by a public sponsor other than the City to subsidize the route extension in 1992. Should Waukesha County be the public sponsor, these funds would be in addition to county funds needed to subsidize the county transit system. However, even with this additional funding requirement, the total amount of county funds required under Alternative 5 would still be within or close to the projected 1992 budget limit for county transit services.

The need for a sponsor for the proposed extension of the local city bus route is one drawback to this alternative. Should the County decide to implement the proposed service changes for county Routes No. 1 and 2, but the City fail to find a sponsor willing to subsidize the operation of the extended city bus route, both the County and the City could be faced with the situation where no bus service is provided within the Blue Mound Road corridor or between the City of Waukesha and the Brookfield Square Shopping Center. Such a situation would conflict with an earlier finding of this study that transit service connecting the City of Waukesha with the Blue Mound Road corridor and the Brookfield Square Shopping Center should be maintained. To avoid this situation, the County would need to make implementation of the proposed service modifications for Routes No. 1 and 2 conditional to the City extending local bus service to the Brookfield Square Shopping Center.

A second drawback to Alternative 5 is the potential for problems to occur in replacing the current county bus service between the City of Waukesha and the Brookfield Square Shopping Center, which is operated by a private transit company, with bus service provided by the City's publicly owned transit system. It is a current policy of the federal Urban Mass Transportation Administration to increase the involvement of private transit operators in the operation of transit services supported with federal funds. In order to comply with this policy, public transit operators proposing new or significantly restructured transit services must consider whether or not the transit services could be more effectively provided by a private transit operator if the contract for such services were to be awarded through a competitive bid process. This policy is not intended to preclude the operation of new or restructured transit services directly by public transit operators, but rather to require public transit operators to at least consider whether there would be benefits to contracting for public transit service from a private transit operator.

Inasmuch as the extension of city bus service into the Blue Mound Road corridor, as proposed under Alternative 5, would in all likelihood be considered a new or restructured transit service, the City would be required to consider

whether or not private transit operators, such as the operator providing the existing county bus service between the City of Waukesha and the Brookfield Square Shopping Center, should be given the opportunity to compete for the operation of the transit service. The City of Waukesha Transit System Utility has adopted a private sector policy which conforms to the federal policy by stating that the costs of new and significantly restructured services will be analyzed and the potential for contracting these services on a competitive basis assessed. However, the policy has yet to be applied in an actual situation where contracting of regular fixed-route transit service is a possibility. Should the City determine that, based upon its analyses, the proposed route extension does not represent an opportunity for contracting with a private transit operator, the existing private transit operator under contract with the County would, in all likelihood, protest the decision. Consequently, the implementation of the proposed extension of city bus service into the Blue Mound Road corridor could be delayed or prevented, and the County could again be faced with an unfavorable situation where no bus service is provided within the Blue Mound Road corridor.

While the two drawbacks discussed above do represent potential problems to the implementation of Alternative 5, they do not represent insurmountable obstacles. Careful coordination between city and county staff in implementing the proposed routing and service changes would be needed so that changes proposed for county bus Routes No. 1 and 2 are not implemented until the extension of city bus service into the Blue Mound Road corridor has been approved by the City. This would ensure that bus service within the Blue Mound Road corridor is not disrupted. In addition, if the City of Waukesha gives full consideration to suggestions and proposals made by private transit operators for the provision of city bus service within the Blue Mound Road corridor, it should be reasonably confident of complying with the current federal policy concerning the involvement of the private sector in the provision of public transit services, thereby avoiding potential delays in, or the prevention of, the implementation of the proposed route extension. If such actions are taken by both the City of Waukesha and Waukesha County, it should be possible to successfully implement the service changes proposed under Alternative 5.

Finally, the service changes proposed under Alternative 5 would be consistent with the findings of the systemwide performance evaluation, which concluded that some existing bus services that perform well below systemwide overall effectiveness levels--including all express bus services provided west of the Goerke's Corners public transit station and all weekend and holiday bus service--should be considered for elimination. Other existing bus services that perform just below system average effectiveness levels--including express bus service provided between the Goerke's Corners public transit station and downtown Milwaukee over the Oconomowoc-to-Milwaukee bus routes and weekday bus service over the Waukesha-to-Milwaukee bus routes--were found to be candidates for service modifications to improve their performance. In addition, it was recommended that consideration be given to providing additional rapid transit service between Goerke's Corners and the Milwaukee central business district, along with local rather than express bus service within the Blue Mound Road corridor. With respect to the Blue Mound Road corridor, it was concluded that local bus service within the corridor would be appropriate to enable City of Waukesha residents to have access by transit to the jobs and businesses located along W. Blue Mound Road. In order to provide the most convenient service to city residents, and thereby attract the highest number of passengers, it would be most appropriate for this transit service to be provided as part of the local bus service currently being provided within the City of

Waukesha, and for the City to accomplish this by extending a regular local bus route to directly serve the corridor.

Final Recommendations

Based upon the information presented in the previous section, Alternative 5 is recommended for implementation by both Waukesha County and the City of Waukesha. However, while the previous analysis of this alternative was based upon the assumed implementation in 1989 of the service changes included therein, it is recommended that the proposed changes in county and city bus services be staged to occur as conditions warranting them develop over the period. This staging would take into consideration several factors, including the actual need to reduce transit services to meet future budget limits for the County's transit services, and the ability of the County and the City of Waukesha to resolve issues pertaining to the operation and funding of local bus service between the City and the Brookfield Square Shopping Center.

With regard to those county transit services that have been proposed for elimination because they have been found to be ineffective in terms of ridership generated per cost of operation--which would include all bus service west of the Goerke's Corners public transit station provided over the Oconomowoc-to-Milwaukee bus routes and all weekend and holiday bus service provided over the Waukesha-to-Milwaukee bus routes--it is recommended that Waukesha County include these services in negotiations with the private operator during the last two years of the operator's three-year contract with the County--1989 and 1990. As long as existing transit services can continue to be provided at no county subsidy, or for a county subsidy within the estimated county budget limits, it is recommended that the transit services proposed for elimination continue to be provided. Estimates of the county funds that would be required to operate the existing transit services as prepared under the status quo alternative indicate that county budget limits would not be exceeded in 1989, even if past trends of increasing operating costs and declining ridership were to continue. The ability of the County to retain services proposed for elimination in 1990 and beyond will depend upon negotiations with the private transit operator for the costs of the existing transit services. It should be noted that the private transit operator has indicated a willingness to work with the County to provide all of the company's existing transit services for costs within future county budget limits.

For the modifications to county and city transit services that have been proposed, no service modifications can be implemented before agreement is reached between the City and the County regarding who should be responsible for overseeing the recommended revised service between the City and the Brookfield Square Shopping Center, and how the service will be jointly funded by these parties. These modifications include restructuring weekday bus service over the Waukesha-to-Milwaukee bus routes, including rerouting county bus service between Waukesha and downtown Milwaukee to the freeway to reduce travel time; and replacing county bus service between Waukesha and the Brookfield Square Shopping Center on Blue Mound Road and Greenfield Avenue, and an existing City of Waukesha bus route between downtown Waukesha and the Goerke's Corners public transit station, with a single bus route operated between Waukesha and Brookfield Square. In addition, the issue of which transit operator or contractor will provide the transit service between the City and the Brookfield Square Shopping Center must be resolved. During deliberations to resolve these issues, consideration should also be given to the current

contracts that the County has with the existing private transit operator and the City has with its private management firm, both of which run through 1990.

It is therefore recommended that the County and City strive to reach agreement on, and resolve difficulties associated with, the recommended transit service changes within the Blue Mound Road corridor, and, upon reaching an agreement, implement the service modifications recommended under Alternative 5. In the interim, it is recommended that actions be taken by both the County and the City to encourage the use of existing county bus routes serving the City of Waukesha. Such actions would include:

- Showing county bus routes serving the City of Waukesha on the route map for the City's transit system.
- Providing schedule and fare information for such county bus routes in the schedules for the city bus routes.
- Coordinating telephone information services so that passengers calling one operation with questions concerning the services provided by the other operation either have their questions properly answered by the operation first contacted, or are referred directly to the second transit operation.
- Coordinating the stops and schedules for such county bus routes with the posted arrival and departure times of city bus routes at the City's downtown transfer terminal.
- Exploring the possibility of using common paint schemes for county and city buses--in particular, for county bus service provided between the City of Waukesha and the Brookfield Square Shopping Center.

It is also recommended that the results of an analysis of alternative operating agencies and institutions which will be conducted under this transit study for Waukesha County be considered by both the County and the City. Currently, both the County and the City administer and operate their transit services independently of one another. Examples of the alternatives to the existing situations which will be examined during the study include:

- Operation of all transit services in the County by Waukesha County.
- Operation of all transit services in the County by the City of Waukesha.
- Operation of all transit services in the County by a separate transit authority.
- Separate but coordinated operation of city and county transit services, including staff, management, and operators.

The results of the analysis of these alternative operating strategies are documented in the following chapter, describing the recommended transit plan.

On April 18, 1988, the Advisory Committee acted to accept the final staff recommendation presented above, calling for the staged implementation of Alternative 5 by both Waukesha County and the City of Waukesha.

SUMMARY

This chapter has described two sets of alternative transit service options considered for the Waukesha County transit system, the first set being for the 1988 transit system operating budget and the second set being for the period 1989 through 1992.

The alternative transit service options considered were based upon the results of a review of the existing land use patterns within the County and of the socioeconomic characteristics and travel patterns of the county residents, as well as on the results of a route-by-route evaluation of the existing transit system performance--all as presented in previous chapters of this report. A review of the extent and density of urban development within the County, the density of the existing population and employment within the County, and such characteristics of the county population as household income and the number of automobiles available indicated that no expansion of transit service was warranted within the County under present conditions. The route-by-route performance evaluation, however, indicated that for some of the routes, operational changes could enhance the level of service provided by the system, as well as improve the overall effectiveness and efficiency of the transit system. Accordingly, the focus of the alternative transit service options presented in this chapter was on the routes currently operated by Waukesha County rather than on establishing new routes to expand county transit service into areas presently unserved.

Also influencing the nature of the alternative transit service options that were considered were the constraints placed upon the transit system operating budget for calendar year 1988 by the Waukesha County Board of Supervisors. It was specified in the budget that the local tax levy required to provide county transit services in 1988 should be no more than 2 percent above the local tax levy required to provide such services in 1987. To comply with the County Board's 1988 budget directive, the Waukesha County Highway and Transportation Committee was required to hold the local tax levy for the county transit system during 1988 to a maximum of \$41,200. In addition, members of the Highway and Transportation Committee indicated that, to the extent practicable, it would be desirable to ultimately plan for the elimination of the county tax levy for the transit system.

The first set of alternative transit service options considered concerned the county 1988 transit system operating budget. The first alternative considered was a "status quo," or do nothing, alternative, under which the routes, service levels, and fares on the transit system during 1988 were assumed to remain unchanged from those that existed during 1987. Two sets of projections for this alternative were considered, with the first set representing the preliminary 1988 operating budget for the transit system as prepared by Waukesha County staff. The preliminary operating budget prepared by county staff would have required a county tax levy of \$73,500 to support the transit system in 1988. However, the preliminary transit system operating budget assumed an increase in operating revenue of about \$17,000, or 5 percent over the total operating revenues estimated for 1987. Because actual levels of ridership and operating revenues had been declining on the transit system for the past several years, a second set of projections was prepared by the

Regional Planning Commission staff. Under this second set of projections, which was based on an assumed continuation of past trends of declining transit ridership and passenger revenues, the county share of the transit system operating deficit for 1988 was estimated at \$120,000.

Because the county tax levy for the transit system under both sets of projections for the status quo alternative would exceed the limit set by the Waukesha County Board for calendar year 1988, other alternative service options were considered to reduce the county tax levy by between \$32,000 and \$79,000. Three sets of transit service options were examined: 1) potential service reductions on the two bus routes operating between the City of Oconomowoc and downtown Milwaukee in 1987; 2) potential service reductions on the two bus routes operating between the City of Waukesha and downtown Milwaukee; and 3) potential increases in the passenger fares charged on the transit system. Based upon the conclusions of the evaluation of route performance presented in the previous chapter, no service modifications were initially proposed for Route No. 10, the Brookfield Square local route extension, or Route No. 79, the Menomonee Falls freeway flyer.

No changes were initially proposed in the procedures followed by the County in preparing the annual transit system operating budget and the applications for federal and state transit assistance, or in procuring transit services. Some changes in the county transit program in these areas could have resulted in additional federal and state transit assistance funds, which could have been used to reduce the required county funding level for 1988. However, while the potential benefits of transit program changes in these areas were discussed with the Waukesha County staff and the Waukesha County Highway and Transportation Committee, county officials expressed their concern that there would not be adequate time among the existing county staff to handle the additional work involved in implementing the proposed program changes. Such changes were, accordingly, not included in the initial set of alternative transit service options considered for the 1988 transit system operating budget.

With respect to the alternative service options for the Oconomowoc-to-Milwaukee bus routes, three options were considered which would have reduced or eliminated the transit service being provided during 1987 west of the Goerke's Corners public transit station. These options were:

- Reduce Oconomowoc-to-Milwaukee bus service by eliminating one morning inbound run and one afternoon outbound run west of the Goerke's Corners public transit station, thereby reducing the projected 1988 total annual operating deficit for the transit system by about \$35,000, or by 4 to 5 percent, and the local share of the total operating deficit by about \$19,000, or by 16 to 26 percent.
- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and continue the current level of service between Goerke's Corners and downtown Milwaukee, thereby reducing the projected 1988 total transit system operating deficit by about \$54,000, or by 7 to 8 percent, and the local share of the operating deficit by about \$22,000, or by 18 to 30 percent.

- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and one of three round-trip weekday bus runs between Goerke's Corners and downtown Milwaukee, thereby reducing projected 1988 total operating deficits for the transit system by about \$89,000, or by 13 to 14 percent, and the local share of the operating deficit by about \$43,000, or by 35 to 57 percent.

With respect to alternative service options for the Waukesha-to-Milwaukee bus routes, five options were considered that would have reduced the transit service being provided on weekends and during midday off-peak periods of operation. These options were:

- Eliminate all Sunday and holiday bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$18,000, or by 2 to 3 percent, and the local share of the total operating deficit by about \$9,000, or by 8 to 12 percent.
- Eliminate all Saturday, Sunday, and holiday bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$42,000, or by 6 to 7 percent, and the local share of the operating deficit by about \$22,000, or by 18 to 57 percent.
- Eliminate some weekday midday service and late evening service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$40,000, or by about 6 percent, and the local share of the annual operating deficit by about \$22,000, or by about 18 to 30 percent.
- Eliminate most weekday midday and late evening service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$104,000, or between 15 and 16 percent, and the local share of the operating deficit by about \$55,000, or between 46 and 75 percent.
- Eliminate all weekday midday and late evening bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$138,000, or between 20 and 22 percent, and the local share of the total operating deficit by about \$69,000, or between 58 and 94 percent.

With respect to increasing passenger fares to generate additional operating revenues and reduce the level of county funding required for the transit system, the following two changes were considered:

- Increase fares by 5 percent systemwide on all six bus routes, thereby generating between \$5,400 and \$6,300 in additional operating revenues which could be directly applied to reduce the county share of the projected 1988 transit system operating deficit.

- Increase fares by 10 percent systemwide on all six bus routes, thereby generating between \$12,000 and \$14,000 in additional passenger revenues which could be directly applied to reduce the county share of the projected 1988 transit system operating deficit.

Based upon the projected impacts of the three sets of alternative service options proposed for the 1988 operating budget, and the reluctance of Waukesha County staff and officials to consider other changes to the transit program which could increase levels of federal and state transit assistance funds available to the County, the Commission staff recommended the following alternative service changes to the Waukesha County Mass Transit Advisory Committee to reduce the county tax levy for the transit system to below the 1988 budget limit of \$41,200.

- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and reduce bus service between Goerke's Corners and downtown Milwaukee on Routes No. 3--Oconomowoc to Milwaukee via STH 16--and No. 4--Oconomowoc to Milwaukee via IH 94.
- Eliminate weekend and holiday bus service between Waukesha and Milwaukee on Route No. 1--Waukesha to Milwaukee via Greenfield Avenue--and Route No. 2--Waukesha to Milwaukee via Blue Mound Road.
- Reduce weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center on Route No. 2.
- Eliminate weekday late evening bus service between Waukesha and Milwaukee on Route No. 1.

With these proposed service changes, ridership on the transit system during 1988 was projected to total about 33,000 revenue passengers, or 14 percent, less than the projected ridership for the transit system with no service changes. It was estimated that the service changes would also reduce the total operating deficit for the transit system during 1988 by \$114,000, or about 18 percent, and the local share of the operating deficit by \$86,000, or about 72 percent. This would have resulted in a local operating deficit of about \$34,000 for the transit system--about \$7,000, or 18 percent, below the county funding limit of \$41,200 established by County Board action.

At a meeting of the Waukesha County Mass Transit Advisory Committee held on August 24, 1987, Committee members expressed concern that the service changes recommended by Commission staff to permit the system public subsidy to remain within 1988 budget limits would require a 25 percent reduction in transit service. Some Committee members also expressed concern that the proposed reduced service would not be compatible with the need for transit service under inevitably higher gasoline prices. To address these concerns, four additional alternatives for the Waukesha County transit system were proposed by the Advisory Committee. Of these four options, two were concluded to be inappropriate in 1988: an option proposing the purchase of a fleet of buses by Waukesha County for lease back to a private transit operator for use in providing transit service over contracted bus routes, and an option proposing modification of the weekday bus service operated over Routes No. 1 and 2

between the City of Waukesha and the Milwaukee central business district to provide more high-speed, nonstop, rapid transit service, while eliminating weekend and holiday bus service over these routes, and Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4. The remaining two alternatives that were considered by the Advisory Committee were:

- An option proposed by the private transit operator under contract with Waukesha County under which Route No. 10 would be eliminated and Routes No. 1 and 2 would be modified to provide replacement bus service within Waukesha and Milwaukee Counties. To provide the replacement service for Route No. 10 under this option, bus runs operated during 1987 on Route No. 1 over IH 94 and W. Greenfield Avenue between downtown Milwaukee and the Brookfield Square Shopping Center would be shifted to operation over E. and W. Wells Street, E. and W. Wisconsin Avenue, and W. Blue Mound Road between those points. The total operating deficit for the transit system during 1988 under this alternative would be reduced by about \$148,000, or 21 percent, and the local share of the operating deficit would be reduced by about \$76,000, or 64 percent, from levels projected under the status quo alternative. The resulting county funding requirement of about \$43,800 would be only about \$2,600 over the budgetary limit of \$41,200.
- An option under which the County would award contracts for transit service by competitive bidding among potential operators. This action would enable Waukesha County to be eligible to apply for federal capital assistance to cover 80 percent of the depreciation and capital overhead expenses charged by the private operator in providing the contract service, as well as state transit operating assistance to cover 37.5 percent of the depreciation and profit charged by the private operator. Waukesha County could receive between \$56,000 and \$70,400 in federal Section 9 capital assistance funds, plus between \$49,200 and \$61,800 in additional state transit operating assistance funds if it were to competitively award service contracts for Routes No. 1, 2, 3, 4, and 79. With these additional federal and state funds, it was estimated that the county funds required to subsidize the operation of the transit system during 1988 would range from \$8,800 to \$14,700, substantially below the 1988 budget limits, thereby precluding the need to make any reduction in transit service.

Based upon the potential impacts on the 1988 transit system operating budget of these two service options, the Waukesha County Highway and Transportation Committee determined that, for 1988, it should continue to contract for the operation of Route No. 10 from the Milwaukee County Transit System and pursue the competitive procurement of transit services for the remaining five county routes. The Committee also decided that, based upon the findings concerning the effectiveness and efficiency of the bus service provided during 1987, one round trip between the City of Oconomowoc and the Goerke's Corners public transit station should be eliminated over Route No. 3. Following this decision, the Waukesha County Highway Department, with the assistance of the Regional Planning Commission staff, prepared and distributed a formal request for proposal (RFP) document to solicit competitive bids for the operation of the Waukesha County transit service over Routes No. 1 through 4 and 79. A

special proposal review panel subsequently recommended that the service contracts for the five bus routes be awarded to the same contract operators operating the routes during 1987--that is, Wisconsin Coach Lines, Inc., for Routes No. 1, 2, 3, 4, and Milwaukee County Transport Services, Inc., for Route No. 79. The contract for Route No. 10 was re-negotiated for calendar year 1988 with Milwaukee County Transport Services, Inc.

Based upon the competitive bids submitted and approved by the Waukesha County Board of Supervisors, total operating expenses for the transit system during 1988 were projected to increase by 21 percent over 1987 levels, to about \$1,205,000. About \$86,000, or 41 percent of this increase, was attributed to increased capital depreciation charges by the contract transit operator. Despite the significant increase in the projected operating expenses, projected decreases in operating revenues resulting from the projected continuation of the decline in transit ridership, and a decrease in the amount of federal transit operating assistance available to the County, county funding for the transit system during 1988 was projected to decrease by 64 percent, to about \$16,000 in 1988. The principal reason for this decrease was the competitive bid submitted by Wisconsin Coach Lines, Inc., for Routes No. 1 through 4, and by Milwaukee Transport Services, Inc., for Route No. 79. With respect to Routes No. 1 through 4, the private transit operator agreed to assume responsibility for funding any operating expenses for these routes during 1988 that would not be covered by projected operating revenues or federal and state transit assistance funds, thereby eliminating the need for county funds for these routes. With respect to Route No. 79, projected operating revenues in combination with federal and state assistance funds were estimated to cover all the projected operating expenses for this route, except those expenses for depreciation of publicly owned equipment and facilities.

A second set of alternative service options was also presented within the chapter for the period 1989 through 1992. In order to address concerns expressed by some members of the Advisory Committee regarding the need for transit service within the County should there be a return to higher gasoline prices such as experienced in the area between 1979 and 1982, the analysis of alternative service options for 1989 through 1992 was conducted using two scenarios with different assumptions concerning the price of motor fuel. The first scenario, based upon an assumed continuation of past trends, assumed that gasoline prices, after increasing to about \$1.00 per gallon during 1988, would remain at that level throughout the planning period. The second scenario assumed that gasoline prices would reach \$1.00 per gallon during 1988, then increase steadily over the rest of the planning period, ultimately reaching \$1.55 per gallon by 1992. Under both scenarios, it was also assumed:

- That Waukesha County would continue to award service contracts for Routes No. 1 through 4 and 79 through a competitive bid process; and that, based upon the results of the competitive bid process followed for 1988, the current contract operators would be awarded the contract for these routes.
- That operating expenses would increase somewhat over the period due to the effects of general price inflation.

- That passenger fares charged on all routes would be the same as those charged on the routes in early 1988.
- That federal transit operating assistance funds available to Waukesha County would be reduced by about \$34,000, or 19 percent, by 1992.
- That the operating budget for the county transit system during calendar years 1989 through 1992 would continue to require no more than a 2 percent increase over the local tax levy required in the immediately preceding year.
- That the private transit operator for Routes No. 1 through 4 would continue to assume responsibility for funding a portion of the operating expenses for these routes.

The potential impacts of five alternative service options on the ridership and financial performance of the Waukesha County transit system during the period were examined. These alternatives were:

- A status quo alternative which proposed that Waukesha County continue to operate during the entire period, and without change, the transit services operated within the County during 1988. By 1992, the total transit system operating deficit under this alternative would be expected to increase from the projected 1988 level of about \$864,000 to between \$1,068,000 and \$1,075,000--increases of approximately 24 percent. The local share of the total operating deficit would be expected to increase from the projected 1988 level of \$16,000 to between \$106,000 and \$152,000.
- An alternative which proposed that Waukesha County fully implement the reductions in transit service which had been previously recommended by the Commission staff for calendar year 1988. By 1992, the total operating deficit for the transit system under this alternative would be expected to be reduced to about \$849,000, or by about 2 percent from the projected 1988 level. The local share of the operating deficit would be expected to range between \$57,000 and \$89,000 by 1992.
- An alternative which proposed that Waukesha County use federal formula capital assistance funds to purchase a fleet of buses and lease them back to the private transit operator for use in providing transit service over Routes No. 1 through 4. With this arrangement, it was expected that the private transit operator would be able to reduce the costs charged to Waukesha County for operating the contract transit service since it would no longer have to charge depreciation for wear and tear of its own vehicles.
- An alternative which proposed that Waukesha County modify Routes No. 1 and 2 to replace the service currently provided over Route No. 10, as was proposed by the private transit operator currently under contract with Waukesha County under a service option considered for the 1988 transit system budget. By 1992, the total operating deficit for the transit system under this alternative would range between \$934,000 and \$949,000,

representing increases of between 8 and 10 percent over the projected 1988 level. The local share of the operating deficit by 1992 would range from \$33,000 to \$83,000.

- An alternative which proposed that Waukesha County eliminate all Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4 along with all weekend and holiday bus service over Routes No. 1 and 2, and restructure the weekday bus service operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district to provide for more high-speed rapid transit service between these points. By 1992, the total operating deficit for the transit system under this alternative would range from \$703,000 to \$739,000, representing a reduction of between 15 and 18 percent from projected 1988 levels. The county share of the operating deficit by 1992 would range from \$5,400 to \$30,000.

The alternative service option proposing county purchase of a bus fleet for lease back to a private transit operator was dismissed as a viable option because, with the advancement of the federal capital-cost-of-contracting policy, there would be no advantage to Waukesha County acquiring a fleet of revenue vehicles. Rather, if Waukesha County continued to award service contracts using a competitive bid process, depreciation charges passed through to Waukesha County by a private transit operator using its own equipment and facilities would be eligible for 80 percent federal assistance plus 37.5 state transit assistance. This would result in federal and state aids amounting to about 118 percent of eligible private operator depreciation expenses being available to Waukesha County, compared with 80 percent federal funding and no state funding if Waukesha County were to purchase a fleet of transit vehicles. Such federal and state aids, coupled with continued flexibility allowed for transit service levels under the current contract arrangement, would outweigh the possible advantage of lower operating costs with county ownership of revenue vehicles.

A comparative evaluation of the remaining four alternative transit service options was conducted to identify differences among the alternatives regarding their projected impacts on transit system ridership and service levels, their overall effectiveness and efficiency, and county funding requirements. Based on this information, it was determined that if county funds for subsidizing the operation of the county transit system were limited during the period, as they were during 1988, the status quo alternative should be dismissed as not being a viable alternative for the Waukesha County transit system. In this respect, county funds required to subsidize the operation of the transit system would exceed anticipated county funding limits by 1990 under both future scenarios.

The remaining three alternative service options all proposed further modifications to the county transit service above and beyond those implemented during 1988 in order to reduce future needs for county funding. The alternative service option proposing modifications to Routes No. 1 and 2 to replace service over Route No. 10 would result in a cutback from 1988 transit service levels of about 8 percent, and would keep county funding requirements for the transit system below projected budget limits during the entire period, assuming that there would be a return to high motor fuel prices. If past trends

were to continue, resulting in relatively low motor fuel prices during the period, the county funding requirement would exceed projected budget limits by 1991. In addition, the service changes proposed under this alternative would be expected to have a negative impact on the overall effectiveness and efficiency of the transit system, as they would eliminate service that was identified in the performance evaluation as performing well above systemwide levels. Consequently, by 1992 there would be a decline in transit system productivity and an increase in the operating deficit per passenger, compared to what would be expected under the status quo alternative. Consequently, this alternative was also rejected.

The alternative proposing that Waukesha County implement the remaining service cuts included in the preliminary recommended service proposal for the 1988 operating budget was also rejected. The reduction from 1988 service levels of 25 percent proposed under this alternative would be expected to improve the overall effectiveness and efficiency of the Waukesha County transit system, as the services eliminated would be far less effective and efficient than those retained. However, the county funds required to subsidize the transit system would exceed projected budget limits by 1991 assuming a continuation of past trends, and by 1992 assuming a return to high motor fuel prices.

The projected impacts on the Waukesha County transit system of the fifth alternative service option were found to be superior to those of the other transit service alternatives. This alternative also proposes a 25 percent cutback in transit service levels, which would improve the overall effectiveness and efficiency of the county transit system. However, unlike under the other alternatives considered, under this alternative ridership would be expected to increase between 1989 and 1992 under both future scenarios owing to the actual and perceived improvement in the transit service provided between Waukesha and the Goerke's Corners public transit station and downtown Milwaukee. Consequently, the required county funding level for the transit system under this alternative would be reduced by 80 to 95 percent from levels projected under the status quo alternative, which would enable the County to stay within the projected budget limits for the transit system during the entire period under both scenarios.

Because this alternative also proposes that changes be made in the City of Waukesha's local bus system, consideration was also given to the projected impacts of this alternative on the city transit system. A key element of the alternative called for county bus service between the Brookfield Square Shopping Center and downtown Waukesha to be replaced by city bus service through the extension of one regular local city bus route. With this change, a modest duplication of existing service, and the potential for a substantial duplication of bus service in the near future, between county and city bus routes operated between downtown Waukesha and the Goerke's Corners public transit station would be eliminated. In addition, operating headways on this route would be reduced to 30 minutes during all periods of operation. The proposed service changes would be expected to have a positive impact on city bus system ridership, with such ridership increasing between 16 and 17 percent by 1992 over that projected for the existing transit system. However, the proposed service change would also be expected to result in increases of between 9 and 13 percent in the local share of the operating deficit for the

city transit system. In addition, the City would need to acquire one additional transit vehicle to provide the service over the proposed route extension, at a total cost of approximately \$147,500, of which the City would be responsible for \$29,500, or 20 percent, assuming that federal transit capital assistance funds would be used to finance the remaining 80 percent. A portion of the projected local costs of extending city bus service to the Brookfield Square Shopping Center, estimated at between \$13,000 and \$18,000 in 1992, would need to be borne by another public sponsor such as Waukesha County in order for the City to consider implementing the route extension.

Two potential drawbacks to the proposed extension of city bus service to the Brookfield Square Shopping Center were identified. The first is related to the need for a sponsor for the proposed route extension of the local city bus route. Should the County implement the proposed service changes for Routes No. 1 and 2, but the City fail to extend bus service to the Brookfield Square Shopping Center because of the lack of a sponsor willing to subsidize the operation of the route extension, then no bus service would be available between the City of Waukesha and the Brookfield Square Shopping Center. Such a situation would be in conflict with findings of the study, which suggested that the existing transit service between the City of Waukesha and the Blue Mound Road corridor and the Brookfield Square Shopping Center should be maintained, and possibly expanded in the future.

The second potential drawback identified was the potential for problems to develop with the private transit operator under contract to Waukesha County who provides the existing transit service between the City of Waukesha and the Brookfield Square Shopping Center should there be attempts to replace this service with service directly operated by the City's publicly owned and operated transit system. The City would need to comply with a current policy of the federal Urban Mass Transportation Administration (UMTA) aimed at increasing the involvement of private transit operators in the operation of transit services supported by federal funds. The City would thus need to consider whether or not private transit operators such as the operator providing the existing county contract bus service should be given the opportunity to compete for the operation of the transit service. Should the City determine that the proposed route extension does not represent an opportunity for contracting with the private transit operator, the existing private transit operator could protest the decision, which would delay or prevent the proposed extension of city bus service to the Blue Mound Road corridor.

While these two drawbacks represent potential problems to the implementation of the fifth transit service alternative, it was determined that they would not represent insurmountable obstacles. Careful coordination between city and county staffs in implementing the proposed routing and service changes for the county and city bus systems should ensure that bus service within the Blue Mound Road corridor would not be disrupted. In addition, if the City of Waukesha gives consideration to suggestions and proposals made by private transit operators for the provision of city bus service between the City of Waukesha and the Brookfield Square Shopping Center, it should be in compliance with the current federal policy, thereby avoiding potential delays in, and the prevention of, the implementation of the proposed routing extension. Finally, because the provision of local bus service within the Blue Mound Road corridor

was found to be appropriate in order to provide public transit access to the jobs and businesses within the corridor for City of Waukesha residents, the extension of a regular local city bus route to serve the corridor would provide the most convenient service for city residents.

Because there are reasonable solutions to the potential problems with this alternative, and because the performance of this alternative is superior to the performance of the other transit alternatives considered, the fifth transit service alternative was recommended for implementation by both the County and the City.

Chapter VIII

RECOMMENDED TRANSIT PLAN

INTRODUCTION

Five alternative transit plans for Waukesha County were described in Chapter VII of this report. Based upon careful evaluation of these alternatives, the Advisory Committee recommended the implementation of Alternative 5, calling for the elimination of some county bus services found not to be effective in terms of ridership generated per cost of operation, and for modifications to county bus services operated between Waukesha and Milwaukee, and to County and City of Waukesha bus services operated within the Blue Mound Road corridor. This chapter describes the recommended transit plan and program for the five-year period 1988 through 1992. Presented first is a description of the recommended fixed-route transit services for Waukesha County. This is followed by an analysis of the operating agencies and institutions which could provide the recommended fixed-route transit services. The chapter then describes the county program for providing specialized transportation service to handicapped persons in the areas served by the regular fixed-route transit services. This is followed by a summary of the financial requirements entailed, including an analysis of alternative methods for distributing federal transit operating assistance between Waukesha County and the City of Waukesha, and an analysis of the financial capacity of Waukesha County to implement the plan recommendations. Finally, the chapter identifies the actions required by various agencies to achieve plan implementation.

RECOMMENDED FIXED-ROUTE TRANSIT SERVICE

The recommended plan for county fixed-route transit service calls for the County to continue to contract for the desired transit services with existing public agencies and private firms, and to award the service contracts through a competitive bid process. The plan also calls for a number of changes in the routes currently subsidized by the County. The specific routing changes are described in detail in Chapter VII.

In summary, the recommended plan calls for the ultimate elimination of the most ineffective of the existing county transit services, including all bus service provided west of the Goerke's Corners public transit station over the two existing Oconomowoc-to-Milwaukee bus routes, and all weekend and holiday bus service provided over the two existing Waukesha-to-Milwaukee bus routes. The recommended plan also calls for modifying the existing weekday bus service provided between Waukesha and downtown Milwaukee by restructuring this service so that most of the bus runs are operated over freeway facilities to reduce travel times. To facilitate this service improvement, the plan calls for the replacement of the existing county bus service provided between Waukesha and

the Brookfield Square Shopping Center over Blue Mound Road and Greenfield Avenue, and the existing City of Waukesha bus service operated between downtown Waukesha and the Goerke's Corners public transit station, with one bus service using a single route over Blue Mound Road between downtown Waukesha and the Brookfield Square Shopping Center. With this action, a modest duplication of service between the city and county bus routes currently operated within the corridor would be eliminated, along with the potential for a substantial duplication of bus service in the near future. The extent of fixed-route bus services that would be provided in the County, assuming implementation of all these service changes, is shown on Map 25.

It is important to note that the proposed service changes are not all recommended for immediate implementation. Rather, the proposed changes are recommended to be staged over the planning period as conditions warranting implementation develop. For the existing county bus services that are proposed for elimination, it is recommended that the services be continued for as long as they can be provided within county budgeting limits. If, however, these services could no longer be provided within county budget limitations, the County should eliminate those bus services that have been herein identified as being the most ineffective of the existing services.

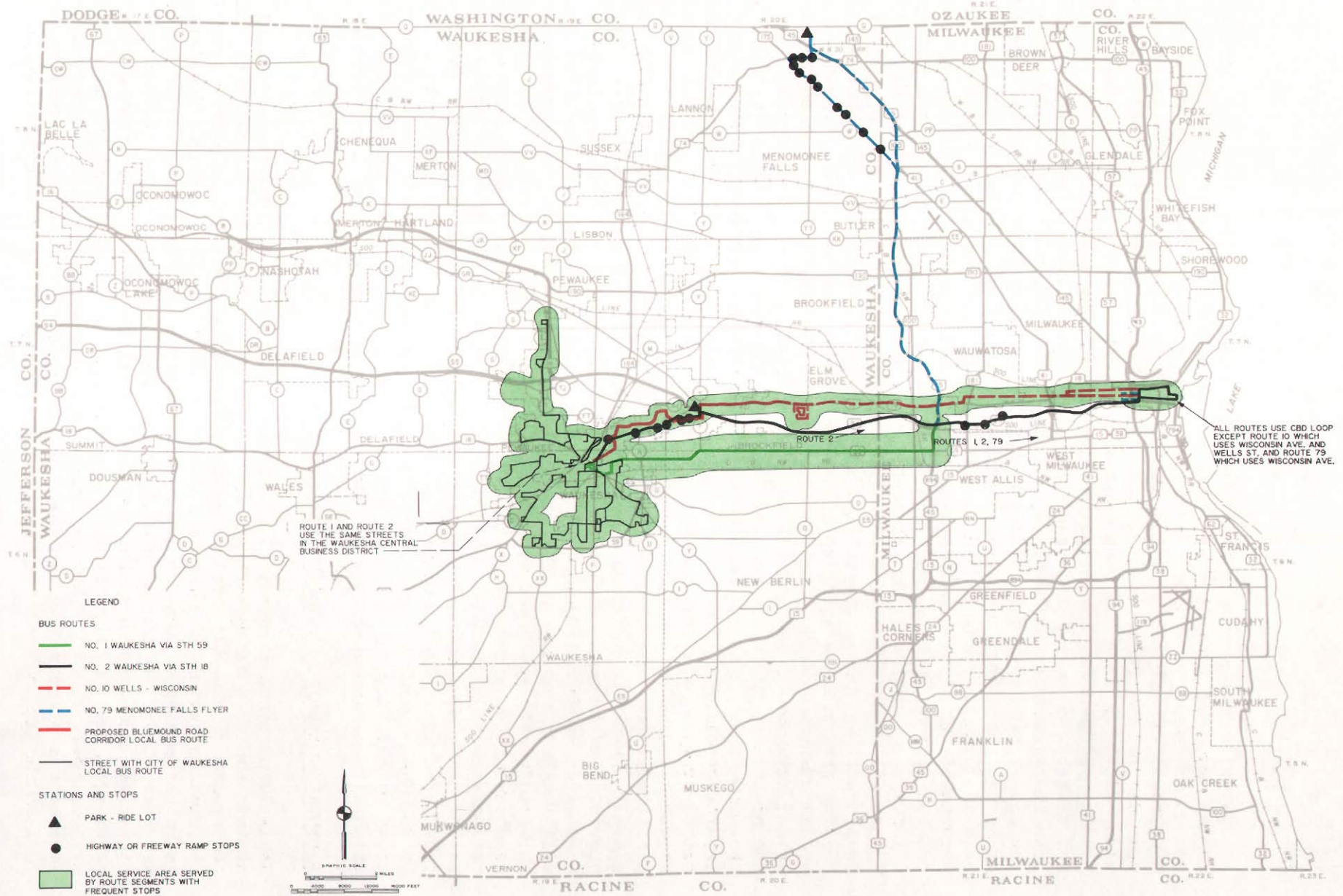
It is recommended that Waukesha County work with the City of Waukesha to eliminate the existing duplication of service in the Blue Mound Road corridor between the City of Waukesha and the Brookfield Square Shopping Center. The replacement of the duplicative county and city bus routes operated within the Blue Mound Road corridor with a single bus route to serve travel between downtown Waukesha and the Brookfield Square Shopping Center is essential to the successful implementation of the remaining modifications to the city and county transit services. In order for this to be accomplished, both the City and the County must first agree that only one bus service is needed to serve travel within the Blue Mound Road corridor, and must then determine which level of government is to provide the replacement service, which level of government is to eliminate its existing service, and how the replacement service is to be jointly funded by the City and the County. In the interim, it is recommended that both the County and the City improve the coordination of existing county bus services with city bus services, thereby encouraging use.

ALTERNATIVE AND RECOMMENDED OPERATING AGENCIES AND INSTITUTIONS

During the course of the study, concerns were raised by members of the Advisory Committee over the most appropriate strategy for overseeing the operation and administration of all public transit services in Waukesha County. In response to these concerns, an analysis was undertaken of alternative administrative bodies that could be used to oversee the operation of both the contract transit services provided by Waukesha County and the local transit service provided by the City of Waukesha. These alternatives included: 1) operation of all transit services in the County by Waukesha County; 2) operation of all transit services in the County by the City of Waukesha; 3) operation of all transit services in the County by a transit authority; and 4) separate but coordinated operation of city and county transit services.

Map 25

RECOMMENDED FIXED-ROUTE TRANSIT SERVICES FOR WAUKESHA COUNTY



Source: SEWRPC.

In reviewing these four alternative strategies, consideration was also given to the means of providing specialized transportation services to the elderly and handicapped, including such services provided by the Waukesha County Department of Aging. Among the specialized transportation services currently provided by the Department is the parallel commuter bus transportation service, which is also the transportation service used by the County to serve handicapped persons unable to use the regular fixed-route transit services, and thereby to comply with current federal guidelines for receipt of federal transit assistance. While the specialized transportation service offered under the county handicapped transit program is currently provided by the Department of Aging, the County could also contract for part or all of the service from a private transit company. The other transportation services provided by the Department of Aging have no such direct relationship to the county public transportation program and, by design, serve a restricted and different clientele and market than the public transit services provided by Waukesha County and the City of Waukesha. The nonlocal public funds used to support the Department of Aging specialized transportation services are obtained from funding programs and agencies different from the common funding sources shared by the County and the City for the general public transportation services. This factor would add additional complexities to the combined operation and administration of all three services. It was therefore concluded that, with the exception of the specialized transportation services provided by the Department of Aging for the County's federally required handicapped transportation program, the Department of Aging's specialized transportation services should continue to be operated and administered separately from the general public transportation services provided by the County and the City of Waukesha. It should be noted that following the completion of this plan for the provision of transit services to the general public by Waukesha County, the Commission staff, at the request of the Waukesha County Department of Aging, will conduct a study of the provision of specialized transit services, and this study will again address the administration and operation of the specialized transit services. Inasmuch as the provision of the specialized transportation service provided under the County's handicapped transportation program is necessary for continued county eligibility for federal transit assistance funds, and given the fact that this service need not necessarily be provided by the Department of Aging, this service, as well as a similar service provided by the City of Waukesha, should be included in the transit services for which alternative operating and administrative strategies will be evaluated.

Alternative Evaluation and Recommendation

Table 72 presents a comparative analysis of the four alternative operating and administrative strategies. Two of these strategies basically call for either the County or the City to assume responsibility for overseeing the operation and administration of the other entity's public transit system. The City may be better equipped than the County to assume an expanded role, as it currently has more extensive transit operation and staff resources than the County. The City also has shown a higher level of commitment to public transit services based upon the history of the local funding it has provided for its transit system. However, city operation of all transit services in the County may not represent a practical alternative, as it would require City of Waukesha staff to provide supervision for, or to directly operate and manage, transit ser-

vices outside the City. Because such services would be of limited direct benefit to city residents, it is unlikely that the City would agree to be responsible for their operation--particularly if the services required any local public funds--or for the provision and funding of the attendant public transit services for handicapped persons required by current federal guidelines. City operation of all transit services is therefore not recommended.

Operation of all transit services by Waukesha County would represent a more logical operating and administrative alternative by virtue of the fact that the County's area of jurisdiction encompasses all the communities currently provided with public transit service. However, this strategy would require a substantially higher level of commitment to transit service than the County has indicated in the past. It is also doubtful that the City would agree to transfer control of its public transit system to the County, given the past level of commitment exhibited by the County toward its own transit program. Accordingly, this alternative is also not recommended for implementation.

Under the third operating and administrative strategy, an independent transit authority would be created to oversee the operation and administration of both the Waukesha County and the City of Waukesha transit services. Creation of such authority in any county having a population of 125,000 or more persons is authorized under Section 66.94 of the Wisconsin Statutes. While the authorizing Statute prescribes the specific steps which must be taken to create the transit authority and governing board for a specific area, or district, within the County, and empowers the authority to acquire, construct, operate, and maintain public transit systems serving the district, the Statute provides the authority with no powers of taxation. The operating and capital costs incurred for the public transit services provided by the authority must be covered by a combination of revenues generated by the users of the authority's public transportation services, and grants and loans secured from federal, state, or municipal governments. Thus in Waukesha County, if local funds were required to support the operation of the transit services, the authority would need to request that such funds be included in the annual budgets of Waukesha County, the City of Waukesha, or other municipalities within the district. This could make it difficult for a transit authority to obtain any local funds needed to support the transit services it provides. This alternative should therefore also be rejected.

Based on the problems associated with the first three alternative strategies, the operating and administrative strategy outlined under the fourth alternative represents the most practical arrangement for the County and the City, and is therefore recommended for implementation. Under this alternative, both Waukesha County and the City of Waukesha would continue the separate operation of their respective public transportation programs, but would make efforts to coordinate both programs in the area of staff resources and with respect to the private firms contracted with to operate and/or manage the transit services. With respect to coordination of staff resources, this alternative would propose that the County contract with the City of Waukesha for the use of existing city staff to perform certain functions for the county transit program. Unlike the City of Waukesha, Waukesha County does not have a full-time staff position assigned to oversee the operation of its transit program.

Table 72

**COMPARATIVE ANALYSIS OF ALTERNATIVE STRATEGIES FOR OVERSEEING OPERATION AND
ADMINISTRATION OF EXISTING WAUKESHA COUNTY AND CITY OF WAUKESHA PUBLIC TRANSIT SERVICES**

Characteristic	Alternative Operating/Administrative Strategy			
	County Operation of All Transit Service	City Operation of All Transit Service	Operation of All Transit Service by Transit Authority	Separate But Coordinated Operation of City and County Transit Services
Description	Requires County to assume responsibility for overseeing operation and administration of City of Waukesha transit system in addition to existing contract bus services	Requires City to assume responsibility for overseeing operation and administration of Waukesha County contract bus services in addition to city transit system	<p>Requires the creation of a transit authority pursuant to Section 66.94 of Wisconsin Statutes to oversee operation and administration of both Waukesha County contract bus services and City of Waukesha transit system</p> <p>Creation of authority within Waukesha County would entail:</p> <ol style="list-style-type: none"> 1. Adoption of authorizing state statute by the municipalities within the district to be served by the transit authority, with the district having a population in the aggregate of more than 100,000 persons. At a minimum, district would need to include Cities of Waukesha and Brookfield, plus Village of Menomonee Falls 2. Enactment of an ordinance by the municipality having more than 50 percent of existing transit route miles in the district—City of Waukesha—which indicates acceptance of the authority by the municipality and designates date on which authority is to commence to exercise its powers 3. Appointment of seven members to the governing board of authority, including: <ol style="list-style-type: none"> a. Three members appointed by mayor of municipality in district having largest population—City of Waukesha b. Three members appointed by Governor c. One member nominated by previous six 4. Appointment of a general manager by the governing board and the hiring of necessary staff 	Requires County and City to coordinate certain elements of both transit programs, including staff resources and selection of contract operators/management firms

Table 72 (continued)

Characteristic	Alternative Operating/Administrative Strategy			
	County Operation of All Transit Service	City Operation of All Transit Service	Operation of All Transit Service by Transit Authority	Separate But Coordinated Operation of City and County Transit Services
Advantages	<ol style="list-style-type: none"> County represents most logical provider of transit services, as: <ol style="list-style-type: none"> Its area of jurisdiction encompasses entire County It is the designated recipient of federal transit formula assistance funds used by both County and City 	<ol style="list-style-type: none"> Would relieve County from direct responsibilities associated with operation and administration of its transit services City is better suited for expanded role in providing county transit services as it has more extensive transit operation and staff resources than County City has indicated a substantial level of commitment to public transit based on history of city funding for transit system 	<ol style="list-style-type: none"> Would relieve County from direct responsibilities associated with operation and administration of its transit services 	<ol style="list-style-type: none"> Would not require County or City to give up direct control of existing transit programs Staff coordination would facilitate better coordination in the planning and operation of city and county transit services, particularly with regard to route and stop locations, service schedules, fares, and transfers between systems Could allow County to utilize city staff resources with more expertise on transit matters, including grant management Could possibly result in efficiencies for both operations by facilitating the selection of a common operator to operate and manage both systems
Disadvantages	<ol style="list-style-type: none"> Would require City to give up direct control of its local bus system Would require County to acquire, by lease or purchase, the operating equipment and facilities of city transit system Would require a substantial increase in level of county commitment to transit service 	<ol style="list-style-type: none"> Would require City to be responsible for transit services for general public and handicapped persons not benefiting city residents—i.e., freeway flyer service between Menomonee Falls and downtown Milwaukee Would require local public funds from sources other than City, such as Waukesha County, to subsidize bus services outside City of Waukesha 	<ol style="list-style-type: none"> Would require City to give up direct control of its local bus system Would require local funds from County and City, or passage of new legislation at state level giving transit authority power to levy taxes Assuming passage of such legislation, creation of authority could be opposed by population, as it would represent another taxing body Large representation on governing board from one municipality—the City of Waukesha—may raise issue of the authority's impartiality in providing transit services 	<ol style="list-style-type: none"> Would require City to agree to County contracting with City for use of city staff Selection of common firm to operate and manage both transit systems cannot be assured based upon competitive bid process followed by both County and City
Conclusion	Not recommended	Not recommended	Not recommended	Recommended for implementation

Source: SEWRPC.

Rather, existing technical staff within the County's Transportation Department are assigned to perform transit program activities--such as service monitoring, the preparation of applications and other documents necessary in order to receive federal and state transit assistance grants, and the preparation of materials and documents related to service contracts--as the need arises. This arrangement has raised concerns as to the ability of existing county staff to effectively administer its transit program. If the County could arrange to use city staff for some program activities, it could draw upon staff resources with more expertise on transit matters, including service planning and grant management. Use of common staff by both the City and the County would also facilitate better coordination in the planning and operation of both city and county transit services, particularly with regard to route and stop locations, service schedules, fares, and transfers between systems.

If the City were to indicate to the County that it was not interested in coordinating staff resources, as described above, or would not be able to do so without adding additional personnel and increasing costs, the County could increase its staff capability by using the existing county staff involved in supervising the specialized transportation programs administered by the Waukesha County Department of Aging. As a second alternative to the use of existing city or county staff, the County could request that the Regional Planning Commission provide the staff to perform the transit program activities described above. The Commission would be willing to provide such staff assistance as part of its regular transit planning activities at no additional cost to the County. Any of these arrangements should provide the County with staff resources that could help to more effectively administer the County's transit program and coordinate certain elements of that program with the City's transit program without increasing the size of, or expenditures for, existing county or city staff.

In addition to coordinating staff resources, the fourth alternative strategy proposes that the City and County make an effort to coordinate the separate competitive bid processes that are followed to award contracts for the operation of the County's bus services and the management of the City's transit system. The selection of a common firm to operate and manage both the city and county transit systems could possibly result in increased efficiencies and lower costs for both operations. Whether it would be possible for a common firm to be awarded contracts for both systems, or for the City and the County to realize a savings in the costs of system operation by contracting with a common firm, is uncertain, and would depend upon the bids submitted by the private firms competing for both the city and county contracts. However, inasmuch as both Waukesha County and the City of Waukesha may be expected to solicit bids for operation/management of their respective transit services during 1990, efforts to coordinate the two bid processes could be made. At a minimum, such efforts should include following a common timetable for the competitive bid processes for both systems, and awarding contracts for the same period of time. Further efforts at coordination could possibly include issuing a common announcement indicating that separate requests for proposals were being solicited by the City and the County, or combining county contract bus services and city management services into a single request for proposals. These last two coordination efforts may be more difficult to implement, as

they would require one unit of government to act as the lead agency in soliciting service proposals for both the County and the City.

Advisory Committee Comments

After reviewing the foregoing recommendations pertaining to the use of existing city or county staff resources to increase the capability of the Waukesha County Transportation Department to administer the County's public transit program, Committee members representing the City of Waukesha and the Waukesha County Department of Aging indicated that it was unlikely that existing staff resources could be used to assist the Transportation Department. In this respect, both the City and the County Department of Aging representatives indicated that existing staff resources were now fully committed by the work entailed in administering the respective transportation programs, and that no excess staff time was available which could be used to provide even minimal assistance to the Transportation Department. Consequently, these Committee members believed that there would have to be some increase in administrative costs in order to expand the staff resources available to administer the County's public transportation program if city or county staff resources were to be used.

SPECIALIZED TRANSPORTATION SERVICES FOR HANDICAPPED PERSONS

As a condition for receiving federal transit assistance, Waukesha County is required to provide public transit services which can be effectively used by handicapped persons who are unable to use the transit services provided for the general public. This requirement had been most recently specified in regulations issued by the U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), on May 23, 1986, which amended regulations previously issued by the Department governing nondiscrimination on the basis of handicap in federally assisted public transportation programs relative to the nondiscrimination requirements of Section 504 of the federal Rehabilitation Act of 1973. The amended regulations issued by UMTA required each recipient of federal transit assistance under the UMTA Sections 3, 5, 9, or 9A programs that operate a bus system serving the general public to document and submit to UMTA for review its program for providing public transportation service to handicapped persons. A report presenting Waukesha County's proposed public transportation program for handicapped persons was completed by the Regional Planning Commission staff at the request of Waukesha County, and transmitted to UMTA in June 1987.¹

Since 1978, the County has provided public transportation services for handicapped persons in compliance with previously issued federal regulations through the parallel commuter bus transportation project administered by the Waukesha County Department of Aging. The specialized transportation service

¹See SEWRPC Memorandum Report No. 22, A Public Transit Program for Handicapped Persons--Waukesha County Transit System, June 1987.

provided under this project is designed to provide mobility to handicapped persons unable to use the regular and commuter bus services subsidized by Waukesha County. Under the current program, Waukesha County offers a door-to-door, lift-equipped van service to handicapped individuals for trips with origins and destinations within one mile of both sides of the bus routes subsidized by the County. This specialized service is currently administered by the Waukesha County Department of Aging in conjunction with two other specialized transportation projects--the Ride Line and the PM Ride Line projects--administered by the Department.

Waukesha County's recommended public transportation program for handicapped persons proposes that a number of changes be made to the County's current handicapped transportation program. The existing and proposed characteristics of the specialized transportation service provided under the County's program are presented in Table 73. Under the County's proposed program, modifications would be made to the existing service provided under the parallel commuter bus transportation project to satisfy the minimum service criteria specified under the current regulations for specialized transportation services. These minimum service characteristics are also set forth in Table 73. Such modifications include expanding the eligibility for the specialized service provided under the project to include persons under 18 years of age, and expanding the days and hours the service is provided to be consistent with the days and hours of the County's regular bus service for the general public. Changes to the days and hours of the specialized service are necessary because the County's expenditures on the current service provided under the project are estimated to be substantially below the cap level of expenditures prescribed under the current regulation.² Changes to the service eligibility requirements are necessary regardless of the County's expenditure level for the service.

No changes would be required to be made to the other existing service characteristics of the specialized service, as they currently meet the minimum service criteria. The County would, however, modify the fares charged for the service to be similar to those charged under the two specialized transportation projects administered by the Waukesha County Department of Aging. This

²Under the current regulation, each recipient of federal transit assistance funds is required to meet the minimum service criteria for whichever service option it chooses to provide transit service to handicapped persons, subject to a "cap"--or maximum required--level of annual expenditures by the recipient. A cap level of annual expenditures equal to 3 percent of the recipient's average operating expenses for all public transportation services provided, calculated based upon projected current year expenditures and expenditures for the two immediately preceding fiscal years, has been set forth in the final rule. The recipient is not required to spend more than this limit, even if, as a result, it cannot provide a level of service which fully meets all the service criteria for the service option it has selected. If the recipient can provide a level of service which fully meets the minimum service criteria for an amount less than the expenditure limit, then the limit can be ignored.

change would simplify the administration of all three projects. In addition, the County would make some minor modifications to the service area and the nature of the specialized transportation service provided within portions of the areas served by the project to conform with what is allowed under the current federal regulation. This would involve providing point-to-point rather than origin-to-destination service within the areas served by the peak-hour commuter routes subsidized by the County, and adjusting the area served by, and the times of operation of, the origin-to-destination service provided under the project to correspond with the area and times of the transit service for the general public provided on the regular bus routes subsidized by the County (see Map 26).

In the report documenting the County's handicapped transportation program submitted to UMTA, the County had proposed implementing these changes to the parallel commuter bus transportation project on January 1, 1988, following notification by UMTA that the County's proposed program had been approved. Due to delays experienced by the UMTA staff in reviewing the County's proposed handicapped transportation program, the County has not yet received any notification that its proposed program has been approved. Consequently, the County has delayed taking action toward implementing the proposed changes to the service characteristics discussed above.

It should be noted that while Waukesha County has proposed that the specialized transportation service provided under its handicapped transportation program continue to be provided by the Waukesha County Department of Aging, the provision of the service by the Department of Aging would not be essential to the project. Instead, Waukesha County could contract for part of the specialized service--such as the service needed to expand the project's current days and hours of operation--from a private transportation company and have the Department of Aging continue to provide the service during the existing days and hours of operation, or the County could choose to contract with a private transit operator for all the specialized transportation service. Contracting with a private transit company for all or part of the recommended service could reduce or eliminate any potential problems faced by the Department of Aging in providing the service, and would also serve to implement a current federal policy directed at increasing the involvement of private enterprise in the provision of public transit services.

It should also be noted that the proposed changes to the County's fixed-route transit services for the general public discussed in a previous section of this chapter could affect the specialized transportation service the County provides under its public transportation program for handicapped persons. Should the County decide to eliminate the fixed-route bus services previously identified, some of the proposed changes to its handicapped transit program would not be required. For example, the elimination of weekend and holiday bus service for the general public would eliminate the need to expand the days and hours of operation of the County's specialized transportation service for handicapped persons to include weekend and holiday hours. The elimination of fixed-route bus service west of the Goerke's Corners public transit station would also eliminate the need to provide point-to-point specialized transportation service along these routes. The potential impacts of not making these changes to the County's handicapped transit program include a reduction in

Table 73

**EXISTING AND PROPOSED CHARACTERISTICS OF THE SPECIALIZED
TRANSPORTATION SERVICE FOR HANDICAPPED PERSONS PROVIDED BY
WAUKESHA COUNTY TO COMPLY WITH CURRENT FEDERAL REGULATIONS**

Service Characteristic	Minimum Service Criteria for Specialized Transportation Service Under Federal Regulations ^a	Characteristics of Specialized Transportation Service Provided Under the Parallel Commuter Bus Project	Characteristics of Existing Contract Bus Services Subsidized by Waukesha County	
			Regular Transit Service	Peak-Hour Commuter-Oriented Service
Eligibility	All persons who, by nature of their handicap, are physically unable to use the recipient's regular bus service for the general public	All handicapped Waukesha County residents 18 years of age and older who would normally use the regular bus service if it were accessible	All persons physically capable of using a regular transit bus	All persons physically capable of using a regular transit bus
Response Time	Service provided within 24 hours of time request for service is made	Service provided on a 24-hour, advance-reservation basis	Service provided on the basis of regular fixed schedules	Service provided on the basis of regular fixed schedules
Restrictions or Priorities Placed on Trips	None	None	None	None
Fares	Fares comparable to fares for a trip of similar length made at a similar time of day charged to a user of the recipient's regular bus service for the general public ^d	Same fares as those charged patrons on county-subsidized bus service for the general public	Base adult cash fares vary with length of trip from a minimum of \$1.25 per one-way trip to a maximum of \$1.85 per one-way trip	Base adult cash fares vary with length of trip from a minimum of \$1.25 per one-way trip to \$3.35 per one-way trip
Hours and Days of Operation	Service provided on same days and during same hours as the recipient's regular bus service for the general public	Weekdays: 8:00 a.m.-4:30 p.m. Saturdays: No service Sundays and holidays: No service	Weekdays: 5:30 a.m.-10:00 p.m. Saturdays: 8:00 a.m.-10:00 p.m. Sundays and holidays: 11:00 a.m.-10:00 p.m.	Weekdays: 6:00 a.m.-8:30 a.m. 4:00 p.m.-6:30 p.m. Saturdays: No service Sundays: No service
Service Area	Service provided throughout the same geographic area served by the recipient's regular bus service for the general public ^e	Service provided between origins and destinations located within one mile on either side of those portions of all subsidized bus routes where stops are made	Area within a one- to two-mile-wide corridor along local and express bus routes operated between the City of Waukesha and the Brookfield Square Shopping Center in Waukesha County and the Milwaukee central business district in Milwaukee County	Areas around park-ride lots and bus stops along commuter bus routes operated between the Village of Menomonee Falls and the City of Oconomowoc in Waukesha County and the Milwaukee central business district in Milwaukee County

Service Characteristic	Proposed Characteristics of Specialized Transportation Service Provided Under the Parallel Commuter Bus Transportation Project as Modified to Meet New Federal Regulations	
	Origin-to-Destination Service ^b	Point-to-Point Service ^c
Eligibility	All physically handicapped Waukesha County residents who would normally use the regular bus service if it were accessible	All physically handicapped Waukesha County residents who would normally use the regular bus service if it were accessible
Response Time	Services provided on a 24-hour, advance-reservation basis	Service provided on a 24-hour, advance-reservation basis
Restrictions or Priorities Placed on Trips	None	None
Fares	\$1.00 per one-way trip for travel within one community within Waukesha County; \$2.00 per one-way trip for travel between communities within Waukesha County; \$3.00 per one-way trip for travel between Waukesha and Milwaukee Counties	\$1.00 per one-way trip for travel within one community within Waukesha County; \$2.00 per one-way trip for travel between communities within Waukesha County; \$3.00 per one-way trip for travel between Waukesha and Milwaukee Counties
Hours and Days of Operation	Area A^e Weekdays: 5:30 a.m.-10:00 p.m. Saturdays: 8:00 a.m.-10:00 p.m. Sundays and holidays: 11:00 a.m.-10:00 p.m. Area B^e Weekdays: 6:30 a.m.-7:00 p.m. Saturdays: 8:00 a.m.-6:00 p.m. Sundays and holidays: No service	Weekdays: 6:00 a.m.-8:30 a.m. 4:00 p.m.-6:30 p.m. Saturdays: No service Sundays: No service
Service Area	Area within one mile on either side of regular bus routes subsidized by Waukesha County	Park-ride lots, terminals, and bus stops along commuter bus routes subsidized by Waukesha County

Footnotes to Table 73

^aSee "Nondiscrimination on the Basis of Handicap in the Department of Transportation Financial Assistance Program: Final and Proposed Rule," Federal Register, Volume 51, No. 100, May 23, 1986, pp. 18994-19038.

^bSpecialized transportation provided to serve trips made by handicapped persons between origins and destinations located within one mile on both sides of the subsidized bus routes providing regular bus service during both the peak and nonpeak hours of the day. The regular bus routes subsidized by the County include two bus routes operated between downtown Milwaukee and the City of Waukesha, and one bus route operated between the Milwaukee County line and the Brookfield Square Shopping Center.

^cSpecialized transportation service provided to serve trips made by handicapped persons between the bus stops, terminals, and park-ride lots served by the peak-hour commuter bus routes subsidized by the County. The commuter bus routes subsidized by the County include two bus routes operated between downtown Milwaukee and the City of Oconomowoc, and one bus route operated between downtown Milwaukee and the Village of Menomonee Falls.

^dIn determining the comparability of fares charged on a recipient's fixed-route bus service and specialized transportation service, UMTA will consider as the basis the fare which the individual would be charged for making the trip on the recipient's fixed-route bus service if he or she were not handicapped.

^eService areas shown on Map 26.

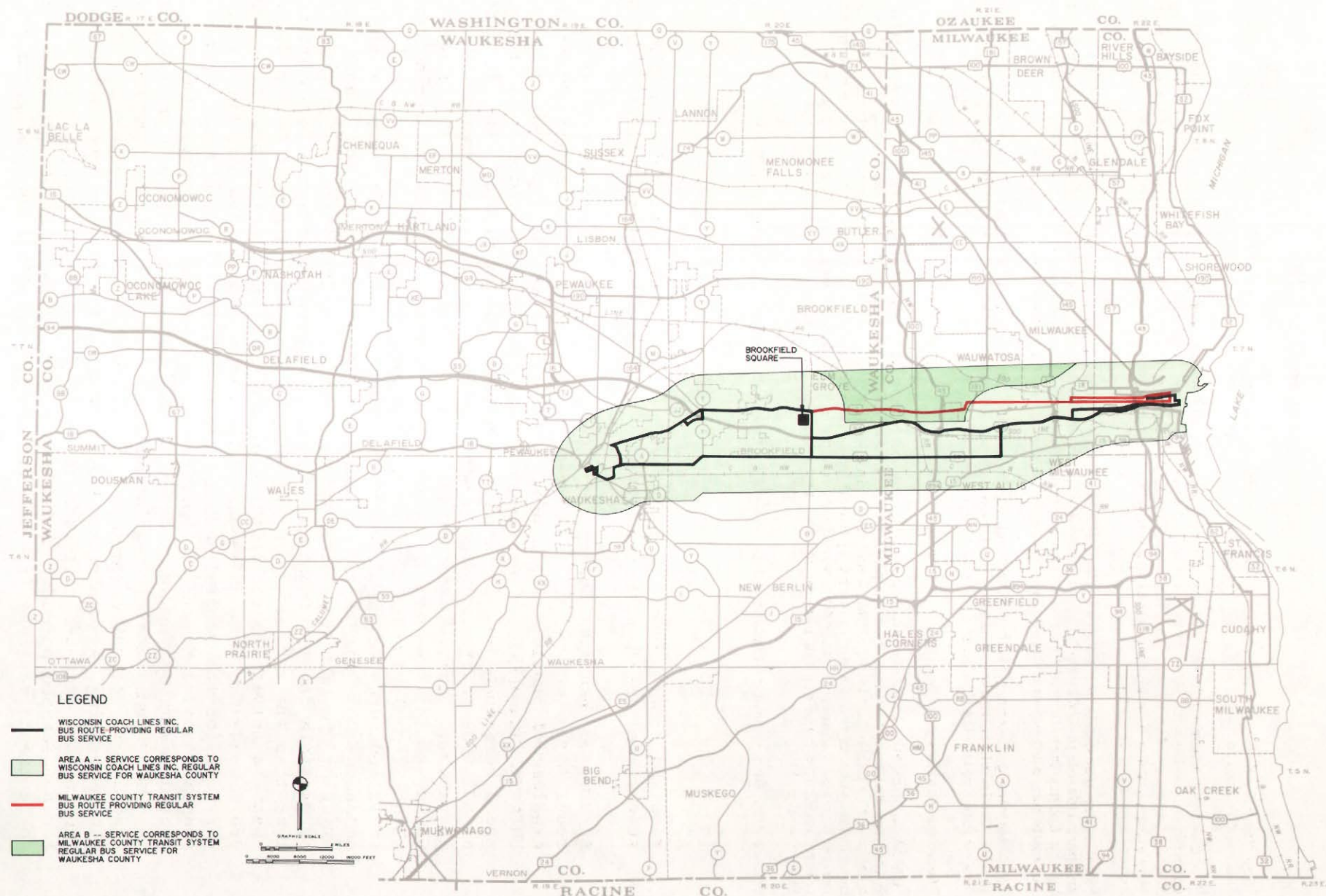
^fUMTA has indicated that specialized transportation service should be provided between all points of origin and destination within the basic service area of a recipient's regular bus service. In determining the extent of the basic service area for a recipient's regular bus service, UMTA has also indicated that the area need not encompass extended commuter or express bus routes, such as those which may be operated by a recipient only during peak hours to more distant exurban points. For such peak-hour service extending outside a recipient's basic service area, the recipient is required to provide public transit service to handicapped persons only to and from the same points--terminals, bus stops--served by its buses for the general public.

Source: U. S. Department of Transportation, Waukesha County Department of Aging, and SEWRPC.

required county funds, and improved chances for continued operation of the specialized transportation service by the Waukesha County Department of Aging.

As long as Waukesha County continues to operate all of its existing fixed-route bus services, it will need to make all of the modifications to its handicapped public transit program documented in the report it submitted to UMTA in June 1987, as described above. The County would not be required to spend more than its cap level of expenditures--which, for 1988, is estimated at \$32,000--on its modified program to meet federal requirements. Based upon its current annual expenditure level of about \$7,000 on its program, the County could, however, be required to increase its program expenditures by about \$25,000 in order to reach its cap expenditure level. The actual increase in expenditures required would depend upon the demand for service during the expanded days and hours of operation. Based upon the low demand for the existing specialized transportation service provided under the program, it may be possible for the County to provide the proposed program for substantially less than the cap level of \$32,000. In the event Waukesha County determines that the service characteristics of the parallel commuter bus transportation project should be revised to reflect the elimination of fixed-route bus services for the general public, the County will be required to present the proposed revisions to its handicapped transportation program to the handicapped community, in accordance with the public participation process outlined in the final federal regulation--including soliciting comments from the handicapped community through a formal public comment period and through a public hearing. A report would also need to be prepared by the County documenting the proposed revisions to the Waukesha County public transit program for handicapped persons; the schedule for implementing the proposed changes; the comments received from the handicapped community concerning the proposed

**PROPOSED SERVICE AREA FOR ORIGIN-TO-DESTINATION SERVICE PROVIDED
UNDER WAUKESHA COUNTY PARALLEL COMMUTER BUS TRANSPORTATION PROJECT**



Source: SEWRPC.

program revisions; and Waukesha County's response to significant comments received. This report would then need to be submitted to UMTA for its review and ultimate approval.

FINANCIAL COMMITMENT

A commitment of funds will be required to subsidize the annual operation of the recommended transit system. Available federal and state funds are recommended to be drawn upon to reduce the county financial commitment toward the annual operating costs of the transit system. This section of the chapter identifies the required financial commitment for operation of the recommended transit system over the planning period; suggests how this commitment might be shared among available funding sources; and presents an analysis of the capacity of available funding sources to provide the required monies over the planning period.

Financial Performance

Projections of ridership, expenses, revenues, and public subsidies presented in the previous chapter for the recommended alternative--Alternative 5--assumed the implementation of all proposed service changes in 1989. The financial performance projections in this chapter conservatively assume that the recommended service changes will be implemented as conditions warrant over the planning period. Such projections for the county transit system also serve as the basis for the assessment of financial capacity presented in a later section of this chapter. All financial projections are expressed in estimated "year of expenditure" dollars, and are based upon the future scenario which assumes a continuation of past trends of declining transit ridership and relatively low motor fuel prices (see Table 58 in Chapter VII).

Table 74 presents information on the ridership and financial performance of the transit services for which it is recommended that Waukesha County retain responsibility. This would include all bus services provided over Routes No. 1, 2, 3, 4, 10, and 79. Similar information is presented in Table 75 for the single bus route which has been recommended to be operated between downtown Waukesha and the Brookfield Square Shopping Center, with local funds jointly provided by Waukesha County and the City of Waukesha. As the responsibility for overseeing the operation of this bus route could rest with either the County or the City, this route has been considered separately from the other bus routes, which are recommended to remain the responsibility of Waukesha County. The information presented in these tables reflects assumptions concerning when future conditions are likely to warrant, or permit, the implementation of the recommended modifications to the county and city transit services. Based upon projections relative to the maintenance of the existing transit services, as presented in the previous chapter for the status quo alternative, the County should be able to maintain the existing transit services during 1989 and still stay within desired county budget limits for the public transit system. By 1990, however, the County will need to begin implementing the recommended service reductions by eliminating weekend and holiday service, plus some weekday midday bus runs, in order to keep county funding requirements within desired budget limits. By 1991, the County will need to implement the remaining recommended service reductions, consisting of eliminating all bus service west of the Goerke's Corners public transit station and restructuring the Waukesha-to-Milwaukee bus service, including the

Table 74

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE OF THE
WAUKESHA COUNTY TRANSIT SYSTEM WITH THE STAGED
IMPLEMENTATION OF RECOMMENDED SERVICE CHANGES: 1987-1992**

Operating Characteristic	1987 Unaudited	Projected ^a				
		1988	1989	1990	1991 ^b	1992 ^b
Annual Service Provided						
Revenue Vehicle Hours	18,810	18,250	18,090	14,990	11,950	12,080
Revenue Vehicle Miles	341,800	331,900	329,600	283,100	248,700	251,500
Service Productivity						
Annual Revenue Passengers	266,200	256,100	251,100	233,400	210,600	216,600
Passengers per Vehicle Hour	14.2	14.0	13.9	15.6	17.6	17.9
Passengers per Vehicle Mile	0.78	0.77	0.76	0.82	0.85	0.86
Service Cost						
Total Annual Operating Expenses ^c	\$994,500	\$1,043,500	\$1,092,900	\$1,026,800	\$886,500	\$929,800
Total Annual Operating Revenue	351,000	313,000 ^d	333,500	308,700	272,300	282,600
Total Annual Operating Deficit	643,500	730,500	759,400	718,100	614,200	647,200
Sources of Required Public Funds						
Federal						
Operating Assistance ^e	\$226,900	\$ 183,300	\$ 174,100	\$ 165,400	\$157,100	\$149,200
Capital Assistance ^f	0	81,200	81,200	73,200	58,100	59,200
Subtotal	\$226,900	\$ 264,500	\$ 255,300	\$ 238,600	\$215,200	\$208,400
State						
Operating Assistance ^g	\$372,400	\$ 450,000	\$ 463,600	\$ 433,500	\$370,300	\$388,500
Local						
Waukesha County Funds ^c	44,200 ^c	16,000 ^c	40,500 ^c	46,000 ^c	28,700 ^c	50,300 ^c
Total	\$643,500	\$ 730,500	\$ 759,400	\$ 718,100	\$614,200	\$647,200
Service Effectiveness						
Total Expense per Passenger	\$3.74	\$4.07	\$4.35	\$4.40	\$4.21	\$4.29
Total Revenue per Passenger	1.32	1.22 ^h	1.33	1.32	1.29	1.30
Total Deficit per Passenger	2.42	2.85	3.02	3.08	2.92	2.99
Percent of Expenses Recovered Through Operating Revenues	35.3	30.0	30.5	30.1	30.7	30.4

^aBased upon the scenario assuming a continuation of past trends (see Table 58 in Chapter VII).

^bExcludes figures for joint Waukesha County/City of Waukesha bus service between downtown Waukesha and the Brookfield Square Shopping Center to be implemented in 1991 (see Table 75).

^cFigures do not include funds provided by the existing contract private operator of Routes No. 1, 2, 3, and 4 to cover its annual operating expenses not funded through operating revenues or public funds. These funds are estimated at \$161,800 in 1988; \$148,700 in 1989; \$134,400 in 1990; \$106,300 in 1991; and \$111,500 in 1992. Includes capital depreciation charges on all routes.

^dExcludes \$28,100 in passenger revenues not anticipated by transit operators during negotiations for 1988 service contracts. Such increases are expected to result from fare increases implemented during 1988 and from higher ridership levels than those assumed by transit operators, and would accrue directly to the contract transit operators who have assumed the risk of increases and decreases in passenger revenues under the terms of their service contracts with Waukesha County. These revenues have been excluded because they represent funds which Waukesha County cannot use to reduce operating deficits for contract transit services.

^eAssumes that Waukesha County and the City of Waukesha will continue to negotiate an equal division of the UMTA Section 9 operating assistance funds available to the transit operators in Waukesha County between 1989 and 1992.

^fUMTA Section 9 capital assistance funds made available through capital-cost-of-contracting policy. Represents 80 percent of total capital depreciation and overhead expenses for the contracted bus service over Routes No. 1, 2, 3, and 4 operated by a private transit operator.

^gRepresents 37.5 percent of total eligible operating expenses, which do not include the capital depreciation charges for Routes No. 10 and 79 operated by Milwaukee County Transport Services, Inc., with publicly owned equipment.

^hFigure shown is based on contract revenues and excludes additional passenger revenues discussed in Footnote d. If such revenues were included, the total revenue per passenger for 1988 would be estimated at \$1.33.

Source: SEWRPC.

service changes recommended within the Blue Mound Road corridor between downtown Waukesha and the Brookfield Square Shopping Center. This staging would result in the implementation of all recommended service reductions and modifications by calendar year 1991.

With the staged implementation of the recommended service changes, transit service levels on the regular routes operated by the County, as measured in revenue vehicle miles of service provided, would decline by about 24 percent between 1989 and 1992. Ridership levels on these county transit services

Table 75

**ANNUAL RIDERSHIP AND FINANCIAL PERFORMANCE OF THE JOINT
WAUKESHA COUNTY/CITY OF WAUKESHA BUS SERVICE BETWEEN DOWNTOWN
WAUKESHA AND THE BROOKFIELD SQUARE SHOPPING CENTER: 1991-1992**

Operating Characteristic	Projected ^a	
	1991	1992
Annual Service Provided		
Revenue Vehicle Hours	9,800	9,870
Revenue Vehicle Miles	130,300	131,200
Service Productivity		
Annual Revenue Passengers	113,700	125,100
Passengers per Vehicle Hour	11.6	12.7
Passengers per Vehicle Mile	0.87	0.95
Service Cost		
Total Annual Operating Expenses	\$320,700	\$336,400
Total Annual Operating Revenue	54,900	61,900
Total Annual Operating Deficit	265,800	274,500
Sources of Required Public Funds		
Federal		
Operating Assistance	\$ 39,100	\$ 37,100
Capital Assistance	0	0
Subtotal	\$ 39,100	\$ 37,100
State		
Operating Assistance	\$120,300	\$126,200
Local		
City of Waukesha Funds	81,900	88,800
Waukesha County Funds	24,500	22,400
Subtotal	\$106,400	\$111,200
Total	\$265,800	\$274,500
Service Effectiveness		
Total Expense per Passenger	\$2.82	\$2.69
Total Revenue per Passenger	0.48	0.49
Total Deficit per Passenger	2.34	2.19
Percent of Expenses Recovered Through Operating Revenues	17.1	18.4

^aBased upon the assumed operation of the proposed bus service by the City of Waukesha transit system under the future scenario assuming a continuation of past trends (see Table 58 in Chapter VII).

Source: SEWRPC.

should, however, decline by only about 15 percent over this same time period. In addition, operating expenses and operating deficits for these transit services should decline by about 11 percent. The county funding requirement for these transit services would be \$50,000 by 1992, or close to the desired county budget limit of about \$45,000.

In addition, the County would be responsible for providing a portion of the local funds required to operate the bus route between downtown Waukesha and the Brookfield Square Shopping Center which is recommended to replace the city and county transit services currently operated within the Blue Mound Road corridor. Assuming operation of the route by the City of Waukesha transit system beginning in 1991, the county share of the incremental operating costs

for modifying the existing city bus route would be about \$22,000 in 1992. However, based upon Waukesha County's experience with competitively awarding service contracts during 1988, the county funds required for this operation could be less.

Fares

Fares are among the more sensitive and visible elements of transit services. Motorists, although aware of the costs incurred for motor fuel, can travel from interstate highways to county roads to city streets without ever being fully cognizant of the financial outlays required to construct and maintain the street and highway system they are using. In contrast, the transit user is reminded of the cost of his journey each time he boards the bus and pays the fare for his trip. Perhaps for this reason, questions often arise concerning the reasonableness of transit fares.

The preceding analysis was conducted assuming that aside from a reduction in fares for the proposed local bus service to be provided within the Blue Mound Road corridor east of the Goerke's Corners public transit station, no other changes would be made in the existing fares charged for Waukesha County transit services over the planning period. This assumption was made for two reasons. First, the projections of transit ridership for the county transit services presented in Tables 74 and 75 were based upon the assumed continuation of past trends of declining transit ridership. Increasing passenger fares when ridership is declining would accelerate the ridership declines and thereby threaten the continued viability of the operations. Second, the analysis of alternative fare increases performed as part of the preparation of the 1988 transit system operating budget indicated that the additional passenger revenues that would be generated by implementing moderate systemwide fare increases of 5 to 10 percent would not be enough to permit a significant reduction in the county funds required to operate the recommended transit services. Therefore, the size of the reductions in county funding required to meet future county budget limits will require service cuts rather than fare increases. Furthermore, increasing passenger fares at a time when substantial restructuring of bus services is also being implemented--as has been recommended for the Waukesha-to-Milwaukee bus service--could cause existing riders and potential new riders to focus on the higher costs for service rather than on the service changes. As a result, fare increases could stifle ridership growth on the modified services, which could be detrimental to system performance.

The preceding analyses indicate that passenger revenues generated under the existing fare structure, in combination with anticipated levels of federal and state transit assistance funds, should be sufficient for the County to operate the transit system throughout the planning period with a level of county funding within, or very close to, desired budget limits. As long as system revenues and available federal and state funds allow the County to keep its funding level within future budget limits, no increases in fares are recommended for the transit system. If changes in ridership levels, operating expenses, or federal or state transit assistance occur which are markedly different from those assumed under the preceding analysis, it may be necessary for the County to decide whether to raise fares, increase the county funding

levels, or further reduce services. If the County determines that fares should be increased, it is recommended that the County follow a policy similar to that followed for past fare increases. Under this policy, fare increases would be based upon increases in operating expenses which result from the effects of general price inflation. Under such a policy, fares for the transit system would keep pace with increases in operating expenses and would at least maintain a reasonable farebox recovery rate for the transit system. Under such a policy, increases in fares would be considered warranted when operating expenses per unit of service provided have escalated between 5 and 10 percent since the fare structure was established or last changed. At that time, fares should be increased by a comparable percentage, which could result in adult cash fare increases ranging from \$0.10 to \$0.30. This policy would also relate increases in fares directly to increases in the costs of providing transit service.

Sources of Funding

The distribution of the projected annual operating deficit for the recommended Waukesha County transit services is presented in Tables 74 and 75. As noted in Chapter IV of this report, there are two major nonlocal sources of funds which could be drawn upon to reduce the local financial commitment required for the annual operation of the recommended transit services--the U. S. Department of Transportation, Urban Mass Transportation Administration, and the Wisconsin Department of Transportation. It is recommended that transit assistance funds available under the various programs offered by these governmental agencies continue to be sought as they have in the past by Waukesha County.

Federal Funds: It is recommended that federal transit formula assistance funds continue to be sought to defray a portion of the annual operating deficit of the county transit services. The current source of such funds is the UMTA Section 9 formula block grant program, which makes federal transit assistance available to designated recipients within urbanized areas for planning, capital improvement, and operating assistance projects. Waukesha County has made use of the federal transit operating assistance funds available under the UMTA Section 9 program and its predecessor, the UMTA Section 5 program, since 1977. Beginning in 1988, the County began using formula capital assistance funds made available under the new capital-cost-of-contracting policy to offset the capital depreciation and overhead expenses charged by the private transit operator under contract with the County.

As noted in Chapter IV of this report, the Section 9 program is a formula apportioned block grant program that distributes transit assistance funds among the nation's urbanized areas on the basis of a statutory formula which, for urbanized areas with more than 200,000 population--such as the greater Milwaukee area, of which Waukesha County is a part--takes into consideration population and population density, fixed guideway route miles, bus and fixed guideway revenue vehicle miles, and transit system efficiency. Currently, the Section 9 formula funds allocated to the Milwaukee urbanized area are distributed among the designated recipient counties that have subsidized transit operations within their jurisdictions--Milwaukee County and Waukesha County--using a procedure which has been agreed upon by the three public transit

operators within the urbanized area--Milwaukee County, Waukesha County, and the City of Waukesha. Under this method, the Section 9 funds available for capital assistance are distributed among the three transit operators on the basis of need through a program of capital assistance projects jointly developed by the transit operators. Section 9 funds available for operating assistance within the urbanized area are distributed between Milwaukee and Waukesha Counties by applying the formula that was used to distribute Section 9 funds among the nation's urbanized areas. The formula transit operating assistance funds allocated to Waukesha County under this method are then divided between Waukesha County and the City of Waukesha, based upon an agreement which is annually negotiated between these two parties. Since 1987, the City and the County have agreed to share equally the total amount of federal transit operating assistance funds allocated to Waukesha County by the method applied within the Milwaukee urbanized area. The amounts of UMTA transit formula assistance funds, including both capital and operating assistance funds obligated for use by Waukesha County and the City of Waukesha during 1988 and prior years, are shown in Table 76.

At the request of the Waukesha County Highway and Transportation Committee and the City of Waukesha, alternative methods for dividing the total amount of federal transit operating assistance allocated each year to the transit operators within Waukesha County were considered by the Regional Planning Commission. This request was made because of difficulties experienced by the County and the City in reaching agreement concerning the division of Section 9 operating assistance funds for 1987 and 1988. A total of 10 alternative methods were considered by the Commission, including continuing to negotiate the division of the federal transit operating assistance funds available; applying a modified national formula to distribute funds; distributing funds based upon specific characteristics of each transit operation, including measures of ridership, service provided, system efficiency, and local funding commitment; and distributing funds based upon a weighted allocation method using measures of service utilization and service provided. The results of this analysis are presented in Table 77. The transit operating characteristics of the Waukesha County and City of Waukesha transit systems which served as the basis for distributing funds under one or more of the alternative methods are shown in Table 78. The analysis of the alternative methods was based upon a 1989 assumed level of UMTA Section 9 transit operating assistance for the transit operators in Waukesha County of \$348,200. This funding level reflects a 5 percent reduction from the funding level of \$366,524 available to Waukesha County transit operators during 1988, and was based upon the assumption that the U. S. Congress will continue to reduce funding for various federal assistance programs, including federal transit assistance, in an effort to reduce the national budget deficit.

Under the current distribution method, Waukesha County and the City of Waukesha would receive an equal share of the federal transit operating assistance funds available in 1989, amounting to approximately \$174,100. The first alternative to the current method which was considered was the use of the national formula to distribute funds between the County and the City. However, the overlapping service areas for the county and city transit systems make it impossible to apply the population and population density measures in the national formula in the manner used to apply the formula to distribute funds

Table 76

**USE OF UMTA TRANSIT FORMULA ASSISTANCE FUNDS BY
THE CITY OF WAUKESHA AND WAUKESHA COUNTY: 1977-1988**

Year	UMTA Transit Formula Assistance Funds ^a					
	Waukesha County			City of Waukesha		
	Operating Assistance	Capital Assistance	Total	Operating Assistance	Capital Assistance	Total
1977	\$ 48,800	\$ --	\$ 48,800	\$ --	\$ --	\$ --
1978	68,100	--	68,100	--	--	--
1979	78,200	2,800	81,000	--	--	--
1980	91,200	--	91,200	--	--	--
1981	281,000	--	281,000	127,200	50,900	178,100
1982	259,600	--	259,600	267,100	--	267,100
1983	252,000	--	252,000	275,200	--	275,200
1984	183,600	--	183,600	366,100	765,500	1,131,600
1985	167,700	--	167,700	231,800	320,800	552,600
1986	199,500	--	199,500	206,000	69,200	275,200
1987	226,900	--	226,900	226,900	25,500	252,400
1988	183,250	81,200	264,450	183,250	61,300	244,550

^aIncludes formula assistance funds made available through the UMTA Section 5, 9, 9A, and 9B funding programs. Figures reflect amount of funds obligated for each year.

Source: Wisconsin Department of Transportation, Bureau of Transit; City of Waukesha Transit System Utility; and SEWRPC.

among the nation's urbanized areas or among counties within the Milwaukee urbanized area. Furthermore, using population-based criteria as a measure of the actual need for transit service and federal funds is misleading, as it allows population in areas not warranting transit service to be a factor in the distribution of funds.

The problems associated with using the national formula to distribute funds between Waukesha County and the City of Waukesha led to the examination of other alternative methods which used criteria that were more appropriate for measuring the actual need for transit service, and therefore federal transit operating assistance. In this respect, the next seven alternative methods considered based the division of available federal transit operating assistance funds on a single measure reflecting the use of transit services, the amount of service provided, or the level of local funding commitment for each transit operation within the County. Measures that were considered for use as distribution criteria included revenue passengers, passenger miles of travel, revenue vehicle miles of service, total operating revenue, total operating expenses, and local funds as measured by local tax dollars and a combination of operating revenues and local tax dollars. The analysis recognized the various arguments that could be made for using any of these individual measures as the basis for dividing funds between the county and the city transit operations. However, it was concluded that it would not be appropriate to distribute available transit operating assistance funds on the basis of a single measure, as this would not take into consideration valid arguments for using the other proposed measures.

Table 77

ANALYSIS OF ALTERNATIVE METHODS FOR DISTRIBUTION OF UMTA SECTION 9 TRANSIT OPERATING ASSISTANCE FUNDS BETWEEN WAUKESHA COUNTY AND THE CITY OF WAUKESHA: 1989 ASSUMED LEVEL

Alternative	Section 9 Funds Allocated			Advantages	Disadvantages	Conclusion
	Transit Operator	Amount	Percent of Total			
1. Negotiated Division of Federal Funds Available (current method)	Waukesha County	\$174,100 ^d	50.00	Represents method which has been acceptable in past by all transit operators in urbanized area	Does not reflect any information on measures of actual need for transit service—such as utilization or amount of service provided—or efficiency of the transit operations	Not an appropriate method for distributing operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	174,100 ^d	50.00			
	Total	\$348,200	100.00			
2. Application of Modified National Formula ^a	Waukesha County	\$185,600	53.30	Based upon the same method that is used to distribute funds between nation's urbanized areas and among designated recipient counties within the Milwaukee urbanized area	Use of population and population density in national formula is not an accurate measure of the actual need for transit service and federal funds. Overlapping service areas for county and city transit systems make use of population-based criteria as a meaningful criterion for dividing funds impossible	Not an appropriate method for distributing operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	162,600	46.70			
	Total	\$348,200	100.00			
3. Equal Federal Subsidy per Revenue Passenger	Waukesha County	\$151,119	43.40	Recognizes that one actual measure of the need for transit service and, accordingly, federal funds, is the level of transit ridership generated by the service provided	Does not reflect information on different lengths of trips served by each transit operator, and the additional costs which can be associated with serving trips of longer length such as the commuter trips served by the Waukesha County transit system	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	197,081	56.60			
	Total	\$348,200	100.00			
4. Equal Federal Subsidy per Passenger Mile	Waukesha County	\$286,290	82.22	Recognizes the importance of transit ridership as an indicator of the need for transit service, as well as the difference in costs involved in serving trips of different lengths	Does not reflect the efficiency of different transit operations in providing transit service	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	61,910	17.78			
	Total	\$348,200	100.00			
5. Equal Federal Subsidy per Revenue Vehicle Mile	Waukesha County	\$168,041	48.26	Recognizes that one actual measure of the need for federal funds is the amount of transit service provided	Does not reflect the productivity or cost efficiency of the service provided	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	180,159	51.74			
	Total	\$348,200	100.00			

Table 77 (continued)

Alternative	Section 9 Funds Allocated			Advantages	Disadvantages	Conclusion
	Transit Operator	Amount	Percent of Total			
6. Equal Federal Subsidy per Dollar of Operating Revenue	Waukesha County	\$235,070	67.51	Recognizes the relative efficiency of each transit service in generating revenues to offset expenses incurred in providing transit	Is not sensitive to local policy decisions concerning what fares to charge for transit services or efficiency of system provided	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	113,130	32.49			
	Total	\$348,200	100.00			
7. Equal Percentage of Expenses Subsidized by Federal Funds	Waukesha County	\$177,408	50.95	Recognizes the method which is used under the current state urban mass transit operating assistance program to distribute aids to urban transit operators	Is not sensitive to the productivity or efficiency of the transit service provided	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	170,792	49.05			
	Total	\$348,200	100.00			
8. Equal Percentage of Potential Local Subsidy Covered by Federal Funds ^b	Waukesha County	\$130,331	37.43	Recognizes the transit operator which has the largest potential local tax burden and commitment to transit services provided	Is not sensitive to local policy decisions concerning what fares to charge for transit services or efficiency of service provided	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	217,869	62.57			
	Total	\$348,200	100.00			
9. Equal Federal Subsidy per Dollar of Local Commitment to Transit as Measured by Operating Revenue and Local Funds in Previous Year	Waukesha County	\$178,627	51.30	Recognizes the relative level of local funding commitment to transit services provided by each operator	Is not sensitive to portion of local funds provided through tax levy	May be appropriate for distributing a portion, but not all, of the federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	169,573	48.70			
	Total	\$348,200	100.00			
10. Weighted Allocation Based on Measures of System Utilization and Amount of Service Provided ^c	Waukesha County	\$183,935	52.82	Recognizes the most important measures of the actual need for transit service and federal funds	Complex allocation method would be more difficult to apply than current method, the national formula, or methods based on a single criterion	Would represent most reasonable method for distributing federal transit operating assistance funds between Waukesha County and the City of Waukesha
	City of Waukesha	164,265	47.15			
	Total	\$348,200	100.00			

^aThe national formula distributes Section 9 funds to urbanized areas with one million or more persons, such as the Milwaukee urbanized area, in four distinct tiers, with the distribution of funds under the first two tiers based upon the 1980 population and population density of each urbanized area, and the distribution of funds under the last two tiers based upon operating data for the transit systems within the urbanized area, including total revenue vehicle miles of service and passenger miles of travel weighted by an efficiency factor. Because both the City of Waukesha and Waukesha County transit systems have overlapping service areas and service area populations, the portion of Section 9 funds allocated to Waukesha County as a whole under the population and population density tiers would be divided equally between the County and the City under this allocation method. The remaining funds allocated to Waukesha County under the last two tiers would be distributed in proportion to the operating characteristics of the two systems, as would be done with a strict application of the national formula.

^bThe potential local subsidy for each transit operator would be represented by the operating expenses for each transit operator minus the operating revenues and transit operating assistance it received.

^cUnder this allocation method, the total amount of Section 9 funds allocated to Waukesha County as a whole would be distributed as follows: 25 percent based upon total revenue passengers within the County; 25 percent based upon the proportionate share of passenger miles of travel within the County; and 50 percent based upon total revenue vehicle miles and total revenue vehicle hours operated within the County—25 percent under each category.

^dBased upon the negotiated equal division of the total amount of Section 9 funds allocated to the transit operators within Waukesha County during 1988.

Source: SEWRPC.

Table 78

**TRANSIT OPERATING CHARACTERISTICS REPORTED BY
WAUKESHA COUNTY AND THE CITY OF WAUKESHA: 1987^a**

Characteristic	Transit Operator	
	City of Waukesha	Waukesha County
Revenue Passengers ^b	347,264	266,255
Passenger Miles	1,165,683	5,389,905
Revenue Vehicle Miles	392,834	366,386
Revenue Vehicle Hours	29,761	17,794
Operating Expenses	\$957,318	\$994,551
Operating Revenues	\$168,955	\$351,062
Operating Deficit		
Federal Share	\$226,901	\$226,902
State Share	335,263	372,413
Local Share	206,199	44,174
Total	\$788,363	\$643,489

^aUnless otherwise noted, data reflect figures included in UMTA Section 15 reports submitted by each transit operator for 1987 as used to distribute UMTA Section 9 funds among the nation's urbanized areas and between designated recipient counties within the Milwaukee urbanized area.

^bBased upon operating data reported to the Wisconsin Department of Transportation by each transit operator during 1987.

Source: Waukesha County Transportation Department, City of Waukesha Transit System Utility, and SEWRPC.

The most reasonable method for distributing federal transit operating assistance funds between Waukesha County and the City of Waukesha would be one which considered a number of the factors reflecting the need for transit service. The most important of such factors would be found in measures of the level of use for each transit service and the amount of service provided by each transit operator. Such a method is proposed under Alternative 10, which would provide for a weighted allocation of funds based upon revenue passengers and passenger miles of travel as measures of service utilization, and revenue vehicle miles and revenue vehicle hours as measures of the amount of service provided. Twenty-five percent of the total amount of federal operating assistance funds available within the County would be distributed based upon each of these criteria, with the funds distributed in direct proportion to the measures for each operator. Under this method, Waukesha County would be allocated about \$183,900, or about 53 percent, and the City of Waukesha, about \$164,300, or 47 percent, of the total federal transit operating assistance funds available. This would represent about the same percentage of distribution that would be obtained using the current method of equally sharing the amount of operating assistance available each year. Each transit operator's share of the funds available, however, would be related to, and supported by, actual measures of service need.

Based on the preceding analysis, it is recommended that Waukesha County and the City of Waukesha consider using the weighted allocation method proposed under Alternative 10 for dividing the federal transit operating assistance funds available within Waukesha County in future years, or as the basis for negotiations between these parties concerning the division of available funds.

The amount of federal transit operating assistance funds assumed to be available to Waukesha County over the planning period would range from \$174,100 in 1989 to \$149,200 in 1992. It is also recommended that Waukesha County continue to seek federal transit formula capital assistance funds available through the UMTA Section 9 program and the federal capital-cost-of-contracting policy. Such funds would be expected to range from approximately \$81,200 in 1989 to about \$59,200 in 1992. While such funds would be termed capital assistance, they would, in effect, be used as operating assistance to offset 80 percent of the annual costs incurred by the private transit operator for capital depreciation and overhead expenses in operating Waukesha County contract services. The total amount of UMTA formula assistance funds which would therefore be used by Waukesha County to help support the annual costs of system operations would range from \$255,300 in 1989 to \$208,400 in 1992.

State Funds: It is also recommended that Waukesha County continue to seek funds to offset a portion of the operating deficit from the state urban mass transportation operating assistance program administered by the Wisconsin Department of Transportation. This program, authorized under Section 85.20 of the Wisconsin Statutes, provides operating assistance to all communities of 2,500 or more persons with publicly supported transit systems. It has been assumed that sufficient state funds would be available over the planning period to provide the current maximum level of state funding, which is 37.5 percent of the total operating expenses of the transit system. The state funds assumed to be available annually over the planning period would be expected to range from \$450,000 in 1988 to \$388,500 in 1992, with the reduction in state aids over the period due to implementation of the recommended service reductions which would reduce transit system operating expenses and, in turn, state aids.

It should be noted that these amounts of state operating assistance funds are based upon the state aid program as it was in effect for calendar year 1988. Some changes were proposed in the state program during 1988 which, if implemented, could affect the amount of state aid available to Waukesha County in future years. One change that has been proposed is an increase in the state aid formula from 37.5 to 39 percent of total system operating expenses. The recent effort to enact this change was defeated when the Governor failed to approve legislation calling for this change as passed by the Wisconsin State Legislature. However, similar legislation could be approved at some time during the planning period. Should this occur, an additional \$15,000 to \$20,000 in state aids would be available to Waukesha County which it, in turn, could use to reduce the local tax levy in support of the county transit system.

A second change was recently recommended by a special committee of State legislators, local elected officials, transit professionals, and private citizens created by the Wisconsin Department of Transportation to assess and redefine the state role in support of public transit. This change would require local communities to contribute a minimum amount of funds toward the operation of their local transit system as a condition for receiving the full amount of state aid potentially available under the current program. The intent of this change was to require communities applying for state transit operating assistance funds to show that they have a local commitment to the

provision of transit services. The Committee's recommendation did not specify the minimum amount or allowable sources of local matching funds, but did specify that the requirement should be phased in over three years, beginning in 1990. At the present time, it is not known whether or how this change will be implemented. It is possible that exceptions from the required local match will be made for transit operators that competitively procure their entire transit operation, such as Waukesha County.

Local Funds: Waukesha County would be responsible for that portion of the annual operating deficit not covered by federal or state transit assistance funds. The county share of the operating deficit for all county transit services, except the bus service proposed to be operated between downtown Waukesha and the Brookfield Square Shopping Center, is expected to range from \$16,000 in 1988 to \$50,000 by 1992. The recommended bus service between downtown Waukesha and the Brookfield Square Shopping Center is expected to be jointly funded by Waukesha County and the City of Waukesha, and would be implemented in 1991. By 1992, the county share of the operating deficit for this bus service, assuming operation by the City of Waukesha transit system, would be about \$22,000, which would bring the total amount of county funds required in that year to about \$72,000. As already noted, however, should that service be competitively bid, it may be possible to reduce the county funds required to subsidize the service, based upon the results of the county actions to competitively procure transit services for 1988.

Assessment of Financial Capacity

To comply with current federal guidelines,³ an analysis of the financial capacity of Waukesha County to implement the plan recommendations was conducted. This analysis was conducted by assessing the past financial condition of Waukesha County, as well as Waukesha County's probable future financial capacity to fund the operation of the recommended transit system.

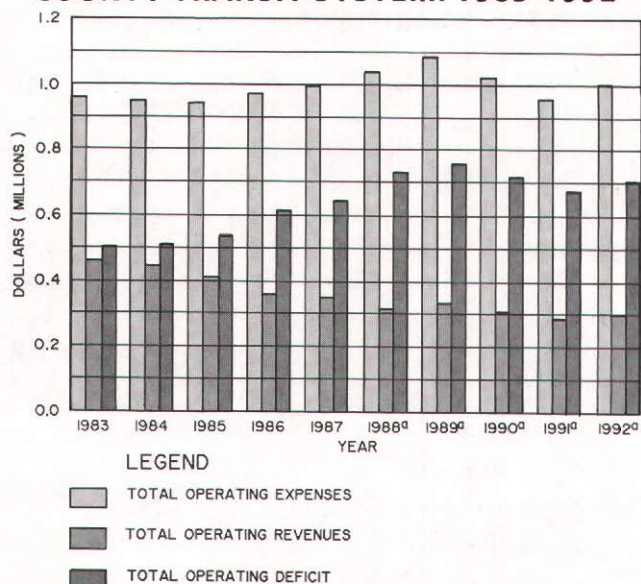
The actual transit system operating expenses, revenues, and deficits for the previous five-year period--from 1983 through 1987--are given in Figure 14, along with projections of these financial characteristics for the five-year planning period--from 1988 through 1992. Over the years 1983 through 1987, total operating expenses for the Waukesha County transit services fluctuated, decreasing by about 2 percent between 1983 and 1985, then increasing by about 5 percent between 1985 and 1987. During this period, service levels for the transit system also fluctuated, as shown in Figure 15, as the County eliminated the most inefficient bus routes.

For calendar year 1988, operating expenses for the transit system are projected to increase by about 5 percent based on the competitively bid service contracts awarded by the County during 1987. Assuming the staged implementation of the recommended transit plan, as described previously in this chapter,

³See UMTA Circular 7008.1, "Urban Mass Transportation Financial Capacity Policy," March 30, 1987.

Figure 14

**ACTUAL AND PROJECTED
OPERATING EXPENSES, REVENUES,
AND DEFICITS FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: 1983-1992**

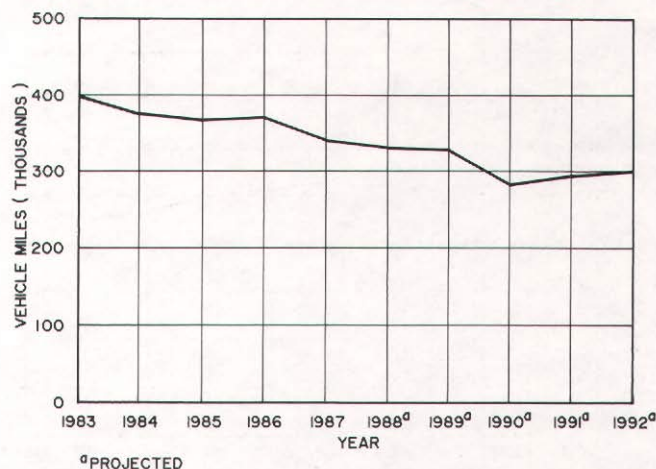


^a PROJECTED BASED ON THE ASSUMED CONTINUATION OF PAST TRENDS
(SEE TABLE 58 IN CHAPTER VII)

Source: Waukesha County Transportation Department
and SEWRPC.

Figure 15

**ACTUAL AND PROJECTED
REVENUE VEHICLE MILES OF
SERVICE FOR THE WAUKESHA
COUNTY TRANSIT SYSTEM: 1983-1992**



Source: Waukesha County Transportation Department
and SEWRPC.

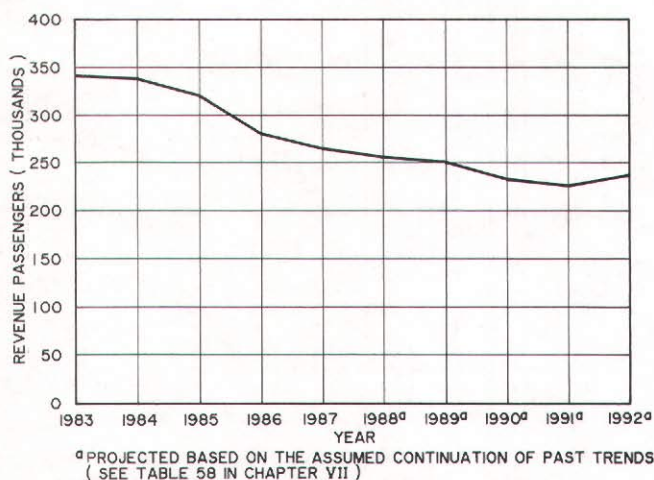
total system operating expenses are projected to increase by the 1988 rate during 1989, then decline during 1990 and 1991 as the recommended service reductions and modifications described in previous sections of this chapter are implemented. Overall, operating expenses during the planning period are projected to decrease by about 4 percent from projected 1988 levels.

Transit system operating revenues between 1983 and 1987 closely followed trends in transit ridership over the period. As can be seen in Figure 16, annual ridership on the transit system declined steadily between 1983 and 1987, decreasing by about 75,000 revenue passengers, or 22 percent, over this period. Operating revenues for the transit system followed a similar pattern, decreasing by about 23 percent between 1983 and 1987, despite increases in passenger fares implemented in 1986. The declines in annual ridership and system revenues can be attributed to several factors, including stable and declining gasoline prices over the period, as well as reductions in the amount of service provided by the transit system.

Projections of transit system operating revenues for the period 1988 through 1992 are based upon the assumed continuation of declining ridership and revenues exhibited in the recent past. The projections therefore assume a steady decline in transit system ridership and revenues, but a slower decline than that exhibited in the recent past. Projections of system ridership and revenues for 1990 and 1991 assume more substantial ridership and revenue reductions due to service reductions which are to be implemented during these

Figure 16

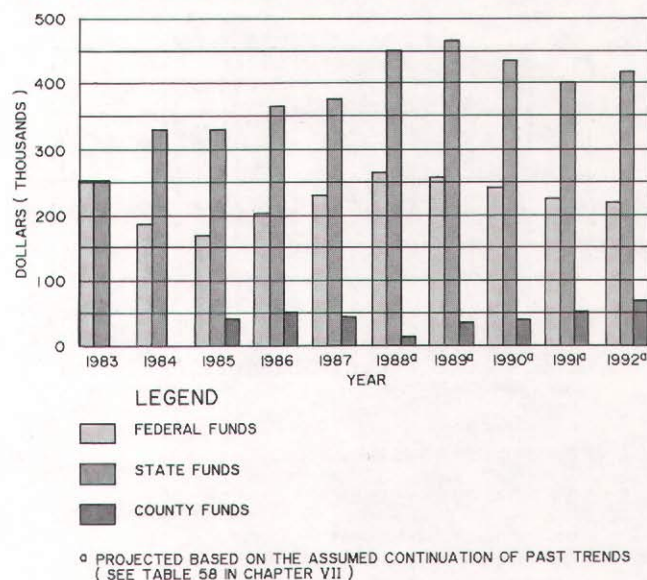
**ACTUAL AND PROJECTED ANNUAL
RIDERSHIP ON THE WAUKESHA COUNTY
TRANSIT SYSTEM: 1983-1992**



Source: Waukesha County Transportation Department and SEWRPC.

Figure 17

**ACTUAL AND PROJECTED
FEDERAL, STATE, AND COUNTY
FUNDS REQUIRED TO SUBSIDIZE THE
OPERATING DEFICIT OF THE WAUKESHA
COUNTY TRANSIT SYSTEM: 1983-1992**



Source: Waukesha County Transportation Department and SEWRPC.

years. Ridership and passenger revenues are projected to increase slightly during 1992 as a result of transit service improvements brought about by the restructuring of bus service between Waukesha and Milwaukee and within the Blue Mound Road corridor.

The total annual public funding requirement for the Waukesha County transit system over the years 1983 through 1987 increased from about \$504,000 in 1983 to about \$644,000 in 1987--an increase of about 28 percent. Based upon the county service contracts with the transit operators, the deficit for the transit system is projected to increase by about 13 percent to about \$730,000 during 1988. The 1992 operating deficit would, however, be expected to be about 3 percent below the projected 1988 deficit as a result of the service reductions and modifications that have been recommended for the transit system.

The actual and projected amounts of federal, state, and county funds needed to subsidize the annual operating deficit of the Waukesha County transit system are provided in Figure 17. Between 1983 and 1987, federal formula transit assistance funds available to the county transit system ranged from a low of about \$168,000 in 1985 to about \$252,000 in 1983. The 1988 allocation of federal formula assistance funds made available to Waukesha County amounted to \$264,500, of which \$183,300 was for operating assistance and \$81,200 for capital assistance under the new UMTA capital-cost-of-contracting policy. As can be seen in Figure 18, federal formula transit assistance funds made available to the Milwaukee urbanized area have been declining steadily since 1985, with the 1988 funding allocation representing a decrease of about 8

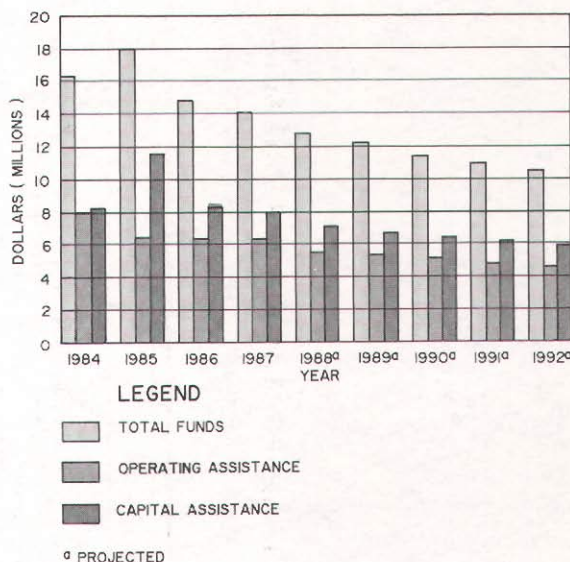
percent from 1987 levels. The projections of federal formula assistance funds available for use by Waukesha County between 1989 and 1992 assume that such funds will continue to decrease.

In contrast, state urban mass transit operating assistance funds available to the Waukesha County transit system increased steadily between 1983 and 1987. In 1987, Waukesha County received approximately \$372,400 in state aid, or about 48 percent more than the \$252,000 it received during 1983. The increased levels of state assistance during this period were the direct result of an increase--from 30 percent to 37.5 percent--in the amount of state aids for operating expenses each transit system was eligible to receive. The amounts of state aid available to Waukesha County are projected to continue to increase through 1989, when the County would expect to receive approximately \$464,000 under the existing state aid program. By 1992, however, the amount of state aid to the County would decrease to about \$417,000 as a result of service reductions and modifications implemented in the latter part of the planning period which would reduce total operating expenses for the transit system. The amount of state aid that Waukesha County would be eligible to receive in 1992 would be about 7 percent less than the amount projected for the transit system during 1988.

The funds distributed under the state urban mass transit operating assistance program are obtained through the state transportation fund, which collects revenues through state motor fuel taxes, motor vehicle registration fees, drivers' license fees, and other, miscellaneous fees. Table 79 indicates the historical trend in funding of the expenses of the Waukesha County transit system from the state operating assistance program, and compares the level of state support for this program to the total state transportation funding provided for the years 1983 through 1987. The operating assistance provided by the State of Wisconsin to the Waukesha County transit system has represented less than 1 percent of the total transit operating assistance program funds available over that period. The table also indicates that the transportation revenue fund and appropriations for the urban transit operating assistance program from the fund have increased steadily over the period. Some increase in the total trust fund and in appropriations for the operating assistance program was, therefore, projected for future years. However, while annual increases in the trust fund from 1983-1987 averaged about 9 percent, a more modest 5 percent rate of increase in the total trust fund revenues was projected for 1988 through 1992. The proportion of the trust fund revenues

Figure 18

**ACTUAL AND PROJECTED
ALLOCATION OF UMTA SECTION 9
FORMULA TRANSIT ASSISTANCE FUNDS
TO THE MILWAUKEE URBANIZED
AREA: 1984-1992**



Source: U. S. Department of Transportation, Urban Mass Transportation Administration; and SEWRPC.

Table 79

ACTUAL AND PROJECTED APPROPRIATIONS FROM THE STATE TRANSPORTATION REVENUE FUND: 1983-1992

Year	State Transportation Revenue Fund Appropriations										
	Urban Transit Operating Assistance Program							Other Program Aids and Costs		Total	
	Assistance for Waukesha County Transit System		Assistance for Other Transit Systems		Total Operating Assistance Program						
	Amount	Percent of Program Total	Amount	Percent of Program Total	Amount	Percent of Program Total	Percent of Fund Total	Amount	Percent of Fund Total	Amount	Percent of Fund Total
1983	\$ 252,000	0.68	\$ 36,939,000	99.32	\$ 37,191,000	100.00	7.93	\$ 432,043,600	92.07	\$ 469,234,600	100.00
1984	326,600	1.01	31,935,900	98.99	32,262,500	100.00	6.14	493,499,000	93.86	525,761,500	100.00
1985	328,200	0.84	38,714,300	99.16	39,042,500	100.00	7.42	487,284,200	92.58	526,326,700	100.00
1986	364,500	0.95	38,020,500	99.05	38,385,000	100.00	6.55	548,059,600	93.45	586,444,600	100.00
1987	372,400	0.85	43,247,800	99.15	43,620,200	100.00	6.74	603,660,100	93.26	647,280,300	100.00
Total	\$1,643,700	0.86	\$188,857,500	99.14	\$190,501,200	100.00	6.91	\$2,564,546,500	93.09	\$2,755,047,700	100.00
1988	\$ 450,000	0.98	\$ 45,351,200	99.02	\$ 45,801,200	100.00	6.74	\$ 633,843,100	93.26	\$ 679,644,300	100.00
1989 ^a	463,600	0.96	47,627,700	99.04	48,091,300	100.00	6.74	665,535,200	93.26	713,626,500	100.00
1990 ^a	433,500	0.86	50,062,400	99.14	50,495,900	100.00	6.74	698,811,900	93.26	749,307,800	100.00
1991 ^a	397,400	0.75	52,623,300	99.25	53,020,700	100.00	6.74	733,752,500	93.26	786,773,200	100.00
1992 ^a	416,800	0.75	55,254,900	99.25	55,671,700	100.00	6.74	770,440,200	93.26	826,111,900	100.00
Total	\$2,161,300	0.85	\$250,919,500	99.15	\$253,080,800	100.00	6.74	\$3,502,382,900	93.26	\$3,755,463,700	100.00

^aProjected.

Source: Wisconsin Department of Transportation and SEWRPC.

Table 80

ACTUAL AND PROJECTED WAUKESHA COUNTY PROPERTY TAXES: 1983-1992

Year	Waukesha County Property Taxes					
	Committed to Transit System		Committed to Other Programs and Costs		Total	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1983	\$ 0	0.00	\$ 19,522,800	100.00	\$ 19,522,800	100.00
1984	0	0.00	20,949,000	100.00	20,949,000	100.00
1985	40,000	0.18	22,056,200	99.82	22,096,200	100.00
1986	48,400	0.20	24,445,000	99.80	24,493,400	100.00
1987	44,200	0.16	27,941,400	99.84	27,985,600	100.00
Total	\$132,600	0.12	\$114,914,400	99.88	\$115,047,000	100.00
1988	\$ 16,000	0.05	\$ 31,277,100	99.95	\$ 31,293,100	100.00
1989 ^a	40,500	0.12	32,817,300	99.88	32,857,800	100.00
1990 ^a	46,000	0.13	34,454,700	99.87	34,500,700	100.00
1991 ^a	53,100	0.15	36,172,600	99.85	36,225,700	100.00
1992 ^a	72,700	0.19	37,964,300	99.81	38,037,000	100.00
Total	\$228,300	0.13	\$172,686,000	99.87	\$172,914,300	100.00

^aProjected.

Source: Waukesha County Department of Finance and SEWRPC.

appropriated for the urban transit operating assistance program during the period 1988-1992 was assumed to be the same as that for 1988. Based upon these projections, the proportion of state funds that would need to be committed to the Waukesha County transit system between 1988 and 1992 would be about the same as the proportion committed during the previous five years.

The source of Waukesha County funds used to subsidize the transit system has been the county property tax. Table 80 presents information on the actual amount of property taxes levied by Waukesha County in total and for the transit system between 1983 and 1987, and on projections of these figures for 1988 through 1992. Between 1983 and 1987, the actual Waukesha County funding requirement for the transit system ranged from \$0 in 1983 and 1984 to \$48,400 in 1986. The county funding requirement declined slightly during 1987 to about \$44,000. During the same period, the total county property tax levy increased from about \$19.5 million in 1983 to about \$28 million in 1987, or by about 10 percent per year. The proportion of the tax levy spent on the county transit program during this period has been extremely small, amounting to about 0.12 percent per year.

The county funding requirement for the transit system in 1988 is projected to be about \$16,000, representing a decrease of about \$28,000, or 64 percent, from the 1987 funding requirement. By 1992, however, the county funding requirement for the transit system--including funds for the bus service between downtown Waukesha and the Brookfield Square Shopping Center, to be jointly funded by the County and the City of Waukesha--is projected to increase to about \$72,000--more than a four-fold increase over the projected 1988 funding requirement. During the same period, some increase in total county property taxes could also be expected. For the purpose of this analysis, an average annual increase of 5 percent in the county property tax levy has been assumed for the period 1988 through 1992. This rate would be somewhat less than the actual average increase in county property taxes observed between 1983 and 1987, and would reflect efforts by the County to control future increases in property taxes. Under this assumption, total county property taxes would be projected to increase from about \$31.3 million in 1988 to \$38.0 million by 1992, or by about 21 percent. With the projected increase, the proportion of total county property tax dollars that would be required to subsidize the projected county share of the transit system operating deficit over this period would average 0.13 percent.

Based upon this analysis, it may be concluded that the projections made for the recommended transit system--including those for operating expenses, operating revenues, and operating deficits--are reasonable based upon trends observed over the five-year period between 1983 and 1987. In addition, the amount of public funds that would be required over the planning period from the identified federal, state, and county funding sources appears to be within the funding capability of each public agency. Assuming the staged implementation of the plan recommendations, the county funding requirement for the transit system is projected to increase substantially between 1988 and 1992. However, even assuming that total county property tax revenues would increase between 1988 and 1992 at a substantially lower rate than that observed during the preceding five-year period, the proportion of total county tax dollars that would be required to be committed to the transit system over the planning period would be virtually the same as the proportion that was committed between 1983 and 1987. This would indicate that Waukesha County could fund the recommended transit system during the five-year planning period with no significant increase in its past level of local funding commitment.

PLAN IMPLEMENTATION

The operating characteristics and the financial requirements of the recommended transit plan have been described in the previous sections of this chapter. In a practical sense, however, the plan is not complete until the steps required for implementation have been specified. Full implementation of the recommended plan will be dependent upon the coordinated actions of several agencies of government--the Waukesha County Board of Supervisors; the City of Waukesha Common Council; the Southeastern Wisconsin Regional Planning Commission; the Wisconsin Department of Transportation; and the U. S. Department of Transportation, Urban Mass Transportation Administration. These five public bodies have vital roles in providing the endorsement, operations, and financial support required to achieve plan implementation.

Waukesha County

The County will have the major responsibility for the actions necessary to implement the recommended transit plan, since it is the sponsoring agency for the contracted bus service provided by the transit system. Such actions will include negotiating the recommended routing and service changes with the private transit company--Wisconsin Coach Lines, Inc.--currently under contract with the County. The County will also need to negotiate with the City of Waukesha over the operation and funding of the recommended bus service between downtown Waukesha and the Brookfield Square Shopping Center; and for additional assistance from city staff in performing certain activities for the county transit program.

Because of its use of federal assistance, the County will also be responsible for satisfying all federal administrative regulations associated with the use of such funds. While the County is currently in compliance with all such regulations, the regulations will require the County to schedule and hold a public hearing prior to the major restructuring of the bus routes operated between downtown Waukesha and downtown Milwaukee. In addition, following notification by the federal Urban Mass Transportation Administration that the county-proposed public transportation program for handicapped persons has been approved, the County will need to implement the proposed service modifications to fully comply with the current federal regulations and with any other stipulations which UMTA may make as conditional to approving the program.

City of Waukesha

The recommended transit plan for Waukesha County includes a recommendation to merge the two bus services currently provided by the County and the City within the Blue Mound Road corridor over separate bus routes into one bus service using a single route operated over Blue Mound Road between downtown Waukesha and the Brookfield Square Shopping Center. It is recommended that the City work with Waukesha County to implement this service change, which will eliminate a modest duplication of existing service in the Blue Mound Road corridor and, more importantly, the potential for a substantial duplication of future bus service. It is further recommended that the City negotiate with the County toward the provision of only one bus service to serve travel within the Blue Mound Road corridor, and thereby determine which level of government is to provide the service, and how the service is to be jointly funded by the City and the County. Until such an agreement is reached, it is recommended that County and City consider actions which would improve coordination of existing county bus services with city bus services, as described in the previous chapter. It is also recommended that the City consider providing staff assistance to the County in performing certain activities for the county transit program. Also, the City should consider coordinating with the County the procurement of a private firm to manage its transit system.

Southeastern Wisconsin Regional Planning Commission

The Southeastern Wisconsin Regional Planning Commission has the statutory authority for carrying out a continuing, comprehensive, and cooperative areawide land use and transportation planning process in the seven-county Southeastern Wisconsin Region. The Commission has regularly prepared short-

and long-range transportation plans for the Region which are consistent with federal laws and regulations. Under such regulations, the Commission is responsible for developing and annually updating a transportation improvement program for the Region which identifies both highway- and transit-related improvement projects for an upcoming five-year period; provides for the staging of improvements over the five-year program period; includes estimates of the costs and revenues over the program period; and relates the improvements recommended in the program to the adopted transportation plan for the Region.

In order for Waukesha County to receive the federal transit assistance funds necessary to fully implement the recommended transit plan, operating assistance and capital-cost-of-contracting projects for the recommended transit system must be included in the transportation improvement program annually submitted by the Commission to the U. S. Department of Transportation. Accordingly, it is recommended that the Southeastern Wisconsin Regional Planning Commission endorse the recommendations of the county transit system plan and program and, at the specific request of Waukesha County, include the recommended operating and capital projects for the county public transportation program in the transportation improvement program for the Southeastern Wisconsin Region. It is also recommended that, should Waukesha County be unable to arrange for coordinated use of City of Waukesha staff to provide assistance for county transit program activities, the Regional Planning Commission agree to provide such staff assistance upon county request.

U. S. Department of Transportation, Urban Mass Transportation Administration, and the Wisconsin Department of Transportation

Both the U. S. Department of Transportation, Urban Mass Transportation Administration, and the Wisconsin Department of Transportation administer programs which provide financial assistance for public transit systems. It has been recommended that Waukesha County maximize its use of funds available under such programs to minimize the local public costs of the recommended transit plan. It is also recommended that both the above agencies endorse the recommendations of the transit plan as a guide for the programming, administration, and granting of federal and state transit assistance funds for the County's public transportation program.

Subsequent Plan Adjustment

No plan can be permanent in all its aspects. Monitoring of changing conditions and of the effectiveness of implemented plan recommendations is essential if the validity and viability of the adopted plan are to be maintained. It is recommended that Waukesha County, with the assistance of the Regional Planning Commission, assume responsibility for periodically reviewing and updating the adopted plan as new urban development occurs and travel patterns and tripmaking characteristics change, and as data on the effectiveness of implemented transit service changes become available. The plan updating will require the same close cooperation among local, county, and state agencies that was evident in the preparation of the transit plan itself. To achieve this necessary coordination, and therefore the timely implementation and updating of the plan, it is recommended that the Waukesha County Mass Transit Advisory Committee remain active and meet at the specific request of Waukesha County to address any problems which may develop in the implementation of plan recommendations.

SUMMARY

The recommended plan for the county fixed-route transit service calls for a number of changes in the routes currently subsidized by the County. Foremost among the proposed service changes would be the elimination of the most ineffective of the existing transit services, including all bus service provided west of the Goerke's Corners public transit station over the two existing Oconomowoc-to-Milwaukee bus routes, and all weekend and holiday bus service provided over the two existing Waukesha-to-Milwaukee bus routes. In addition, the recommended plan calls for modifying the existing weekday bus service provided between Waukesha and downtown Milwaukee by restructuring this service so that most of the bus runs are operated over freeway facilities to reduce travel times. To facilitate this service improvement, the plan calls for the replacement of the existing county bus service provided between Waukesha and the Brookfield Square Shopping Center over Blue Mound Road and Greenfield Avenue, and the existing City of Waukesha bus service operated between downtown Waukesha and the Goerke's Corners public transit station, with one bus service provided using a single route.

The proposed service changes would not all be implemented immediately, but rather would be staged over the planning period as conditions warranted. In addition, before the recommended single bus route between downtown Waukesha and the Brookfield Square Shopping Center could be put into effect, issues associated with the proposed elimination of duplicative county and city bus routes within the Blue Mound Road corridor would need to be resolved.

In preparing the plan recommendations, an analysis was undertaken of alternative operating agencies and institutions which could be used to oversee the operation of both the contract transit services provided by Waukesha County and the local transit services provided by the City of Waukesha. These alternatives included operation of all transit services in the County by Waukesha County; operation of all transit services in the County by the City of Waukesha; operation of all transit services in the County by a transit authority; and separate but coordinated operation of city and county transit services.

Based upon problems associated with the first three alternative strategies, it was recommended that both Waukesha County and the City of Waukesha continue the separate operation of their respective public transit programs, but coordinate those programs in the area of staff resources and with respect to the private firms contracted with to operate and/or manage the transit services. Under this strategy, it was recommended that the County contract with the City of Waukesha for the use of existing city staff to perform certain functions for the county transit program for which the existing county staff does not have the necessary expertise. If the City were to indicate to the County that it was not interested in coordinating staff resources, or would not be able to do so without adding additional personnel and increasing costs, the County could increase its staff capability by using the county staff involved in supervising the specialized transportation programs administered by the Waukesha County Department of Aging. As an alternative to these two actions, The County would request that the Regional Planning Commission provide the staff to perform the transit program activities.

In addition to coordinating staff resources, it was recommended that the City and County make an effort to coordinate the separate bid processes that are followed to award contracts for the operation and/or management of their

respective transit systems in order to explore the possibility of operation and management of the city and county transit systems by a common firm, which could result in increased efficiencies and lower costs for both operations.

The recommended plan also calls for the County to continue to provide specialized transit services which can effectively be used by handicapped persons. The County has proposed that a number of changes be made to its current handicapped transportation program to comply with federal regulations governing nondiscrimination on the basis of handicap in federally assisted public transportation programs. The proposed changes to its current handicapped transportation program were documented in a report which has been submitted to the federal Urban Mass Transportation Administration (UMTA) for approval. Should the County decide to eliminate the fixed-route bus services identified as candidates for elimination in its recommended transit plan, some of the proposed changes to its handicapped transit program would not be required. This could result in a reduction in the county funding requirement for its handicapped transportation program, and could improve the chances for continued operation of the specialized transportation services provided under the program by the Waukesha County Department of Aging.

With the staged implementation of the recommended service changes, transit service levels on the regular routes operated by the County--that is, those routes which the County currently operates and would continue to operate and manage under the recommended plan--would be expected to decline by about 24 percent between 1989 and 1992. Ridership levels on these county transit services would, however, be expected to decline by only about 15 percent during this period. In addition, transit service operating expenses and operating deficits would be expected to decline by about 11 percent over the period. The county funding requirement for these transit services would be about \$50,000 by 1992.

The County would also be responsible for providing a portion of the local funds required to operate the bus route between downtown Waukesha and the Brookfield Square Shopping Center, which is recommended to replace the existing county and city transit services operated within the Blue Mound Road corridor. Assuming operation of the route by the City of Waukesha transit system at the beginning of 1991, the county share of the incremental operating costs for modifying existing city bus routes would be about \$22,000 in 1992. However, based upon Waukesha County's experience with competitively awarding service contracts during 1988, county funding for operation of this route could be reduced if the County were to assume responsibility for its operation and to competitively bid the service contract for the route.

The above amounts of county funds assume that federal and state funds will continue to be drawn upon to reduce the County's financial commitment for the annual operation of the recommended transit system. It is recommended that federal transit formula assistance funds through the UMTA Section 9 formula block grant program continue to be sought to defray a portion of the annual operating deficit of the Waukesha County transit services. At the specific request of both the Waukesha County Highway and Transportation Committee and the City of Waukesha, alternative methods of dividing the total amount of federal transit formula assistance funds allocated each year to the transit operators within Waukesha County were reviewed. A total of 10 alternative methods were considered, including continuing to negotiate the division of the federal transit operating assistance funds available; applying a modified

national formula to distribute funds; distributing funds based upon specific characteristics of each transit operation, including measures of ridership, service provided, system efficiency, and local funding commitment; and distributing funds based upon a weighted allocation method based on service utilization and service provided. The analysis concluded that the most reasonable method for distributing federal transit operating assistance funds between the County and the City would be that proposed by the last alternative, which would base the division of funds on the most important measures of the actual need for transit service. Use of this method to distribute funds within the County would result in about the same proportionate share of available federal transit operating assistance funds as has been negotiated under the current method for the past two years.

An analysis was also conducted of the capacity of available funding sources to fund the recommended transit system over the five-year planning period. This analysis concluded that the projections made for the recommended transit system, including those for operating expenses, operating revenues, and operating deficits for the transit system, are reasonable based upon trends observed over the five-year period between 1983 and 1987. In addition, the amount of public funds that would be required over the planning period from the identified federal, state, and county funding sources appears to be within the funding capability of each public agency.

Waukesha County will bear most of the responsibility for implementation of the recommended transit plan. However, the City of Waukesha will also play a key role in plan implementation, as the recommended plan includes changes in existing city as well as county transit routes. It is also recommended that the City consider providing staff assistance to Waukesha County in transit program management in areas where it lacks the necessary staff expertise. Finally, the plan recommends increased efforts by the City to coordinate with the county bus services serving the City of Waukesha.

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Chapter IX

SUMMARY

INTRODUCTION

This report documents a transit plan for Waukesha County which is intended to update and revise the original transit plan prepared for the County by the Regional Planning Commission in 1980. This new plan was prepared by the Commission at the request of the Waukesha County Highway and Transportation Committee, and provides recommendations based upon a thorough evaluation of the performance of the existing transit system within the County; upon an analysis of the personal travel habits and patterns of the residents of the County and the transportation needs of the existing land use pattern; and upon a careful evaluation of alternative service options, with consideration given to the financial resources available to Waukesha County.

The principal findings and recommendations of the study are summarized in Table 81.

PURPOSE OF THE TRANSIT PLAN

The purpose of this transit plan was five-fold. First, the plan was to identify the types of transit services that should be provided within the County and the areas of the County to be served by each type of service, and the extent to which the County should fund such services. Second, the plan was to evaluate the effectiveness of the existing county-operated transit routes in serving the population, major trip generators, and travel patterns within the County. Third, the plan was to evaluate the financial performance of existing county-operated transit routes with respect to operating costs, passenger revenues, operating deficit, and proportion of operating costs recovered from passenger revenues. Fourth, the plan was to recommend potential changes to the existing county transit services with respect to operations, areas served, and funding. Fifth, the plan was to identify potential methods for distributing the annual apportionment of federal formula transit operating assistance funds between Waukesha County and the City of Waukesha.

STUDY ORGANIZATION

The preparation of the transit plan was a joint effort by the staffs of Waukesha County and the Southeastern Wisconsin Regional Planning Commission. Additional staff assistance was obtained as necessary from certain other agencies concerned with transit development in Waukesha County, including the Wisconsin Department of Transportation.

To provide guidance to the technical staffs in the preparation of this plan, and to more directly and actively involve concerned and affected public officials and citizen leaders in the development of transit service policies

Table 81

SUMMARY OF ADVISORY COMMITTEE FINDINGS AND RECOMMENDATIONS FOR WAUKESHA COUNTY TRANSIT PLAN: 1988-1992

I. PERFORMANCE EVALUATION OF EXISTING TRANSIT SERVICE—1987 ESTIMATED								
Characteristics/Measures	Total County Transit System	Freeway Flyer Bus Service Between Menomonee Falls and Downtown Milwaukee: Route No. 79	Local Bus Service Between Milwaukee County and Brookfield Square: Route No. 10	Express/Local Bus Service Between Oconomowoc and Milwaukee: Routes No. 3 and 4		Express/Local Bus Service Between Waukesha and Milwaukee Routes No. 1 and 2		
				West of Goerke's Corners Public Transit Station	East of Goerke's Corners Public Transit Station	Weekdays		Weekends and Holidays
						Selected Midday and Late Evening Runs ^a	All Other Runs	All Bus Runs
A. Service Characteristics								
1. Annual Revenue Vehicle Miles	341,800	46,700	32,200	29,700	26,600	22,000	160,300	24,300
2. Annual Operating Expense	\$994,500	\$143,300	\$148,300	\$91,400	\$81,900	\$48,000	\$427,800	\$53,800
3. Annual Operating Deficit	\$643,500	\$ 68,400	\$ 91,700	\$55,400	\$53,400	\$39,300	\$294,200	\$41,100
4. Annual Ridership	266,200	52,000	70,700	15,400	18,300	6,800	93,700	9,200
B. Service Effectiveness Measures								
1. Ridership per Vehicle Mile	0.78	1.11	2.20	0.51	0.69	0.31	0.58	0.38
2. Total Operating Expense per Passenger	\$3.74	\$2.76	\$2.10	\$5.94	\$4.48	\$7.06	\$4.57	\$5.84
3. Total Operating Deficit per Passenger	\$2.42	\$1.32	\$1.30	\$3.60	\$2.92	\$5.78	\$3.14	\$4.47

Conclusions

- Some existing bus services perform significantly above systemwide average effectiveness levels and should continue to be operated without change.
 - Freeway flyer bus service between Menomonee Falls and downtown Milwaukee (Route No. 79).
 - The extension of local bus service from Milwaukee County to the Brookfield Square Shopping Center over W. Blue Mound Road (Route No. 10).
- Some existing bus services perform just below systemwide average effectiveness levels and should be considered for service modifications.
 - Express bus service provided between the Goerke's Corners public transit station and downtown Milwaukee over Oconomowoc-to-Milwaukee bus routes (Routes No. 3 and 4).
 - All weekday peak-period and most weekday midday bus runs operated over Waukesha-to-Milwaukee bus routes (Routes No. 1 and 2).
- Some existing bus services perform well below systemwide average effectiveness levels and should be considered for elimination.
 - Express bus service provided west of the Goerke's Corners public transit station over Oconomowoc-to-Milwaukee bus routes (Routes No. 3 and 4).
 - Weekend and holiday bus service provided over Waukesha-to-Milwaukee bus routes (Routes No. 1 and 2).
 - Selected weekday midday and late evening bus runs operated over Waukesha-to-Milwaukee bus routes (Routes No. 1 and 2).

Table 81 (continued)

II. ANALYSIS OF CURRENT AND POTENTIAL SHORT-RANGE (FIVE-YEAR) TRANSIT TRAVEL MARKETS IN WAUKESHA COUNTY

Analysis of transit travel market in Waukesha County conducted with respect to three travel markets:

1. Rapid transit commuter travel market between Waukesha and Milwaukee Counties;
2. Internal local/express transit travel market within Waukesha County; and
3. Reverse commuter transit travel market between Milwaukee and Waukesha Counties.

Analysis of all three travel markets are based on:

- Population:
 - Location and density.
 - Characteristics including income, autos available, and vehicles per licensed driver.
 - Number of commuters to Milwaukee central business district.
- Land use:
 - Areas which are fully developed and which are developed at medium or greater density.
 - Type of land use.
- Employment:
 - Location and density.

Conclusions

- Rapid transit commuter service:
 - No expansion of rapid transit service to the Milwaukee central business district should be considered. The potential for effective rapid transit services is limited to the City of Waukesha, Village of Menomonee Falls, City of Brookfield, and City of New Berlin.
- Local/express transit service:
 - No expansion of local/express transit service to other parts of Waukesha County should be considered. Only the City of Waukesha and the Blue Mound Road corridor between the City of Waukesha and Milwaukee County can be expected to support effective local/express transit service. Local/express transit service within the Blue Mound Road corridor would be best provided as an extension of the services currently provided within the City of Waukesha and Milwaukee County.
- Reverse commuter transit service:
 - There does not appear to be any potential at this time for providing traditional fixed-route bus service solely to serve reverse commuter travel between Waukesha and Milwaukee Counties. The developing eastern portion of Waukesha County still has many undeveloped areas, with the density of most existing development within the County generally not sufficient to permit efficient and effective fixed-route transit services. Employment centers within the County are widely scattered, with no employment concentration approaching the amount and density of employment found in the Milwaukee central business district, which is the principal focus of the successful Waukesha County rapid and express bus services. Reverse commuter travel could best be served with nontraditional transit services such as carpooling, vanpooling, or subscription bus and van services.

III. EVALUATION OF TRANSIT SYSTEM SERVICE ALTERNATIVES: 1989-1992

Alternative 1: Continue to operate all service provided in 1988.

Description—Assuming no change from 1988 transit levels, county share of operating deficit in 1992 estimated to be between \$106,000 and \$152,000 (costs expressed as range to reflect two different short-range future scenarios principally with respect to motor fuel price).

Staff Recommendation—Reject alternative, as estimated county funding in 1992 would greatly exceed the projected 1992 county budget limit of \$45,000. In addition, alternative would retain without change services determined to be ineffective.

Alternative 3: County purchase of bus fleet for lease to private operators.

Description—County would use federal capital grant program to fund 80 percent of bus purchase. Buses purchased would then be leased to private transit operators to take advantage of federal grants available.

Staff Recommendation—Reject alternative. Beginning in 1988, 80 percent federal funding is also available annually to fund the depreciation and other capital-related expenses of privately owned bus fleets of private transit operators.

Table 81 (continued)

III. EVALUATION OF TRANSIT SYSTEM SERVICE ALTERNATIVES (continued)Alternative 4—Wisconsin Coach Lines, Inc., proposal to eliminate Route No. 10 between Milwaukee County and Brookfield Square (service operated by Milwaukee Transport Services, Inc.).

Description—Twenty-one weekday and 16 Saturday round trips currently operated over W. Blue Mound Road as extension of Milwaukee County Transit System Route No. 10, proposed to be replaced by five and one-half weekday and three Saturday round trips operated by Wisconsin Coach Lines, Inc. Service change estimated to result in a reduction in service levels of about 8 percent; a reduction in total operating expenses of about 12 percent; and a reduction in ridership of between 18 and 20 percent. Resultant county funding requirement of transit system by 1992 estimated to be between \$34,000 and \$83,000.

Staff Recommendation—Reject alternative. Service eliminated was identified in performance evaluation as performing well above system average effectiveness in terms of cost per rider and deficit per rider. Moreover, while proposed service change would reduce operating expenses by 12 percent, the percentage reduction in ridership would be over 50 percent greater, or 18 to 20 percent.

Alternative 2: Staff proposal to reduce service by:

1. Eliminating all bus service west of Goerke's Corners public transit station;
2. Eliminating all weekend and holiday bus service over Waukesha-to-Milwaukee bus routes;
3. Eliminating selected weekday bus runs during midday and evening periods on Waukesha-to-Milwaukee bus routes; and
4. Reducing peak-period bus service operated between Goerke's Corners public transit station and downtown Milwaukee.

Description—Services described under Nos. 1, 2, and 3 above were identified in performance evaluation as performing well below systemwide average effectiveness. Service described under No. 4 above included in alternative in order to reach projected budget limits. Service changes estimated to reduce service by about 25 percent; reduce total operating expenses by 19 to 20 percent; and reduce ridership by 12 to 13 percent. The county funding requirement by 1992 estimated to be between \$57,000 and \$89,000.

Staff Recommendation—Reject alternative, as county funding requirement would exceed projected 1992 budget limits.

Alternative 5: City of Waukesha proposal calling for:

1. Eliminating all bus service west of Goerke's Corners public transit station;
2. Eliminating all weekend and holiday bus service over Waukesha-to-Milwaukee bus routes;
3. Restructuring weekday bus service over Waukesha-to-Milwaukee bus routes to provide more direct nonstop service over IH 94 in both typical commuting and reverse commuting directions;
4. Replacing existing county bus service between downtown Waukesha and Brookfield Square Shopping Center and existing local city bus service between downtown Waukesha and Goerke's Corners with one bus service operated between downtown Waukesha and Brookfield Square; and
5. Operating joint county/city bus in Route No. 4 above, with reduced headways both within and outside City of Waukesha.

Description—Services described under Nos. 1 and 2 above were identified in performance evaluation as performing well below systemwide average effectiveness levels and warranting elimination. Services described under Nos. 3 and 4 were identified under performance evaluation as performing just below systemwide averages and warranting modification to improve performance. Service restructuring proposed under No. 3 would provide for faster transit service to serve typical commuter travel between City of Waukesha/Goerke's Corners and the Milwaukee central business district; and additional transit service (five one-way bus trips in both the morning and afternoon peak periods compared with three one-way bus trips in the morning and two one-way bus trips in the afternoon peak periods under existing service) to serve reverse commuter travel between Milwaukee County and City of Waukesha/Goerke's Corners.

By 1992, the service changes would reduce service levels on the county transit system by about 24 percent; reduce total system operating expenses by 25 percent; and reduce ridership by only between 3 and 6 percent. Service changes proposed for city transit system would increase city service levels by 18 percent; increase total system operating expenses by 10 percent; and increase ridership between 16 and 17 percent. The county funding requirement for its transit system estimated to be between \$5,000 and \$30,000 by 1992. The local funding requirement for the city transit system estimated to increase by \$36,000 to \$40,000 by 1992 over the funding that would be required to maintain the existing city transit system. Between \$22,000 and \$23,000 of this increase would be the City's share, and between \$13,000 and \$18,000 would need to be provided by other public sponsor such as Waukesha County.

Staff Recommendation—Recommended for implementation.

Table 81 (continued)

IV. FINAL ADVISORY COMMITTEE RECOMMENDATIONS INCLUDING PLAN STAGING

- For those county transit services that have been proposed for elimination as they have clearly been determined to be not effective in terms of ridership generated per cost of operation, including:
 - All bus service west of the Goerke's Corners public transit station provided over Oconomowoc-to-Milwaukee bus routes; and
 - All weekend and holiday bus service provided over Waukesha-to-Milwaukee bus routes

It is recommended that:

1. Waukesha County include these services in negotiations with the private operator during the last two years of the operator's three-year contract with the County.
 2. As long as existing transit services can be provided at no county subsidy, or for a county subsidy within the estimated county budget limits, the transit services proposed for elimination continue to be provided. (Estimates indicate that county budget limits would not be exceeded in 1989.)
- For the modifications to county and city transit services which have been proposed, including:
 - Restructuring weekday bus service over Waukesha-to-Milwaukee bus routes, including the replacement of the current county bus service between downtown Waukesha and Brookfield Square on Blue Mound Road and Greenfield Avenue, and the current city bus service between downtown Waukesha and Goerke's Corners, with one bus service between downtown Waukesha and Brookfield Square jointly funded by both the County and the City; and
 - Rerouting county bus service between Goerke's Corners and downtown Milwaukee to the freeway to reduce travel time

No service modifications may be implemented before:

1. Agreement is reached regarding whether the City or County should be responsible for providing the recommended revised service and how the service will be jointly funded.
2. All difficulties with respect to the transit operator/contractor who will provide transit service between the City and Brookfield Square are resolved.

Also, consideration should be given to the three-year contract which the County has with its current private operator.

It is therefore recommended that efforts by the County and City be made to reach agreement on, and resolve difficulties associated with, the recommended transit service changes within the Blue Mound Road corridor and, upon the reaching an agreement, implement the recommended service changes. In the interim, it is recommended that:

1. Actions be taken by both the City of Waukesha and Waukesha County to encourage the use of existing county bus routes serving the City of Waukesha. Such actions would include:
 - Showing county bus routes serving the City of Waukesha on the route map for the City's transit system;
 - Making available schedules and fare information for such county bus routes with the schedules for city bus routes;
 - Coordinating the stops and schedules for such county bus routes with the pulsed arrival and departure times of city bus routes at the City's downtown transfer terminal; and
 - Using a common paint scheme for county and city buses—in particular, for county bus service provided between the City of Waukesha and the Brookfield Square Shopping Center.
2. The results of the analysis conducted under the study of alternative operating agencies and institutions be considered by the County and the City. Alternatives to the existing situation, which were examined during the study, include:
 - a. Operation of all transit services in the County by Waukesha County.
 - b. Operation of all transit services in the County by City of Waukesha.
 - c. Operation of all transit services in the County by transit authority.
 - d. Separate but coordinated operation of city and county transit services, including staff, management, and operators.

The fourth alternative listed was ultimately recommended for implementation by the Advisory Committee.

^aIncludes three midday round trips between downtown Waukesha and the Brookfield Square Shopping Center over W. Greenfield Avenue or W. Blue Mound Road, and the last scheduled round trip between downtown Waukesha and downtown Milwaukee over W. Greenfield Avenue. The three midday round trips between downtown Waukesha and the Brookfield Square Shopping Center were replaced with one round trip between downtown Waukesha and downtown Milwaukee as part of schedule changes made by the private operator in February 1988.

Source: SEWRPC.

and improvement proposals, Waukesha County created the Waukesha County Mass Transit Advisory Committee. The full membership of this Committee is listed on the inside front cover of this report.

EXISTING TRANSIT SYSTEM

As of January 1987, the Waukesha County transit system consisted of six bus routes which provided primarily commuter-oriented service between the City of Milwaukee central business district and the various portions of Waukesha County. Waukesha County contracted with Wisconsin Coach Lines, Inc., and Milwaukee County for the day-to-day operation, management, and support of these services. Two Milwaukee-Waukesha bus routes and two Milwaukee-Oconomowoc bus routes are operated by a private transit operator--Wisconsin Coach Lines, Inc. A Milwaukee-Menomonee Falls freeway flyer route and a Milwaukee-Brookfield Square Shopping Center local bus route are operated by the private management firm for the Milwaukee County Transit System--Milwaukee Transport Services, Inc. These six routes totaled approximately 145 round-trip route miles. Most of the service on these routes was provided during weekday peak travel periods.

History

Waukesha County first became directly involved in the provision of public transit service in June 1975, when it contributed toward the cost of providing some Milwaukee-Waukesha service under a one-and-one-half-year demonstration project aimed at improving transit service in this travel corridor. Following completion of the demonstration project at the end of 1976, Waukesha County elected to continue subsidizing commuter bus service between Waukesha and Milwaukee Counties with the aid of federal and state transit operating assistance funds. In 1981--as a result of the Arab oil embargo and resulting shortages of, and increases in the cost of, motor fuel--transit service was expanded to seven new bus routes between various locations in Waukesha County and the Milwaukee central business district. Some of these new lines were subsequently abandoned because of low ridership.

Ridership and Financial Performance

Annual ridership on the Waukesha County transit system increased from 183,000 revenue passengers in 1977 to a high of 360,000 revenue passengers in 1982. In 1987, annual ridership on these routes was 266,200 revenue passengers. Operating expenses for the system increased from about \$274,000, or \$1.50 per passenger, in 1977, to about \$995,000, or \$3.74 per passenger, in 1987. The operating deficit increased from about \$98,000, or \$0.53 per passenger, in 1977, to about \$644,000, or \$2.42 per passenger, in 1987. The County's share of this deficit has fluctuated from nothing to about \$0.60 per passenger, with the 1987 county share estimated at \$0.17 per passenger, or about 7 percent of the total deficit. Operating revenue for the transit system represented about 35 percent of total operating expenses in 1987, compared to about 64 percent in 1977.

Management and Administration

The Waukesha County Board of Supervisors has the ultimate responsibility for establishment of policy governing the operation of the county transit system, including the annual budget and annual program. The policy decisions concerning the services are made by the Waukesha County Highway and Transportation Committee; and the responsibility for administering the contract agreements between the County and the two transit operators rests with the Waukesha County Transportation Department. Because the day-to-day management and operation of these services are provided by the two transit operators, Waukesha County owns no operating equipment or facilities with the exception of three bus shelters located at three county-owned park-ride lots.

Other Public Transit Services

There are other public transit services provided within Waukesha County which are coordinated with the services provided by the Waukesha County transit system to varying degrees. Long-distance intercity bus service is provided by three different carriers, with buses having stops within Waukesha County being operated between Milwaukee and Madison, Rockford, Minneapolis-St. Paul, and Wausau. Within the City of Waukesha and immediate environs, local urban public transit service is provided by Waukesha Metro Transit--the city transit system--operating over eight fixed routes totaling approximately 106 route miles in 1987. Taxicab service is also available in and around the Cities of Waukesha and Oconomowoc. Also, several specialized transportation services, intended to serve the needs of elderly or handicapped individuals, are operated by or coordinated through the Waukesha County Department of Aging. In general, these specialized services do not utilize fixed routes or regular schedules, providing service on demand within Waukesha County.

LAND USE, SOCIOECONOMIC, AND TRAVEL CHARACTERISTICS OF THE COUNTY

Land Use

The pattern of historic urban growth in Waukesha County has resulted in a discontinuous and highly diffused land use pattern in the western portion of the County, with few major concentrations of complete urban development. The only sizeable areas in the County which are now fully developed for urban use, and which therefore may have the potential to support efficient local transit service, are the City of Waukesha and perhaps the northeastern portion of the City of New Berlin, the east-central portion of the City of Brookfield, and the north-central portion of the Village of Menomonee Falls. Local transit service generally can be efficiently provided only in areas of medium- to high-density urban land use. Such densities were found to exist only in the City of Waukesha and in the Blue Mound Road (USH 18) corridor generally west of Moorland Road in the City of Brookfield.

Population

The resident population of Waukesha County increased rapidly from 1950 to 1980, with more moderate growth from 1980 to 1985. The estimated 1985 resident

population of the County was 286,000 persons. The number of households in Waukesha County also increased rapidly in the period from 1950 to 1980, again with more moderate growth from 1980 to 1985.

An important population characteristic with respect to the need for public transit service is income, with generally greater use of public transit by persons from families with lower incomes. This, however, is not necessarily true of express or rapid transit service focused on an area like the central business district of Milwaukee and serving trips made primarily for work purposes. Over the period 1950 to 1980 in both actual and constant dollars, the median family income in Waukesha County increased rapidly, with the exception of the period between 1970 and 1980, when only modest increases in family income were exhibited. The median family income in Waukesha County in 1980 was estimated to be \$27,648. The median family income levels of most municipalities within the County were determined not to vary widely from the county median and to be within 15 percent of that median.

Another important population characteristic with respect to transit ridership is the number of vehicles available per household for travel, as households with no vehicles available may be expected to rely solely on public transit to meet their travel needs. In 1980, an estimated 3,150 households in the County, or approximately 4 percent of all households in the County, had no vehicles available for travel. About 1,350 of those households, or about 43 percent, were located in the City of Waukesha, with no other community in the County having a concentration of such households approaching that level. Thus, the greatest existing need for public transit in Waukesha County would appear to be in the City of Waukesha.

Employment

Employment also increased rapidly in Waukesha County from 1963 to 1980, with more modest increases from 1980 to 1985. The latter change in growth was primarily the result of the nationwide recession which began in 1979, and from which recovery began in 1984. The estimated 1986 level of employment in Waukesha County was 124,800 jobs. Review of the existing density of employment in Waukesha County indicated that no commercial or industrial area in the County approached the density or extent of employment of the Milwaukee central business district or certain other areas of the central city. The major concentrations of employment in Waukesha County in 1980 were the City of Waukesha, the New Berlin industrial park, and the Blue Mound Road (USH 18) corridor, and along STH 100 between W. Burleigh Road and W. Silver Spring Road (CTH VV). Moreover, these employment centers were located in areas that were not yet fully developed for urban use.

Travel Habits and Patterns

An important characteristic of the travel patterns of the residents of Waukesha County is the number of county residents who regularly travel to the Milwaukee central business district for work purposes. Much of the existing Waukesha County transit service is focused on serving peak-period travel from subareas of Waukesha County to the Milwaukee central business district. In 1980, an estimated 5,000 Waukesha County residents regularly worked in the

Milwaukee central business district. Municipalities in the County with the greatest number of residents that worked in the Milwaukee central business district were the City of Brookfield, approximately 1,012 residents; the City of Waukesha, 832 residents; and the City of New Berlin, 729 residents.

An on-board bus survey was conducted on the Waukesha County transit system by the Southeastern Wisconsin Regional Planning Commission in October 1984 to define the socioeconomic and travel characteristics of the users of the Waukesha County transit system. This survey was conducted along with user surveys for the other four transit systems in the Region, and along with household, truck, and external travel surveys for the Region to update the Commission travel survey data. The findings of this survey compare favorably with the findings of a survey conducted by Wisconsin Coach Lines, Inc., in October 1986 on the lines that it operates for Waukesha County. The Commission survey indicated that approximately 70 percent of the Waukesha County transit system ridership was female; approximately 85 percent of the ridership was between the ages of 25 and 54; the median income of transit riders was between \$25,000 and \$29,999, or about the same as the median household income of all households in Waukesha County; and about 10 percent of the county transit system riders were members of households with no vehicle available. The principal purpose of travel on the Waukesha County transit system was work-related, with approximately 42 percent of all trips involving travel to and from work.

Conclusions Regarding Land Use, Socioeconomic, and Travel Characteristics

A number of conclusions were drawn concerning the potential for efficient local transit services and for efficient express and rapid transit services in Waukesha County. These conclusions were based upon the information assembled on the current pattern and density of land use in Waukesha County; the existing level, characteristics, and density of population and employment in Waukesha County; the amount and pattern of travel generated by the resident households and other land use activity in the County; the amount of work travel by Waukesha County residents to the Milwaukee central business district; and information on current county transit system users.

No strong potential for new local transit service appears to exist outside the City of Waukesha based upon consideration of the extent of urban development in the County; the density of that development and of population and employment in the County; and the characteristics of the population of the County, including income and auto availability. Similarly, no strong potential for extending additional Milwaukee County Transit System fixed routes into Waukesha County appears to exist at this time.

Very limited potential would appear to exist for expanded express and rapid transit service within the County, based upon the extent and density of development within the County; the characteristics of the population within the County; and the travel characteristics of residents of the County, including the number of residents of each municipality who work in the Milwaukee central business district.

Another type of transit service expansion which may be considered is "reverse" transit service, which would bring workers from Milwaukee County to jobs in Waukesha County, and could, as well, carry residents of Milwaukee County to Waukesha County for purposes such as shopping. There does not appear to be a significant potential for such reverse service--as traditional fixed-route transit service--at this time. The developing eastern portion of the County still has many areas that are undeveloped. In addition, the density of most development within Waukesha County generally does not permit efficient local transit service, whether that service is internal to the County or is "reverse" service. It is important to note in this respect that while portions of Waukesha County are developing very rapidly as employment centers, the density of the resultant employment in such centers is much lower than the density of employment in such areas in Milwaukee County. In addition, the employment centers themselves in Waukesha County are very widely scattered. There is no center of employment in Waukesha County which approaches the amount and density of employment in the Milwaukee central business district, which is the principal focus of the Waukesha County transit system rapid and express transit service.

It is important to note that traditional fixed-route transit service was determined to not be an effective solution to the current reverse commute travel needs between Milwaukee and Waukesha Counties. The State has created a special program--known as the "Job Ride" program--to address this issue. The Job Ride program is directed at finding solutions to the reverse commute travel needs of residents of the Milwaukee central city which cannot be served with traditional fixed-route transit service. It is envisioned that van or possibly subscription bus services will be the principal method employed under this program to provide transit service linking central city residents with job opportunities in outlying communities, including those within Waukesha County. The service would operate between employees' homes or a pick-up point to a single employer or a selected number of employers. It is possible that the demand for transit service under this program may ultimately reach levels within specific corridors that could support traditional fixed-route transit service.

EXISTING TRANSIT LEGISLATION AND REGULATIONS

Federal Legislation

The federal government is a major source of financial assistance for public transit services through three major programs relevant to Waukesha County. The U. S. Department of Transportation, Urban Mass Transportation Administration (UMTA), administers these programs, which were made available under the Urban Mass Transportation Act of 1964, as amended. Financial assistance for urban public transit systems like that operated by Waukesha County is currently available under Section 3, primarily for capital purchase projects and rapid transit system construction costs; under Section 8 for planning assistance; and under Section 9 on a formula grant basis to designated recipients within urbanized areas for use toward operating assistance, capital equipment purchases, or planning projects.

Within the Milwaukee urbanized area, the Counties of Milwaukee, Waukesha, Ozaukee, and Washington have been designated as recipients of Section 9 formula funds. The Section 9 funds allocated annually to the urbanized area are distributed among the designated recipients having subsidized transit services within their jurisdictions, using a procedure mutually agreed upon by the three transit operators within the urbanized area. Section 9 funds available for planning projects or capital assistance projects are distributed on the basis of the need for such funds by each transit operator as reflected in a program of projects jointly developed by the three transit operators. Section 9 funds available for transit operating assistance are distributed using a process which applies within the urbanized area the national formula used to distribute funds among the urbanized areas nationwide. The transit operating assistance funds allocated to Waukesha County in this manner are currently, and have also been in years past, divided between Waukesha County--which is a designated recipient of such funds--and the City of Waukesha--which is not a designated recipient but owns and operates its own local bus system--based upon an agreement which is annually negotiated between the County and the City. The negotiation of such an agreement is consistent with how such matters were envisioned to be settled when each of the four counties was originally designated as a recipient of UMTA formula transit assistance funds in 1975.

Two other transit assistance programs were also authorized under the Urban Mass Transportation Act of 1964, as amended, and are also administered by UMTA. Section 16 provides financial assistance for the purchase of vehicles and equipment to private nonprofit agencies or corporations that provide specialized transportation to elderly and handicapped individuals. Section 18 provides financial assistance to nonurbanized areas on a formula grant basis.

State Legislation

The Wisconsin Statutes provide several programs for financing public transportation services. The Wisconsin Department of Transportation administers these programs, which provide financial assistance for both general and specialized transportation, including: an urban transit operating assistance program authorized under Section 85.20 of the Wisconsin Statutes, which provides operating assistance to communities with populations of more than 2,500 persons supporting general public transit systems; a specialized transportation assistance program authorized under Section 85.21 of the Wisconsin Statutes, which provides financial assistance to counties for elderly and handicapped transportation projects; and a specialized transit assistance program authorized under Section 85.22 of the Wisconsin Statutes which, together with funds available under the UMTA Section 16(b)(2) program, provides capital assistance to private nonprofit organizations providing specialized transportation services.

The Wisconsin Statutes also provide several organizational alternatives to counties for the operation of public transit services. These alternatives include: county contract for services with a private operator, county ownership and operation of an existing or new county department, and county ownership and operation by a single county or joint county transit commission. In

addition, the Wisconsin Statutes provide for the creation of certain special public transit districts and authorities.

TRANSIT SERVICE OBJECTIVES AND STANDARDS

A set of transit service objectives was developed to provide criteria against which the performance of the existing transit system may be assessed, alternative service options and plans designed and evaluated, and recommendations for improvement made. Complementing each of the objectives is a planning principle and a set of service and design standards. Each set of standards is directly related to an objective and serves to facilitate quantitative application of the objectives in the evaluation of the performance of the existing transit system; to provide guidelines for the consideration of new or improved services; and to provide warrants for capital projects.

The following four objectives were adopted by the Waukesha County Mass Transit Advisory Committee for use in this study:

1. Public transit should serve those areas of the County which can be efficiently served, including those areas of urban development which are fully developed to medium or high densities and, particularly, the transit-dependent population within those areas.
2. The public transit system should promote transit utilization and provide for user convenience, comfort, and safety.
3. The public transit system should promote efficiency in the total transportation system.
4. The transit system should be economical and efficient, meeting all other objectives at the lowest possible cost.

In addition, an overall policy statement containing the ideas inherent in each of the four objectives was set forth by the study Advisory Committee and was as follows: Public transit should be provided in Waukesha County to those areas of urban development which are fully developed to medium and high population and employment densities if such services can be provided economically and efficiently, and promote efficiency in the total transportation system.

TRANSIT SYSTEM PERFORMANCE EVALUATION

A performance evaluation of the Waukesha County transit system was conducted at two levels, using specific sets of performance measures to measure the attainment of key transit system objectives and standards.

At the first level, an assessment of performance was made on a systemwide basis. This assessment examined the extent to which the transit system serves the population and major land uses within Waukesha County. The second part of this assessment evaluated the performance of each route in the transit system

based upon its ridership, productivity, and financial performance. Further analysis of each route was then conducted to identify productive and nonproductive route segments. The following conclusions may be drawn from the performance evaluation:

- The existing routes of the Waukesha County transit system provide local, express, and freeway flyer transit service to all concentrations of urban development within the County which have the potential to support such service. Consequently, no new service should be considered at this time in areas not served by the existing transit system.
- Some changes may, however, be warranted in the types of transit service presently being provided. Such changes could include the provision of additional rapid transit, freeway flyer bus service between downtown Milwaukee and the Goerke's Corners public transit station, which serves portions of both the Cities of Waukesha and Brookfield. Another change that could be considered is the provision of local rather than express bus service in the W. Blue Mound Road corridor to connect this area with the City of Waukesha.
- The existing transit system may be considered to be adequately serving the population, job, and major commercial and industrial concentrations in the County where the need for, or the potential support for, public transit service has been found to be the greatest. Population, job, and major commercial and industrial concentrations not presently served generally are in areas of the County which do not warrant transit service, or are located in areas where transit service has been proven to be infeasible in the past or which could be reached by passengers on the county transit services by transferring to the local bus system operating within the City of Waukesha.
- The Waukesha County transit system may be concluded to be energy-efficient, serving 2.5 times the passenger miles of travel that can be served using private automobiles for each gallon of petroleum-based fuel used. On an average weekday, this results in a savings of about 466 gallons of motor fuel. In addition, the transit system reduces the need for additional costly freeway improvements within the Milwaukee urbanized area, particularly on the East-West Freeway (IH 94) corridor between the Zoo Interchange and downtown Milwaukee, as it removes about 235 vehicles from peak-hour, peak-direction traffic--the equivalent of about 20 percent of the design capacity of a freeway lane.
- Route No. 10--the local route extension operating between Milwaukee County and the Brookfield Square Shopping Center--and Route No. 79--the Menomonee Falls freeway flyer--were found to be successful in attracting high levels of ridership and performing at average or better than average levels of productivity and cost-effectiveness compared to the remainder of the Waukesha County transit system.
- Route No. 1--Waukesha to Milwaukee via Greenfield Avenue (STH 59)--and Route No. 2--Waukesha to Milwaukee via Blue Mound Road (STH 18)--were found to attract high levels of ridership during weekday peak periods,

but on an overall basis were found to have lower than average productivity and financial performance compared to the remainder of the Waukesha County transit system because these two routes also operate during midday and evening off-peak periods as well as on weekends, with low passenger loads.

- Route No. 3--Oconomowoc to Milwaukee via STH 16--and Route No. 4--Oconomowoc to Milwaukee via IH 94--were both found to attract low levels of ridership over much of their routes. While Route No. 3 performed well in some measures of financial performance, Route No. 4 performed at or below average in all performance measures.
- Overall, the ridership, productivity, and financial performance of the Waukesha County transit system on weekends are significantly below weekday levels, with the exception of Route No. 10, which performs relatively well on Saturdays. The ridership, productivity, and financial performance of the Sunday service provided by the transit system drops off markedly from weekday and even Saturday service levels.
- The route segment analysis identified specific components of the Waukesha County transit system with high and low passenger activity. In particular, Routes No. 3 and 4--which provide weekday peak-period service to Oconomowoc--are made up of a large number of route segments west of the Goerke's Corners public transit station with very little passenger activity.

The analyses documented in this chapter indicated that two of the bus routes operated as part of the Waukesha County transit system--Route No. 10, the Brookfield Square local route extension, and Route No. 79, the Menomonee Falls freeway flyer--performed well and could continue to be operated with no route or schedule changes. However, for the remaining four routes, consolidation of some service was recommended to improve the ridership, performance, and cost-effectiveness of the total system. The systemwide and route performance evaluations were intended to provide a sound basis for the consideration of such potential changes.

ALTERNATIVE AND RECOMMENDED TRANSIT SERVICE OPTIONS

Two sets of alternative transit service options were considered for the Waukesha County transit system, the first set being for the 1988 transit system operating budget and the second set for the period 1989 through 1992. The alternative transit service options considered were based upon a review of the existing land use patterns within the County and of the socioeconomic characteristics and travel patterns of the county residents, as well as on the results of a route-by-route evaluation of the existing transit system performance.

A review of the extent and density of urban development within the County, the density of the existing population and employment within the County, and the household income and automobile availability of the county population indi-

cated that no expansion of traditional fixed-route transit service was warranted under present conditions within the County. However, the route-by-route performance evaluation indicated that for some of the routes, the potential existed for operational changes which could enhance the level of service provided by the system, as well as improve the overall effectiveness and efficiency of the transit system. Accordingly, the focus of the alternative transit service considered was on the routes currently operated as part of the Waukesha County transit system, rather than on expanding county transit service into areas presently unserved.

Also influencing the nature of the alternative transit service options considered were the constraints placed upon the transit system operating budget for calendar year 1988 by the Waukesha County Board of Supervisors. These constraints specified that the local tax levy required to provide county transit services in 1988 should be no more than 2 percent above the \$40,400 local tax levy required to provide such services in 1987. To comply with the County Board's 1988 budget directive, the Waukesha County Highway and Transportation Committee was required to hold the local tax levy for the county transit system during 1988 to a maximum of \$41,200. In addition, members of the Highway and Transportation Committee indicated that, to the extent practicable, it would be desirable to ultimately plan for the elimination of the county tax levy for the transit system.

Alternative Transit Service and Fare Changes for 1988

The first set of alternative transit service options considered was for the County's 1988 transit system operating budget. The first alternative considered was a "status quo," or do nothing, alternative under which the routes, service levels, and fares on the transit system during 1988 would remain unchanged from those that existed during 1987. Two sets of projections for this alternative were considered, with the first set representing the preliminary 1988 operating budget for the transit system as prepared by Waukesha County staff. The preliminary operating budget prepared by county staff would have required a county tax levy of \$73,500 to support the transit system in 1988. However, the preliminary transit system operating budget assumed an increase in operating revenue of about \$17,000, or 5 percent over the total operating revenues estimated for 1987. Because actual levels of ridership and operating revenues had been declining on the transit system for the past several years, a second set of projections was prepared by the Regional Planning Commission staff. Under this second set of projections--which was based on an assumed continuation of past trends of declining transit ridership and passenger revenues--the county share of the transit system operating deficit for 1988 was estimated to total \$120,000. Because the county tax levy for the transit system under both sets of projections would exceed the limit set by the Waukesha County Board for calendar year 1988, other alternative service options were considered to reduce the county tax levy by between \$32,000 and \$79,000.

Three sets of transit service changes were examined for the 1988 operating budget: 1) service reductions on the two bus routes operating between the City of Oconomowoc and downtown Milwaukee during 1987; 2) service reductions on the two bus routes operating between the City of Waukesha and downtown

Milwaukee; and 3) increases in the passenger fares currently charged on the transit system. Based upon the conclusions of the evaluation of route performance presented in the previous chapter, no service modifications were initially proposed for Route No. 10, the Brookfield Square local route extension, or Route No. 79, the Menomonee Falls freeway flyer.

It should be noted that the Commission indicated to county officials that changes in county procedures in applying for federal and state transit assistance, and in procuring transit services, could result in additional federal and state transit assistance funds and in lower total operating costs and deficits, which could be an alternative to service reductions and/or fare increases in 1988. These changes included adding to its application for state transit operating assistance expenses which are currently incurred by the staff of the Waukesha County Highway Department in completing various transit program work activities, and expenses incurred in providing specialized transportation assistance for handicapped persons as part of the County's regular public transportation program. In addition, it was suggested that Waukesha County could competitively procure public transit services instead of annually re-negotiating service contracts with the two existing private contract operators. This action would have enabled the County to potentially lower total costs and deficits, and also to qualify the county transit system for additional federal and state transit assistance funds to cover expenses charged by private transit operators for depreciation of capital equipment and profit. While the potential benefits of these transit program changes were discussed with the Waukesha County staff and the Waukesha County Highway and Transportation Committee, county officials expressed concern that there would not be adequate time among the existing county staff to handle the additional work involved in implementing the changes. The Commission staff, therefore, was directed to evaluate alternative transit service changes for the 1988 transit system operating budget.

Proposed 1988 Service Changes for Oconomowoc-to-Milwaukee Bus Routes: Three service options were considered for the Oconomowoc-to-Milwaukee bus routes which would reduce or eliminate the transit service being provided west of the Goerke's Corners public transit station during 1987. These options were:

- Reduce Oconomowoc-to-Milwaukee bus service by eliminating one morning inbound run and one afternoon outbound run west of the Goerke's Corners public transit station, thereby reducing the projected 1988 total annual operating deficit for the transit system by about \$35,000, or by 4 to 5 percent, and the local share of the total operating deficit by about \$19,000, or by 16 to 26 percent.
- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and continue the 1987 level of service between Goerke's Corners and downtown Milwaukee, thereby reducing the projected 1988 total transit system operating deficit by about \$54,000, or by 7 to 8 percent, and the local share of the operating deficit by about \$22,000, or by 18 to 30 percent.
- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and one of three round-trip weekday bus

runs between Goerke's Corners and downtown Milwaukee, thereby reducing projected 1988 total operating deficits for the transit system by about \$89,000, or by 13 to 14 percent, and the local share of the operating deficit by about \$43,000, or by 35 to 57 percent.

Proposed 1988 Service Changes for Waukesha-to-Milwaukee Bus Routes: Five service options were considered for the Waukesha-to-Milwaukee bus routes which would reduce the transit service being provided during weekends and midday off-peak periods of operation during 1987. These options included:

- Eliminate all Sunday and holiday bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$18,000, or by 2 to 3 percent, and the local share of the total operating deficit by about \$9,000, or by 8 to 12 percent.
- Eliminate all Saturday, Sunday, and holiday bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$42,000, or by 6 to 7 percent, and the local share of the operating deficit by about \$22,000, or by 18 to 57 percent.
- Eliminate some weekday midday service and late evening service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$40,000, or by about 6 percent, and the local share of the annual operating deficit by about \$22,000, or by about 18 to 30 percent.
- Eliminate most weekday midday and late evening service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$104,000, or between 15 and 16 percent, and the local share of the operating deficit by about \$55,000, or between 46 and 75 percent.
- Eliminate all weekday midday and late evening bus service on the Waukesha-to-Milwaukee bus routes, thereby reducing the projected 1988 total operating deficit for the transit system by about \$138,000, or between 20 and 22 percent, and the local share of the total operating deficit by about \$69,000, or between 58 and 94 percent.

Proposed 1988 Fare Changes: With respect to increasing passenger fares to generate additional operating revenues and reduce the level of county funding required for the transit system, the following two changes were considered:

- Increase fares by 5 percent systemwide on all six bus routes, thereby generating between \$5,400 and \$6,300 in additional operating revenues which could be directly applied to reduce the county share of the projected 1988 transit system operating deficit.
- Increase fares by 10 percent systemwide on all six bus routes, thereby generating between \$12,000 and \$14,000 in additional passenger revenues

which could be directly applied to reduce the county share of the projected 1988 transit system operating deficit.

Preliminary Staff Recommendations: Based upon the projected impacts of the three sets of alternative service changes proposed for the 1988 operating budget, and the reluctance of Waukesha County staff and officials to consider other changes to the transit program which could increase levels of federal and state transit assistance funds available to Waukesha County, the Commission staff recommended the following alternative service changes to the Waukesha County Mass Transit Advisory Committee in order to reduce the county tax levy for the transit system to the 1988 budget limit of \$41,200.

- Eliminate all Oconomowoc-to-Milwaukee bus service west of the Goerke's Corners public transit station and reduce bus service between the Goerke's Corners public transit station and downtown Milwaukee on Routes No. 3--Oconomowoc to Milwaukee via STH 16--and No. 4--Oconomowoc to Milwaukee via IH 94.
- Eliminate weekend and holiday bus service between Waukesha and Milwaukee on Route No. 1--Waukesha to Milwaukee via Greenfield Avenue--and Route No. 2--Waukesha to Milwaukee via Blue Mound Road.
- Reduce weekday midday service between the City of Waukesha and the Brookfield Square Shopping Center on Route No. 2.
- Eliminate weekday late evening bus service between Waukesha and Milwaukee on Route No. 1.

With these proposed service changes, ridership on the transit system during 1988 was projected to be about 33,000 revenue passengers, or 14 percent, less than the projected ridership for the transit system with no service changes. It was estimated that the service changes would also reduce the total operating deficit for the transit system during 1988 by \$114,000, or about 18 percent, and the local share of the operating deficit by about \$86,000, or about 72 percent. This would result in a local operating deficit of about \$34,000 for the transit system, or about \$7,000, or 18 percent, below the county funding limit of \$41,200 established by County Board action.

Reaction of Advisory Committee to Preliminary Staff Recommendations: At a meeting of the Waukesha County Mass Transit Advisory Committee on August 24, 1987, Committee members expressed concern that the service changes recommended by Commission staff to permit attainment of the county transit system budget limit for 1988 would require a significant reduction in transit service--from 430,000 total vehicle miles of service in 1987 to 327,000 in 1988, or a reduction of about 25 percent. Some Committee members also expressed concern that the proposed service reductions would not be compatible with the need for transit service which may be expected under inevitably higher motor fuel prices.

To address these concerns, four additional alternatives for the Waukesha County transit system were proposed by the Advisory Committee. Of these four new options, two were concluded to be both feasible and appropriate for

implementation in 1988. One of the feasible options was suggested earlier by Commission staff and proposed that, rather than reducing or modifying service, the County consider competitive procurement of transit services instead of re-negotiation with existing transit operators. The other option considered feasible proposed that Routes No. 1 and 2 be modified to replace the bus service provided within Waukesha County over the extension of Route No. 10 between the Brookfield Square Shopping Center and downtown Milwaukee.

The remaining two new service options were concluded by the Advisory Committee to be inappropriate or not feasible for implementation in 1988. These two options proposed the purchase of a fleet of buses by Waukesha County for lease back to a private transit operator for use in providing transit service over contracted bus routes, and modifying the weekday bus service operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district to provide more high-speed, nonstop, rapid transit service, while eliminating weekend and holiday bus service over these routes, plus eliminating Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4.

Evaluation of Additional Service Options Proposed for 1988 Transit System Budget:

One additional service option for 1988 was proposed by the private transit operator currently under contract with Waukesha County for the operation of Routes No. 1, 2, 3, and 4. Under this option, Waukesha County would no longer contract for the extension of Route No. 10 from the Waukesha-Milwaukee County line to the Brookfield Square Shopping Center and the Executive Drive office park area. Instead, modifications would be made to Routes No. 1 and 2 as operated by the private transit company in order to replace the 21 weekday and 16 Saturday round trips operated over Route No. 10 in Waukesha County with five and one-half weekday and four Saturday round trips operated over an extension of Route No. 2 which would essentially duplicate the routing of Route No. 10 in Waukesha and Milwaukee Counties in effect in 1987. To provide the replacement service for Route No. 10 on Route No. 2, bus runs operated during 1987 on Route No. 1 over IH 94 and W. Greenfield Avenue between downtown Milwaukee and the Brookfield Square Shopping Center would be shifted to operate instead over E. and W. Wells Street, E. and W. Wisconsin Avenue, and W. Blue Mound Road between those points.

To determine the potential impacts of this service proposal on the transit system passengers using the Waukesha County segment of Route No. 10, Commission staff conducted a special on-board bus survey of Route No. 10 passengers on September 3, 1987. This survey gathered information on the passenger's origin or destination in Milwaukee County, whether the passenger trip involved a transfer to or from another bus route, the passenger's trip purpose, and the passenger's county of residence. Based upon the trip characteristics of the passengers, and the projected operating characteristics of the bus service proposed by the private operator to replace the service provided over Route No. 10, it was estimated that this service proposal would result in a net loss in ridership on the transit system in 1988 of 53,000 revenue passengers, or 22 percent, and a reduction in operating revenues of about \$44,000, or about 14 percent, from levels projected for 1988 under the status quo alternative. Under this option, system operating expenses would be reduced by about \$192,000, or 19 percent, in comparison to the expenses projected under the status quo alternative. The total operating deficit for

the transit system would be reduced by about \$148,000, or about 21 percent; and the local share of the operating deficit would be reduced by about \$76,000, or about 64 percent. The resulting county funding requirement of approximately \$43,800 under this option would be about \$2,600 over the budget limit established for the transit system of approximately \$41,200.

Under the second additional service option for the 1988 budget, it was proposed that Waukesha County award service contracts for transit routes through a process which involves competitive bidding by potential contractors. By awarding transit service contracts to private transit operators through such a process, Waukesha County could lower total operating costs and deficits and, as well, be eligible to apply for federal capital assistance under the new capital-cost-of-contracting policy established by the federal Urban Mass Transportation Administration. Such funds could be used to cover 80 percent of the depreciation and capital overhead expenses charged by the private operator in providing the contract service. Competitively awarding service contracts would also enable Waukesha County to receive state transit operating assistance to cover 37.5 percent of the depreciation and profit charged by the private operator under the contract. The additional federal and state funds would reduce the county funds needed to subsidize the operation of the transit system in 1988 possibly down to or below the 1988 budget limit, thereby precluding the need to make any reduction in transit services.

Depending upon how many service contracts would be awarded to private transit operators, it was estimated that Waukesha County could receive between \$56,000 and \$70,400 in UMTA Section 9 capital assistance funds, plus between \$49,200 and \$61,800 in additional state transit operating assistance funds if it were to competitively award service contracts for Routes No. 1, 2, 3, 4, and 79. With these additional federal and state funds, the county funds required to subsidize the operation of the transit system during 1988 would range from about \$14,700 to about \$8,800, which would be substantially below the 1988 budget limits placed upon the transit system by the Waukesha County Board.

Reaction of Waukesha County Highway and Transportation Committee to Additional Service Options: Based upon the potential impacts on the 1988 transit system operating budget of the two additional service options proposed by the Advisory Committee, the Waukesha County Highway and Transportation Committee determined that, for 1988, it should continue to contract for the operation of Route No. 10 from the Milwaukee County Transit System and pursue the competitive procurement of transit service contracts for the remaining five county routes. The Committee also decided that, based upon the findings of the Commission staff concerning the effectiveness and efficiency of the bus service provided during 1987, one round trip between the City of Oconomowoc and the Goerke's Corners public transit station should be eliminated over Route No. 3.

Following this decision, the Waukesha County Highway Department, with the assistance of the Regional Planning Commission staff, prepared and distributed a formal, request for proposal (RFP) document to solicit competitive bids for the operation of the Waukesha County transit service over Routes No. 1 through 4 and 79. A total of five service proposals were submitted by public and

private transit operators to Waukesha County in response to its RFP document. After two of the five proposals submitted were rejected because they omitted required material, the remaining three service proposals were reviewed and evaluated by a special proposal review panel. This panel subsequently recommended that the service contracts for the five bus routes be awarded to the same contract operators operating the routes during 1987--that is, Wisconsin Coach Lines, Inc., for Routes No. 1, 2, 3, 4, and Milwaukee County Transport Services, Inc., for Route No. 79. A contract for Route No. 10 was re-negotiated for calendar year 1988 with Milwaukee Transport Services, Inc.

Based upon the competitive bids submitted and approved by the Waukesha County Board of Supervisors, total operating expenses for the transit system during 1988 were projected to increase by \$210,000, or 21 percent, over the 1987 level of \$995,000, to about \$1,205,000. About \$86,000, or 41 percent of this increase, was attributed to increased capital depreciation charges by the contract transit operator. Despite the significant increase in the projected operating expenses, projected decreases in operating revenues resulting from the projected continuation of the decline in transit ridership, and a reduction in federal transit operating assistance funds available to the County in 1988, county funding for the transit system during 1988 was projected to decrease by 64 percent, to about \$16,000 in 1988. The principal reason for this decrease was the competitive bids submitted by Wisconsin Coach Lines, Inc., for Routes No. 1 through 4, and by Milwaukee Transport Services, Inc., for Route No. 79. With respect to Routes No. 1 through 4, the private transit operator agreed to assume responsibility for funding any operating expenses for these routes during 1988 which would not be covered by projected operating revenues or federal and state transit assistance funds, thereby eliminating the need for county funds for these routes. With respect to Route No. 79, projected operating revenues in combination with federal and state assistance funds were estimated to cover all the projected operating expenses for this route, except those expenses for depreciation of publicly owned equipment and facilities.

Alternative Transit Service Changes for 1989-1992

A second set of alternative service options was also developed and evaluated, with this set being for the period 1989 through 1992. In order to address concerns expressed by some members of the Advisory Committee regarding the future needs for transit service within the County should there be a return to higher gasoline prices such as experienced in the area between 1979 and 1982, the analysis of alternative service options for 1989 through 1992 was conducted using two scenarios with different assumptions concerning the price of motor fuel. The first scenario, based upon an assumed continuation of past trends, assumed that motor fuel prices, after increasing to about \$1.00 per gallon during 1988, would remain at that level throughout the planning period. The second scenario also assumed that gasoline prices would reach \$1.00 per gallon during 1988, but assumed that prices would then increase steadily over the rest of the planning period, ultimately reaching a level of \$1.55 per gallon by 1992. Under both scenarios, it was also assumed:

- That all proposed service changes would be implemented in 1989.

- That Waukesha County would continue to award service contracts for Routes No. 1 through 4 and 79 through a competitive bid process; and that, based upon the results of the competitive bid process followed for 1988, the current contract operators would be awarded the contract for these routes in future years.
- That operating expenses would increase somewhat over the period due to the effects of general price inflation.
- That passenger fares charged on all routes would be the same as those charged on the routes in early 1988.
- That federal transit operating assistance funds available to Waukesha County would be reduced by about \$34,000, or 19 percent, by 1992.
- That the operating budget for the county transit system during calendar years 1989 through 1992 would continue to require no more than a 2 percent increase over the local tax levy required in the immediately preceding year.
- That the private transit operator for Routes No. 1 through 4 would continue to assume responsibility for funding a portion of the operating expenses for these routes similar to the portion funded by the operator during 1988.

The potential impacts of the five alternative service options considered on the ridership and financial performance of the Waukesha County transit system during the period 1989-1992 are summarized in the following sections.

Alternative 1—Continue to Operate Transit Services Included in 1988 Budget: This alternative proposes that Waukesha County continue to operate during the entire period the transit services operated within the County during 1988. This would include the operation of all six bus routes subsidized by the County during 1987.

Under this alternative, the total transit system operating deficit would be expected to increase from the projected 1988 level of about \$864,000 to between \$1,068,000 and \$1,075,000 by 1992--increases of approximately 24 percent. The local share of the total operating deficit would be expected to increase from the projected 1988 level of \$5,300 to between \$106,000 and \$152,000.

Alternative 2—Fully Implement Service Cuts Included in Preliminary Staff Recommended 1988 Budget Option: This alternative proposed that Waukesha County fully implement the reductions in transit service which had been recommended by the Commission staff for calendar year 1988. These service reductions included the elimination of all Oconomowoc-to-Milwaukee bus service; reduced bus service between the Goerke's Corners public transit station and downtown Milwaukee; elimination of all weekend and holiday bus service between downtown Waukesha and downtown Milwaukee; a reduction in weekday midday bus service between downtown Waukesha and the Brookfield Square Shopping Center; and the

elimination of weekday late evening bus service between downtown Waukesha and downtown Milwaukee.

By 1992, the total operating deficit for the transit system under this alternative would be reduced to about \$849,000, or by about 2 percent from the projected 1988 level. The local share of the operating deficit would be expected to range between \$57,000 and \$89,000 by 1992.

Alternative 3—Vehicle Purchase/Lease-Back Option: This alternative proposed that Waukesha County use federal formula capital assistance funds to purchase a fleet of buses and lease them back to the private transit operator for use in providing transit service over Routes No. 1 through 4. With this arrangement, it was expected that the private transit operator would be able to reduce the costs charged to Waukesha County for operating the contract transit service since it would no longer have to charge depreciation for wear and tear of its own vehicles. Waukesha County would be responsible for providing the 20 percent nonfederal matching funds necessary to purchase vehicles through the existing federal formula block grant assistance program.

Alternative 4—Private Operator Proposal to Replace Service Provided Over Route No. 10: This alternative proposed that Waukesha County modify Routes No. 1 and 2 to replace the service currently provided over Route No. 10, as was proposed by the private transit operator currently under contract with Waukesha County under a service option considered for the 1988 transit system budget. Under this alternative, the private transit operator would essentially shift the bus runs that currently operate on Route No. 1 over IH 94 and Greenfield Avenue to operation over E. and W. Wells Street, Wisconsin Avenue, and Blue Mound Road to provide replacement bus service for Route No. 10 over Route No. 2 between downtown Milwaukee and the Brookfield Square Shopping Center.

By 1992, the total operating deficit for the transit system under this alternative would range between \$934,000 and \$949,000, representing increases of between 8 and 10 percent over the projected 1988 level. The local share of the operating deficit by 1992 would range from \$34,000 to \$83,000.

Alternative 5—City of Waukesha Proposal to Restructure Routes No. 1 and 2:

This alternative proposed that Waukesha County eliminate all Oconomowoc-to-Milwaukee bus service over Routes No. 3 and 4, along with all weekend and holiday bus service over Routes No. 1 and 2, and restructure the weekday bus service operated over Routes No. 1 and 2 between the City of Waukesha and the Milwaukee central business district so that most of the bus runs are operated over the freeway to reduce travel times. A key element of the restructuring of the Waukesha-to-Milwaukee bus service was the replacement of the existing county bus service provided between downtown Waukesha and the Brookfield Square Shopping Center over Blue Mound Road and Greenfield Avenue, and the existing City of Waukesha bus service operated between downtown Waukesha and the Goerke's Corners public transit station, with one bus service provided using a single route operated over Blue Mound Road between downtown Waukesha and the Brookfield Square Shopping Center. In addition, operating headways on the in-city portion of this route would be set at 30 minutes during all times of operation, which would represent a reduction in headways and an increase in

service when compared with the existing city bus route operated during weekday nonpeak periods and all day on Saturdays.

By 1992, the total operating deficit for the county transit system under this alternative--assuming operation of the bus service between downtown Waukesha and Brookfield Square by the City of Waukesha transit system--would range from \$703,000 to \$739,000, representing a reduction of between 15 and 18 percent from projected 1988 levels. The county share of the operating deficit by 1992 would range from \$5,400 to \$30,000.

In addition, if the City were to operate the bus service within the Blue Mound Road corridor, a portion of the costs of extending city bus service into the corridor would need to be borne by another public sponsor. Should the County be the sponsor, it would need to provide \$13,000 to \$18,000 by 1992. These funds would be in addition to the funds needed to subsidize the regular county routes.

Evaluation of Alternatives: The alternative service option proposing county purchase of a bus fleet for lease back to a private transit operator was dismissed as a viable option because, with the advancement of the federal capital-cost-of-contracting policy, there would be no advantage to acquiring a fleet of revenue vehicles. Rather, if Waukesha County continued to award service contracts using a competitive bid process, depreciation charges passed through to Waukesha County by a private transit operator using its own equipment and facilities would be eligible for 80 percent federal assistance plus 37.5 state transit assistance. This would result in federal and state aids amounting to about 118 percent of eligible private operator depreciation expenses being available to Waukesha County, compared with 80 percent federal funding and no state funding if Waukesha County were to purchase a fleet of transit vehicles. Such federal and state aids, coupled with continued flexibility allowed for transit service levels under the current contract arrangement, would outweigh the possible advantage of lower operating costs with county ownership of revenue vehicles.

A comparative evaluation of the remaining four alternative transit service options was conducted to identify differences among the alternatives concerning their projected impacts over the period on transit system ridership and service levels; the overall effectiveness and efficiency of the transit system; and county funding requirements. Based on this information, it was determined that if county funds for subsidizing the operation of the county transit system continued to be limited during the period, the status quo alternative should be dismissed as not being a viable alternative for the Waukesha County transit system. Under that alternative, county funds required to subsidize the operation of the transit system would exceed anticipated county funding limits by 1990 under both future scenarios.

The remaining three alternative service options all proposed further modifications to the county transit service above and beyond those implemented during 1988 in order to reduce the need for county funding. Assuming that there would be a return to high motor fuel prices, the alternative service option proposing modifications to Routes No. 1 and 2 to replace service over Route No. 10 would result in a cutback from 1988 transit service levels of about 8 per-

cent, and would keep county funding requirements for the transit system below projected budget limits during the entire period. If past trends were to continue, resulting in relatively low motor fuel prices during the period, the county funding requirement would exceed projected budget limits by 1991. However, the service that would be eliminated under this alternative had been identified in the performance evaluation as one of the most effective services provided by the County. Consequently, while its elimination would reduce operating costs by about 12 percent, it would also reduce ridership by between 15 and 20 percent. Because the alternative would eliminate services that were more effective than those retained, and reduce the effectiveness of the transit system in terms of cost per rider and deficit per rider, this alternative was also rejected.

The alternative proposing that Waukesha County implement the remaining service cuts included in the preliminary recommended service proposal for the 1988 operating budget was also rejected. The reduction from 1988 service levels of 25 percent proposed under this alternative would be expected to improve the overall effectiveness and efficiency of the Waukesha County transit system, as the services eliminated would be far less effective or efficient than those retained. However, the county funds required to subsidize the transit system would exceed projected budget limits by 1991 assuming a continuation of past trends, and by 1992 assuming a return to high motor fuel prices.

The projected impacts on the Waukesha County transit system of the fifth alternative service option were found to be superior to those of the other transit service alternatives. This alternative would also provide for a 25 percent cutback in transit service levels, which would improve the overall effectiveness and efficiency of the county transit system. However, unlike under the other alternatives considered, under this alternative ridership would increase between 1989 and 1992 under both future scenarios due to the actual and perceived improvement in the transit service provided between Waukesha and the Goerke's Corners public transit station and downtown Milwaukee. Consequently, under this alternative the required county funding level for the county transit system would be reduced by 80 to 95 percent from the level projected under the status quo alternative, which would enable the County to stay within the projected budget limits for the transit system during the entire period under both future scenarios.

Because this alternative also proposed that changes be made in the City of Waukesha's local bus system, consideration was also given to the projected impacts of this alternative on the city transit system. If the City were to operate the single bus route within the Blue Mound Road corridor, the proposed service changes would be expected to have a positive impact on ridership of the city bus system, with ridership increasing between 16 and 17 percent by 1992 over that projected for the existing transit system. However, increases of between 9 and 13 percent in the local share of the operating deficit for the city transit system would also result from the proposed service change. In addition, the City would need to acquire one additional transit vehicle to provide the service over the proposed route extension, at a total cost of approximately \$147,500. Assuming that federal transit capital assistance funds would be used to finance 80 percent of costs, the City would be responsible for \$29,500, or 20 percent.

Two potential drawbacks of merging the county and city bus routes within the Blue Mound Road corridor were identified. The first is the need for an agreement on the proposed service changes. Should the County be agreeable to implementing the proposed service changes for Routes No. 1 and 2 between Waukesha and downtown Milwaukee but the County and City fail to reach agreement on the proposed changes to the existing city and county bus services within the Blue Mound Road corridor, it is possible that no bus service would be available between the City of Waukesha and the Brookfield Square Shopping Center.

The second drawback was the potential for problems to develop with the private transit operator under contract with Waukesha County to provide the existing transit service between the City of Waukesha and the Brookfield Square Shopping Center. Should there be attempts to replace this service without giving proper consideration to the potential for this service to be competitively awarded to a private transit operator, the existing private transit operator could protest such a decision under current federal guidelines, which would delay or prevent the proposed revision of bus service within the Blue Mound Road corridor.

While these two drawbacks represent potential problems to the implementation of the fifth transit service alternative, it was determined that they would not be insurmountable obstacles. Careful coordination between city and county staffs in implementing the routing and service changes proposed for the county and city bus systems should ensure that bus service within the Blue Mound Road corridor would not be disrupted. In addition, if the County and City give consideration to suggestions and proposals made by private transit operators for the provision of restructured bus service between the City of Waukesha and the Brookfield Square Shopping Center, it should be in compliance with the current federal guidelines, thereby avoiding potential delays in, and the prevention of, the implementation of the proposed routing revisions.

Final Recommendations: Based upon the preceding evaluation, Alternative 5 was recommended for implementation by both Waukesha County and the City of Waukesha. However, while the analyses of this alternative were based upon the assumed implementation in 1989 of all the service changes included therein, it was recommended that the proposed changes in county and city bus services be staged to occur as conditions warranting them develop over the period. This staging would take into consideration several factors, including the actual need to reduce transit services to meet future budget limits, and the ability of the County and the City of Waukesha to resolve issues pertaining to the operation and funding of local bus service between the City and the Brookfield Square Shopping Center.

Regarding those county transit services that were proposed for elimination under the alternative--as they had been determined to be not effective in terms of ridership generated per cost of operation--it was recommended that Waukesha County include these services in negotiations with the current private operator during the last two years of the operator's three-year contract with the County--1989 and 1990. As long as existing transit services can continue to be provided at no county subsidy, or for a county subsidy within the estimated county budget limits, it was recommended that the transit

services proposed for elimination continue to be provided. The ability of the County to retain services proposed for elimination in 1990 and beyond would, thus, depend upon negotiations with the private transit operator for the costs of the existing transit services. In this respect, it was noted that the private transit operator had, during review of the alternatives by the Advisory Committee, indicated a willingness to work with the County to provide all of the company's existing transit services for costs within future county budget limits.

Regarding the proposed modifications to county and city transit services, no service modifications could be implemented before agreement is reached between the City and the County on who should be responsible for overseeing the recommended revised service between the City and the Brookfield Square Shopping Center, and how the service will be jointly funded by these parties. In addition, the issue of which transit operator or contractor will provide the transit service between the City and the Brookfield Square Shopping Center would need to be resolved, and consideration would need to be given to the contracts that the County has with the existing private transit operator and the City has with its private management firm, both of which run through 1990.

It was therefore recommended that efforts by the County and City be made to reach agreement on, and resolve difficulties associated with, the recommended transit service changes within the Blue Mound Road corridor; and that upon reaching an agreement, the service modifications recommended under Alternative 5 be implemented. In the interim, it was recommended that actions be taken by both the County and the City to encourage the use of existing county bus routes serving the City of Waukesha. Finally, it was recommended that the results of an analysis of alternative operating agencies and institutions conducted under the transit study for Waukesha County be considered by both the County and the City.

On April 18, 1988, the Advisory Committee acted to accept the final staff recommendations presented above, calling for the staged implementation of Alternative 5 by both Waukesha County and the City of Waukesha.

THE RECOMMENDED PLAN

Operational Changes

The recommended plan for the County's fixed-route transit service calls for a number of changes in the routes currently subsidized by the County. Foremost among the proposed service changes would be the elimination of the most ineffective of the existing transit services, including all bus service provided west of the Goerke's Corners public transit station over the two existing Oconomowoc-to-Milwaukee bus routes, and all weekend and holiday bus service provided over the two existing Waukesha-to-Milwaukee bus routes. In addition, the recommended plan calls for modifying the existing weekday bus service provided between Waukesha and downtown Milwaukee by restructuring this service so that most of the bus runs are operated over freeway facilities to reduce travel times. To facilitate this service improvement, the plan calls

for the replacement of the existing county bus service provided between Waukesha and the Brookfield Square Shopping Center over Blue Mound Road and Greenfield Avenue, and the existing City of Waukesha bus service operated between downtown Waukesha and the Goerke's Corners public transit station, with one bus service provided using a single route.

The proposed service changes would not all be implemented immediately, but rather would be staged over the planning period as conditions warranting their implementation develop. In addition, problems regarding the proposed replacement of the existing duplicative county and city bus routes operated within the Blue Mound Road corridor would need to be resolved before the recommendation for a single bus route to serve travel between downtown Waukesha and the Brookfield Square Shopping Center could be implemented.

Alternative and Recommended Operating Agencies and Institutions

In preparing the plan recommendations, an analysis was undertaken of alternative operating agencies and institutions which could be used to oversee the operation of both the contract transit services provided by Waukesha County and the local transit services provided by the City of Waukesha. These alternatives were:

- Operation of all transit services in the County by Waukesha County.
- Operation of all transit services in the County by the City of Waukesha.
- Operation of all transit services in the County by a transit authority.
- Separate but coordinated operation of city and county transit services.

The alternative administrative strategy proposing operation of all transit service in the County by the City of Waukesha was rejected, as it was considered to be impractical. This was because it would require the City of Waukesha staff to supervise, or to directly operate and manage, transit services outside the City which would be of limited benefit to city residents. It was considered unlikely that the City would agree to be responsible for the operation of such services, particularly if the services required any local public funds.

While the alternative calling for the operation of all transit services by Waukesha County was considered to represent a more logical operating and administrative alternative, it was also rejected because it would require a substantially higher level of commitment to transit service than the County has indicated in the past that it is willing to make. The past level of commitment exhibited by the County toward its own transit program also made it doubtful that the City would agree to transfer control of its public transit system to the County.

The third alternative would have required the creation of an independent transit authority to oversee the operation and administration of both Waukesha County and City of Waukesha transit services. However, the state statute which authorizes the creation of such an authority provides the authority with no

powers of taxation. Consequently, if local funds were required to support the operation of the transit services, the authority would need to request that such funds be included in the annual budgets of Waukesha County and the City of Waukesha or other municipalities within the district. Because this could make it difficult for a transit authority to obtain local funds needed to support the transit services it provides, this alternative was rejected.

Based on the problems associated with the first three alternative strategies, it was recommended that both Waukesha County and the City of Waukesha continue the separate operation of their respective public transit programs, but make efforts to coordinate both programs in the area of staff resources and with respect to the private firms contracted with to operate and/or manage the transit services. Under this strategy, it was recommended that the County contract with the City of Waukesha for the use of existing city staff to perform certain functions for the county transit program for which the county staff does not have the expertise. If the City were to indicate to the County that it was not interested in coordinating staff resources, or would not be able to do so without adding additional personnel and increasing costs, the County could increase its staff capability by using county staff involved in supervising the specialized transportation programs administered by the Waukesha County Department of Aging. As an alternative to these two actions, the County could request that the Regional Planning Commission provide the staff to perform the transit program activities. It was also recommended that the City and County make an effort to coordinate the separate bid processes that are followed to award contracts for the operation and/or management of their respective transit systems in order to increase efficiencies and lower costs through the selection of a common firm to operate and manage the city and county transit systems.

Specialized Transportation Services for Handicapped Persons

The recommended plan also calls for the County to continue to provide specialized transit services which can effectively be used by handicapped persons. The County has proposed that a number of changes be made to its handicapped transportation program to comply with current federal regulations governing nondiscrimination on the basis of handicap in federally assisted public transportation programs. The proposed changes were documented in a report which has been submitted to the federal Urban Mass Transportation Administration for approval. The County is delaying taking action toward implementing the proposed changes to its specialized transportation services until it receives notification that its program has been approved by UMTA. Should the County decide to eliminate the fixed-route bus services identified as candidates for elimination in its recommended transit plan, some of the proposed changes to its handicapped transit program would not be required. This could result in a reduction in the county funding requirement for its handicapped transportation program, and could improve the possibility for continued operation of the specialized transportation services provided under the program by the Waukesha County Department of Aging.

Financial Commitment

With the staged implementation of the recommended service changes, transit service levels on the regular routes operated by the County--that is, those routes which the County currently operates and under the recommended plan would continue to operate--would be expected to decline by about 24 percent between 1989 and 1992. Ridership levels on these services would, however, decline by only about 15 percent during this time. In addition, transit service operating expenses and operating deficits would be expected to decline by about 11 percent over the period. The county funding requirement for these transit services would be about \$50,000 by 1992.

In addition, the County would be responsible for providing a portion of the local funds required to operate the bus route between downtown Waukesha and the Brookfield Square Shopping Center, which is recommended to replace the existing county and city transit services operated within the Blue Mound Road corridor. Assuming operation of the route by the City of Waukesha transit system at the beginning of 1991, the county share of the incremental operating costs for modifying existing city bus routes would be about \$22,000 in 1992. However, based upon Waukesha County's experience with competitively awarding service contracts during 1988, county funds for operation of this route could be less if the County were to competitively bid the service contract for the route.

The above amounts of county funds are based on the assumption that federal and state funds will continue to be drawn upon to reduce the County's financial commitment for the annual operation of the recommended transit system. It is recommended that federal transit formula assistance funds through the UMTA Section 9 formula block grant program continue to be sought to defray a portion of the annual operating deficit of the Waukesha County transit services. At the specific request of both the Waukesha County Highway and Transportation Committee and the City of Waukesha, alternative methods for dividing the total amount of federal transit formula assistance funds allocated each year to the transit operators within Waukesha County were reviewed. A total of 10 alternative methods were considered, including continuing to negotiate the division of the federal transit operating assistance funds available; applying a modified national formula to distribute funds; distributing funds based upon specific characteristics of each transit operation, including measures of ridership, service provided, system efficiency, and local funding commitment; and distributing funds based upon a weighted allocation method using measures of service utilization and service provided. The analysis concluded that the most reasonable method for distributing federal transit operating assistance funds between the County and the City would be that proposed by the last alternative, which would base the division of funds on the most important measures of the actual need for transit service. Use of this method to distribute funds within the County would result in about the same proportionate share of available federal transit operating assistance funds as has been negotiated under the current method for the past two years.

An analysis was also conducted of the capacity of available funding sources to fund the recommended transit system over the five-year planning period. This analysis concluded that the projections made for the recommended transit

system, including those for operating expenses, operating revenues, and operating deficits, are reasonable based upon trends observed over the five-year period between 1983 and 1987. In addition, the amount of public funds that would be required over the planning period from the identified federal, state, and county funding sources appears to be within the funding capability of each public agency. With respect to Waukesha County in particular, assuming the staged implementation of the plan recommendations, the proportion of the county funding requirement for the transit system that is funded with local property tax dollars is projected to increase substantially between 1988 and 1992. Even assuming that total county property tax dollars would increase between 1988 and 1992 at a more modest rate than during the previous five-year period, the proportion of total county tax dollars that would be required to be committed to the transit system over the planning period would be virtually the same as the proportion that was committed between 1983 and 1987. This would indicate that Waukesha County could fund the recommended transit system during the upcoming five-year period with no increase in its local funding commitment.

Plan Implementation

Waukesha County will bear most of the responsibility for implementation of the recommended transit plan. However, the City of Waukesha will also play a key role in plan implementation, as the recommended plan includes changes in existing city as well as county transit routes. It is recommended that the City negotiate with the County toward the provision of only one bus service to serve travel within the Blue Mound Road corridor, and thereby determine which level of government is to provide the service. It has also been recommended that the City consider providing staff assistance to Waukesha County in areas of the County's transit program where it currently lacks the necessary staff expertise, and that the City coordinate with the County the procurement of management services for its transit system. Finally, the plan recommends increased efforts by the City to coordinate with the county bus services serving the City of Waukesha.

In addition, the following recommendations were made for other governmental agencies:

1. That the U. S. Department of Transportation, Urban Mass Transportation Administration, and the Wisconsin Department of Transportation endorse the recommendations of the transit plan as a guide for the programming, administration, and granting of federal and state transit assistance funds for the County's public transportation program.
2. That the Southeastern Wisconsin Regional Planning Commission endorse the recommendations of the transit plan and, at the request of Waukesha County, include recommended operating and capital projects for the County's public transportation program in the transportation improvement program for the Southeastern Wisconsin Region; and that, should the County be unable to arrange for coordinated use of City of Waukesha staff to provide assistance for county transit program activities, the Commission agree to provide such staff assistance upon the County's request.

CONCLUSION

If adopted, this transit system plan for Waukesha County can provide a valuable guide for improving the effectiveness and efficiency of its public transit system over the next five years. The plan is based upon extensive inventories and analyses of the socioeconomic and land use characteristics of the area, of the travel habits and patterns of the resident population, and of the operating and performance characteristics of the existing public transit system. The plan identifies existing problems on the public transit system as evidenced by low-performance routes and unproductive route segments. The plan recommends specific transit service improvement actions designed to solve or mitigate the identified deficiencies, while emphasizing the most cost-effective means of system operation. The plan also recommends changes in the current administrative practices in order to more effectively administer the county transit program and coordinate certain elements of that program with the city transit program. Implementation of the recommended transit system would concentrate available resources and capabilities in areas that will have the most significant positive impact on transit performance, thus assuring the most effective use of limited public financial resources.

APPENDICES

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Appendix A

GLOSSARY OF TECHNICAL TERMS

The following list provides definitions of certain technical terms used in this planning report. It should be recognized that while some of these terms may have different meanings when used in a study not related to transportation, or even slightly different meanings when used in other transportation studies, the definitions set forth herein are those used in the preparation of the transit plan for Waukesha County.

- AMORTIZATION PERIOD:** The period of time over which capital facilities are paid for by contribution either to a debt amortization sinking fund or to a capital recovery fund. The amortization period should approximate the useful life, measured in years, of the facility or piece of equipment concerned.
- AVERAGE SPEED:** The speed which a transit vehicle achieves between stops, including acceleration, deceleration, and dwell time.
- CAPITAL EXPENSE:** The outlay of funds for the acquisition of operating equipment and the construction of support facilities necessary to implement a particular plan or project.
- CIRCULATION DISTRIBUTION SERVICE:** Local public transit service provided for the movement of passengers within major urban activity centers.
- CYCLE SCHEDULING:** A scheduling technique for providing fixed-route urban public transit service under which the vehicles providing service meet at a common location at the same time, thus maximizing the opportunity for transfer of passengers between routes.
- DEADHEAD:** The movement of a revenue vehicle without passengers on board, such as from a storage area to the beginning of a regular route.
- DEMAND-RESPONSIVE SERVICE:** A range of local public transit services characterized by the flexible routing and scheduling of relatively small vehicles to provide shared-occupancy, door-to-door personalized transportation on demand.
- DEPRECIATION EXPENSE:** A portion of the original cost of capital facilities or equipment allocated to the annual cost of operation. Depreciation expenses are derived by spreading in some equitable manner the original cost of the facility or piece of equipment, less any salvage value, over the useful life of the facility or piece of equipment.
- DESIRE LINE:** A straight line connecting the origin and destination of a person trip.
- DWELL TIME:** The amount of time a transit vehicle stands at a station or stop while picking up or discharging passengers.
- ELDERLY PERSON:** A person 65 years of age or older.
- EXPRESS SERVICE:** That component of the urban public transportation system which serves moderate-length trips, generally over arterial streets and highways, with limited stops located only at intersecting transit routes, intersecting arterial streets, and major traffic generators.
- FAREBOX RECOVERY RATE:** The ratio of revenues generated by passenger fares to operating expenses expressed as a percent.
- FAREBOX REVENUE:** See "Passenger Revenue."

FAR-SIDE STOP: A transit stop located on the far side of a street intersection which requires that the transit vehicle cross the intersection before stopping to pick up or discharge passengers.

FIXED EXPENSE: A cost of providing transit service that remains relatively constant, irrespective of the level of operational activity.

GRID ROUTING: A routing technique for providing fixed-route urban transit service under which bus routes are laid out in a distinct grid or rectangular pattern, and do not focus on a single geographic location. Because passengers must transfer at route intersections, systems using grid routing usually must operate with a high level of service--that is, with short headways--to minimize waiting time.

HANDICAPPED PERSON: A person who, by reason of illness, injury, congenital malfunction, other permanent or temporary incapacity or disability, is physically unable to use regular bus service for the general public.

HEADWAY: The time interval between any two successive transit vehicles providing service on the same route in the same direction.

INCREMENTAL EXPENSE: The net difference in cost between two alternative plans or programs.

LEVEL OF SERVICE: A set of characteristics that indicate the quality and quantity of public transportation services being provided, including characteristics that are readily quantifiable such as headway, travel time, travel cost, and number of transfers, and those that are difficult to quantify such as comfort and modal image.

LOAD FACTOR: The ratio of passengers carried on a public transit vehicle to the seated capacity of the vehicle.

LOCAL SERVICE: That component of the urban public transportation system which makes frequent stops, usually every two to four city blocks, and operates at lowest average speeds, and thus provides either a local or a collection-circulation distribution service for trips of relatively short length.

MAJOR TRAFFIC GENERATOR: A land use area or specific facility which attracts a high volume of person trips.

NEAR-SIDE STOP: A transit stop located on the near side of a street intersection which permits the transit vehicle to pick up or discharge passengers before crossing the intersection.

NONCYCLE SCHEDULING: A scheduling technique for providing fixed-route urban public transit service under which each transit route in a community has transit service scheduled on an individual basis independent of the schedules of other routes.

OPERATING DEFICIT: The operating expense less the operating revenue.

OPERATING EXPENSE: The sum of all transit system costs incurred in providing transportation and incidental services, and in maintaining transit system equipment and property.

OPERATING REVENUE: Revenue derived from the provision of public transit service including: 1) fares paid by transit riders; 2) charter and special contract service revenues; and 3) revenues, for example, from the sale of advertising space aboard transit vehicles, income from concession rentals, or income from contract maintenance services.

OVERALL TRAVEL SPEED: The over-the-road travel distance divided by the overall travel time.

OVERALL TRAVEL TIME: The total door-to-door time for travel between the origin and destination of a trip, including all the major components of travel time which, for transit travel time, include walk or automobile access

at origin, wait time for the first transit vehicle boarded, transfer time, total line-haul or in-vehicle time, and egress time at the destination.

PASSENGER REVENUE: Revenue derived from fares paid by passengers traveling aboard public transit vehicles operating in regular service.

PEAK PERIOD: The hours, usually during weekday mornings or afternoons, when the demand for transportation service is the heaviest.

PULSE SCHEDULING: See "Cycle Scheduling."

RADIAL ROUTING: A routing technique for providing fixed-route urban transit service under which bus routes originate in outlying areas and converge on a central location, usually the central business district. The routes generally follow a radial street system and coincide with the locations of major travel corridors. Because routes focus on a central location, systems using radial routing frequently use cycle scheduling to provide for convenient transfers between routes.

RAPID TRANSIT SERVICE: That component of the urban public transportation system which provides the highest average speeds by generally operating over freeways, thus serving the longest trips along the most heavily traveled corridors, with stops generally limited to the ends of the route, including park-ride lots.

SEATED CAPACITY: The number of seated passengers capable of being carried in a transit vehicle.

STOP: An area usually designated by distinctive signs or by curb or pavement markings at which passengers wait for, and board or alight from, public transit vehicles.

TERMINAL: The end of a transit route or an elaborate transit station which is designed to handle not only the movement of transit vehicles in the boarding and alighting of passengers, but also the transfer of movements between routes and/or different modes.

TOTAL EXPENSE: The sum of operating and capital costs.

TRANSFER TIME: The time required to effect a transfer between routes or a change of mode.

TRANSIT-DEPENDENT PERSON: A person for whom the transit system is the principal means of mobility because of a lack of transportation options.

TRIPPER SERVICE: Local public transit service operated over a limited time period of each weekday and, in some cases, over a special route to accommodate peak ridership demand, or to serve special community needs.

TRIP PURPOSE: The primary reason for making a trip such as work, shopping, or personal business.

VEHICLE CAPACITY: The maximum number of passengers that a vehicle is designed to accommodate comfortably, including both seated and standing passengers.

WAIT TIME: Time spent at a bus stop waiting for a transit vehicle.

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Appendix B

SURVEY FORMS USED ON WAUKESHA COUNTY BUS ROUTES DURING 1984 SEWRPC ON-BUS SURVEY

Figure B-1

SURVEY FORM USED ON BUS ROUTES OPERATED BY WISCONSIN COACH LINES, INC.

Please Complete and Return on Bus, or Deposit in Any U. S. Mailbox

PUBLIC TRANSPORTATION SURVEY

This study of transit riding is being conducted in order to plan better public transportation in your area. Your cooperation in filling out this card is essential to the study. Your replies will be kept entirely confidential and will be used for statistical purposes only. When you have completed the card, please return it to the survey officer on the bus or deposit it in any U. S. mailbox. This survey is being conducted by the Southeastern Wisconsin Regional Planning Commission in cooperation with the U. S. Department of Transportation, the Wisconsin Department of Transportation, and the local transit operator.

(Please print information)

1. MY HOME ADDRESS IS:

(Street Address) (City, Village, or Town) (County)

For Office Use Only

2. I GOT ON THIS BUS AT THE INTERSECTION OF:

_____ and _____

3. THE TIME OF DAY WAS:

: AM
 : PM

(Record time and circle AM or PM)

4. I GOT TO THIS BUS BY:

Enter Number

1. Walking
2. Auto-Parked
3. Auto-Dropped Off
4. Bus
5. Other _____ (please specify)

5. I PAID:

Enter Number

1. A Full Fare
2. A Half Fare
3. A Student Fare

5a. MY FARE WAS PAID:

Enter Number

1. In Cash (give amount) _____ cents
2. By Weekly Pass
3. By Monthly Pass
4. By Ticket/Token
5. By Free Transfer
6. By Paid Transfer

6. IS THIS PART OF A ROUND TRIP BY BUS TODAY? (Check Yes or No)

☐ Yes

If "yes," record the actual or expected starting time of your bus trip in the opposite direction.

☐ No

: AM PM (Record Time and Circle AM or PM)

7. I CAME FROM: (If other than "Home" complete Item 8 and continue)

Enter Number

1. Home
2. Work
3. School
4. Social Activity/Eating Meal
5. Shopping
6. Recreational Activity
7. Conducting Personal Business, Medical, Dental
8. Other _____ (please specify)

IF YOU CAME FROM "HOME" GO TO ITEM 9

8. THE PLACE I CAME FROM IS LOCATED AT:

(Street Address, Building Name, or Nearest Street Intersection) (City, Village, or Town) (County)

For Office Use Only

9. I WILL GET OFF THIS BUS AT THE INTERSECTION OF:

and _____

10. AFTER LEAVING THIS BUS, I WILL: (Check One)

☐

Not Transfer

☐

Transfer to _____ and get off at _____
(Bus Route Name and/or Number) (Name of Stop or Intersection)

☐

And Transfer Again to _____ and get off at _____
(Bus Route Name and/or Number) (Name of Stop or Intersection)

11. I AM GOING TO: (If other than "Home" complete Item 12 and continue)

Enter Number

1. Home
2. Work
3. School
4. Social Activity/Eat Meal
5. Shop
6. Recreational Activity
7. Conduct Personal Business, Medical, Dental
8. Other _____ (please specify)

IF YOU ARE GOING TO "HOME" GO TO ITEM 13

12. THE PLACE I AM GOING TO IS LOCATED AT:

(Street Address, Building Name, or Nearest Street Intersection) (City, Village, or Town) (County)

For Office Use Only

13. I AM A LICENSED DRIVER: (Check One)

☐ Yes

☐ No

14. I AM: (Check One)

☐ Male

☐ Female

15. MY RACE IS:

Enter Number

1. Black
2. White
3. American Indian/Alaskan
4. Asian/Pacific Islander
5. Other _____

17. MY AGE IS:

:

Enter Number

1. 5 or under
2. 6-12
3. 13-15
4. 16-18
5. 19-24
6. 25-34
7. 35-44
8. 45-54
9. 55-64
10. 65 and over

18. OUR HOUSEHOLD INCOME IS:

:

Enter Number

1. Under \$5,000
2. \$ 5,000-\$ 7,499
3. \$ 7,500-\$ 9,999
4. \$10,000-\$12,499
5. \$12,500-\$14,999
6. \$15,000-\$19,999
7. \$20,000-\$24,999
8. \$25,000-\$29,999
9. \$30,000-\$34,999
10. \$35,000-\$39,999
11. \$40,000 or Over

16. OUR HOUSEHOLD HAS _____ AUTOS;

_____ TRUCKS, VANS, AND CAMPERS;

AND _____ MOTORCYCLES

19. THE NUMBER OF PERSONS LIVING IN OUR HOUSEHOLD IS _____

THANK YOU FOR YOUR PARTICIPATION, YOUR COOPERATION IS GREATLY APPRECIATED.

Figure B-2

SURVEY FORM USED ON BUS ROUTES OPERATED BY MILWAUKEE TRANSPORT SERVICES, INC.

Please Complete and Return on Bus, or Deposit in Any U. S. Mailbox

PUBLIC TRANSPORTATION SURVEY

This study of transit riding is being conducted in order to plan better public transportation in your area. Your cooperation in filling out this card is essential to the study. Your replies will be kept entirely confidential and will be used for statistical purposes only. When you have completed the card, please return it to the survey officer on the bus or deposit it in any U. S. mailbox. This survey is being conducted by the Southeastern Wisconsin Regional Planning Commission in cooperation with the U. S. Department of Transportation, the Wisconsin Department of Transportation, and the Milwaukee County Transit System.

(Please print information)

1. MY HOME ADDRESS IS: _____
 (Street Address) (City, Village, or Town) (County) For Office Use Only

2. OUR HOUSEHOLD HAS _____ AUTOS;
_____ TRUCKS, VANS, AND CAMPERS;
AND _____ MOTORCYCLES.

3. THE NUMBER OF PERSONS LIVING IN OUR HOUSEHOLD IS _____.

4. I GOT ON THIS BUS AT THE INTERSECTION OF: _____ and _____

5. THE TIME OF DAY WAS: : AM
 : PM
 (Record time and circle AM or PM)

6. I GOT TO THIS BUS BY: (Check One)
☐ 1. Walking
☐ 2. Auto-Parked
☐ 3. Auto-Dropped Off
☐ 4. Bus: Routes _____ and _____
☐ 5. Other _____
 (please specify)

7. I PAID: (Check One) **7a. MY FARE WAS PAID: (Check One)**

☐ 1. A Full Fare ☐ 1. In Cash (give amount) _____ cents ☐ 4. By Ticket/Token
☐ 2. A Half Fare ☐ 2. By Weekly Pass ☐ 5. By Free Transfer
☐ 3. A Student Fare ☐ 3. By Monthly Pass ☐ 6. By Paid Transfer

8. IS THIS PART OF A ROUND TRIP BY BUS TODAY? (Check Yes or No)
☐ Yes If "yes," record the actual or expected starting time of your bus trip in the opposite direction.
☐ No : AM PM (Record Time and Circle AM or PM)

9. I CAME FROM: (If other than "Home" complete Item 10 and continue). (Check One)
☐ 1. Home ☐ 4. Social or Recreational Activity ☐ 6. Conducting Personal Business, Medical, Dental
☐ 2. Work ☐ 5. Shopping ☐ 7. Other _____
☐ 3. School (please specify)

10. THE PLACE I CAME FROM IS LOCATED AT:
 (Street Address, Building Name, or Nearest Street Intersection) (City, Village, or Town) (County)
For Office Use Only

For Office Use Only

11. I WILL GET OFF THIS BUS AT THE INTERSECTION OF: _____ and _____

12. AFTER LEAVING THIS BUS, I WILL: (Check One)
☐ Not Transfer
☐ Transfer to _____ and get off at _____
 (Bus Route Name and/or Number) (Name of Stop or Intersection)
☐ And Transfer Again to _____ and get off at _____
 (Bus Route Name and/or Number) (Name of Stop or Intersection)

13. I AM GOING TO: (If other than "Home" complete Item 14 and continue). (Check One)
☐ 1. Home ☐ 4. Social or Recreational Activity ☐ 6. Conduct Personal Business, Medical, Dental
☐ 2. Work ☐ 5. Shop ☐ 7. Other _____
 (please specify)

14. THE PLACE I AM GOING TO IS LOCATED AT:
 (Street Address, Building Name, or Nearest Street Intersection) (City, Village, or Town) (County)
For Office Use Only

15. I AM A LICENSED DRIVER: (Check One)
☐ Yes ☐ No

16. I AM: (Check One)
☐ Male ☐ Female

17. MY RACE IS: (Check One)
☐ 1. Black ☐ 4. Asian/Pacific Islander
☐ 2. White ☐ 5. Other
☐ 3. American Indian/Alaskan

18. MY AGE IS: (Check One)
☐ 1. 5 or under ☐ 6. 25-34
☐ 2. 6-11 ☐ 7. 35-44
☐ 3. 12-15 ☐ 8. 45-54
☐ 4. 16-19 ☐ 9. 55-64
☐ 5. 20-24 ☐ 10. 65 and over

19. OUR HOUSEHOLD INCOME IS: (Check One)
☐ 1. Under \$5,000 ☐ 5. \$12,500-\$14,999 ☐ 9. \$30,000-\$34,999
☐ 2. \$ 5,000-\$ 7,499 ☐ 6. \$15,000-\$19,999 ☐ 10. \$35,000-\$39,999
☐ 3. \$ 7,500-\$ 9,999 ☐ 7. \$20,000-\$24,999 ☐ 11. \$40,000 or Over
☐ 4. \$10,000-\$12,499 ☐ 8. \$25,000-\$29,999

THANK YOU FOR YOUR PARTICIPATION. YOUR COOPERATION IS GREATLY APPRECIATED.