PRELIMINARY DRAFT APPENDIX

SEWRPC Planning Report No. 55 VISION 2050: A REGIONAL LAND USE AND TRANSPORTATION SYSTEM PLAN FOR SOUTHEASTERN WISCONSIN

Appendix B ACCURACY CHECKS OF THE YEAR 2011 TRAVEL SURVEYS

(Tables, figures, and maps are at end of Appendix)

INTRODUCTION

The accuracy and completeness of data obtained in the travel surveys was reviewed by comparing the survey data on regional population socio-economic characteristics to data from the 2010 Federal Census, 2006-2010 Census Transportation Planning Package (CTPP), American Community Survey (ACS) datasets, and other independent sources, and comparing survey data on regional travel and traffic to data from the 2006-2010 CTPP and vehicle traffic counts.

SOCIO-ECONOMIC ACCURACY CHECKS

The socio-economic data from the 2011 household travel survey was compared to data from the 2010 Census, CTPP, ACS, and other sources. The data comparisons included the distribution of households by household size, vehicles available, income, lifestyle¹; the distribution of population by age, gender, and employment status; and estimated total regional personal vehicle and commercial truck availability.

The percentage distribution of households by household size as established by the survey was essentially the same as that identified by the 2010 Federal Census at county and regional levels. Table B-1 provides a

¹ The lifestyle of a household is defined by whether a household is a retired or working household, determined by whether age of head of household is less than or greater than 65 respectively, and whether the working household has children or not.

comparison of the distribution of households by household size within each county as measured by the 2010 Census and as derived from the year 2011 resident household survey. The county-level survey data on household size are within 0.2 percent of corresponding 2010 Census data in almost all categories. At the regional level, the Census and survey data were essentially the same.

The next socio-economic accuracy check compared vehicle availability as measured by the 2006-2010 CTPP and SEWRPC estimates based on 2011 Wisconsin Department of Transportation (WisDOT) vehicle registration data, to vehicle availability as estimated by the 2011 resident household survey. Table B-2 compares estimates of the total number of vehicles available to households in the Region from the travel survey to those of the 2006-2010 CTPP and WisDOT vehicle registrations. The total distribution of vehicles available were accurately estimated by the survey, varying from 2006-2010 CTPP estimates by no more than 0.5 percent at the regional and county levels. As compared to 2011 estimates based on WisDOT vehicle registration data, the vehicle availability estimates from the survey, were within 7.3 percent at the county level, and within 0.5 percent at for the Region.

Table B-3 compares the distribution of households by vehicles available, and indicates that the distribution of households by vehicle availability is accurately estimated by the travel survey as compared to the 2006-2010 CTPP. The county level survey data on vehicle availability are within 1.0 percent of the corresponding 2006-2010 CTPP data in almost all categories.

The distribution of annual household income as estimated from the travel survey was also compared with similar data estimated from the 2006-2010 CTPP as shown in Table B-4. The estimated household income based upon the travel survey data by county varied by 0.1 to 26.6 percent from CTPP derived distributions, and at the regional level, the percentage of households in any given income range based on the 2011 resident household survey did not differ from the corresponding percentage of households based on CTPP data by more or less than 12.4 percent. Given that only 59 percent of the households provided income data and that the two datasets both represent sampled data, the variation in the travel survey distribution as compared with the CTPP is not unexpected.

The distribution of households based on household lifestyle from the travel survey was compared to the distribution obtained from the 2010 Federal Census and is set forth in Table B-5. As shown in Table B-5, the comparison indicated that the distribution of households was accurately estimated by the 2011

resident household survey, varying from the 2010 Federal Census by 0.1 to 4.7 percent at the county level, and 1.1 to 2.5 percent for the Region.

Table B-6 provides comparisons of data on the distribution of regional population by age category from the 2010 Federal Census data and from the 2011 household travel survey. This comparison indicated that the distribution of population by age category was accurately estimated by the survey, with a difference no greater or less than 1.2 percent from Federal Census estimates.

Table B-7 provides comparisons of data on the distribution of regional and county population by gender from the 2010 Federal Census data and from the 2011 household travel survey. The comparison indicated that the distribution of population by gender by county was accurately estimated by the survey, with a difference no greater or less than 0.8 percent from 2010 Federal Census estimates. Figure B-1 compares the composition of regional population by age and gender. This comparison indicated that the distribution of population by age and gender is accurately estimated by the 2011 resident household survey.

Table B-8 compares employed population estimates at the county and Region levels from the U.S. Bureau of Labor Statistics 2011 Local Area Unemployment Statistics (LAUS) and 2011 household travel survey. This comparison shows that the distribution of population by employment status is accurately estimated by the survey, with the distribution of employed persons varying by no more than 0.4 percent at the county and Region levels.

Lastly, estimates of commercial truck availability, including estimates by type, as determined by the 2011 travel survey, were compared with corresponding estimates as derived from 2011 Wisconsin Department of Transportation, Division of Motor Vehicles, registration records. This comparison, shown in Table B-9, indicates a high degree of accuracy for the commercial truck data derived from the survey, within the Region.

The results of the accuracy checks of the household and truck travel survey with respect to socio-economic characteristics and vehicle availability data indicate that the survey data demonstrates a high degree of accuracy and completeness, particularly considering the surveys, Census, CTPP, and ACS were conducted in different years; the Census, CTPP, and ACS include the Region's group quartered population and the household travel survey does not; and with respect to certain socio-economic characteristics, the travel survey, CTPP, and ACS are all sample surveys.

TRAVEL ACCURACY CHECKS

The travel accuracy checks included comparisons of travel to work characteristics as obtained from the ACS datasets and from the 2011 travel survey. The comparisons included mode of travel to work and work purpose travel between the counties of the Region. In considering these comparisons, it must be recognized that the ACS data and travel survey data are both from sample surveys, and that the ACS data is not the same as the travel survey data. The ACS data represents the "usual" mode and location of work travel over the prior week, and the Commission travel survey data represents travel on a specific assigned survey day. Therefore, some difference between the travel survey and Census data should be expected.

Table B-10 provides comparisons of the distribution of mode of travel to work by county as obtained from the 2009-2011 ACS data and from the 2011 travel survey. Table B-11 compares county to county travel within the Region from place of residence to place of employment. The data from the two sources closely compare, particularly when the differences between the two surveys are considered.

To verify that travel into and out of the Region was adequately represented by the 2011 travel inventory, travel accuracy checks were conducted at the boundaries of the Region along a defined cordon line as shown on Map B-1.² The findings shown in Table B-12 indicated that the travel survey data accurately represented external travel affecting the Southeastern Wisconsin Region.

Another set of travel accuracy checks included comparisons of the travel survey data with traffic counts of vehicle crossings at selected east-west screenlines within the Region.³ Three screenlines, as shown on Map B-1, were defined in the Milwaukee, Racine and Kenosha urbanized areas which paralleled natural or manmade barriers to minimize undetected crossings. The Milwaukee screenline, which roughly paralleled IH 94, extended across the Region from the Waukesha-Jefferson County line on the west to Lake Michigan on the east. The results of the screenline accuracy checks on the travel survey data, as shown in Table B-13, indicated that the simulated traffic volumes from the travel survey data accurately

² A cordon line is an imaginary line extending around a selected geographic area for the purpose of comparing and analyzing external travel data.

³ A screenline is an imaginary line extending through a selected portion of a geographic area along natural or built barriers providing a limited number of crossing points established for the purpose of comparing and analyzing travel data as estimated from traffic counts with data derived from travel surveys.

represented actual traffic counts in 2011, accounting for 87.2 percent of the traffic volumes crossing the screenlines in Kenosha, 100.2 percent in Milwaukee, and 98.6 percent in Racine. It should be noted that freeway reconstruction activities in 2011 likely impacted the accuracy of the Kenosha screenline traffic counts collected in 2011 overstating the difference between the travel survey data and estimated actual traffic flows.

The final major travel accuracy check compared simulated vehicle-miles of travel by county and for the Region as derived from the travel surveys and estimated actual vehicle miles based upon traffic counts. As shown in Table B-14, vehicle miles of travel as derived from the 2011 travel inventory, varied by 4.4 to 13.4 percent from estimated actual vehicle miles of travel at the county level. At the regional level, simulated vehicle-miles of travel represented 98.1 percent of total vehicle-miles of travel estimated from traffic counts, indicating that the simulated travel from travel survey data accurately replicates travel in the Region.

The results of socio-economic and travel accuracy checks on the travel inventory data indicate that the 2011 travel surveys are able to replicate regional socio-economic characteristics and travel with a high degree of accuracy and completeness.

Table B-1

COMPARISON OF THE ESTIMATED DISTRIBUTION OF HOUSEHOLDS BY HOUSEHOLD SIZE WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2010 FEDERAL CENSUS AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

		•	Kenosha County				1	Milwaukee Count	у	•
	2010 Federal Census		Household Survey			2010 Federal Census		Household Survey		
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Household Size	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
One Person	16,388	26.2	16,427	26.2	-	129,317	33.7	129,573	33.7	-
Two Persons	19,968	31.9	19,978	31.9	-	116,827	30.5	117,073	30.5	-
Three Persons	10,484	16.7	10,509	16.7	-	57,206	14.9	57,327	14.9	-
Four Persons	9,088	14.5	9,110	14.5	-	42,925	11.2	43,015	11.2	-
Five or More Persons	6,722	10.7	6,738	10.7	-	37,316	9.7	37,395	9.7	1
Total	62,650	100.0	62,762	100.0	-	383,591	100.0	384,383	100.0	-

			Ozaukee County					Racine County		
	2010 Federal Census		Household Survey			2010 Federal Census		Househo	ld Survey	
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Household Size	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
One Person	8,475	24.8	8,509	24.7	(0.1)	19,958	26.4	19,997	26.4	-
Two Persons	12,791	37.4	12,864	37.4	-	26,130	34.5	26,213	34.6	0.1
Three Persons	5,321	15.5	5,359	15.6	0.1	11,955	15.8	11,979	15.8	-
Four Persons	4,802	14.0	4,812	14.0	-	10,185	13.5	10,205	13.4	(0.1)
Five or More Persons	2,839	8.3	2,845	8.3	-	7,423	9.8	7,438	9.8	-
Total	34,228	100.0	34,389	100.0	-	75,651	100.0	75,832	100.0	-

		,	Walworth County	′			V	/ashington Coun	ty	
	2010 Federal Census		Household Survey			2010 Federal Census		Househo	ld Survey	
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Household Size	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
One Person	10,554	26.6	10,581	26.6	-	11,839	22.9	11,908	23.0	0.1
Two Persons	14,008	35.3	14,044	35.4	0.1	19,195	37.2	19,222	37.1	(0.1)
Three Persons	6,068	15.3	6,083	15.3	-	8,336	16.2	8,341	16.1	(0.1)
Four Persons	5,090	12.8	5,018	12.6	(0.2)	7,719	15.0	7,748	15.0	-
Five or More Persons	3,979	10.0	3,989	10.1	0.1	4,516	8.7	4,533	8.8	0.1
Total	39,699	100.0	39,715	100.0	-	51,605	100.0	51,752	100.0	-

		\	Vaukesha County	у				Region		
	2010 Federal Census		Household Survey			2010 Federal Census		Househo	ld Survey	
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Household Size	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
One Person	36,286	23.8	36,366	23.7	(0.1)	232,817	29.1	233,361	29.1	-
Two Persons	56,297	36.9	56,464	36.9	-	265,216	33.2	265,858	33.2	-
Three Persons	24,083	15.8	24,152	15.8	-	123,453	15.4	123,750	15.4	-
Four Persons	22,846	14.9	22,996	15.0	0.1	102,655	12.8	102,904	12.8	-
Five or More Persons	13,151	8.6	13,189	8.6	-	75,946	9.5	76,127	9.5	-
Total	152,663	100.0	153,167	100.0	-	800,087	100.0	802,000	100.0	-

Source: U.S. Bureau of the Census and SEWRPC

COMPARISON OF THE ESTIMATED NUMBER OF VEHICLES AVAILABLE IN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2006-2010 CENSUS TRANSPORTATION PLANNING PACKAGE (CTPP) AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

Table B-2

	2006-2010 CTPP		Househo	ld Survey		
	Number of	Percent of	Number of	Percent of	Incremental	Difference in
County	Vehicles	Total	Vehicles	Total	Difference	Percent
Kenosha	114,600	8.5	118,456	8.6	3,856.0	0.1
Milwaukee	553,250	40.8	556,404	40.6	3,154.0	(0.2)
Ozaukee	66,765	4.9	69,221	5.0	2,456.0	0.1
Racine	135,560	10.0	140,145	10.2	4,585.0	0.2
Walworth	77,300	5.7	78,072	5.7	772.0	-
Washington	104,245	7.7	109,253	8.0	5,008.0	0.3
Waukesha	303,585	22.4	300,359	21.9	(3,226.0)	(0.5)
Region	1,355,305	100.0	1,371,910	100.0	16,605.0	-

	2011 Estimate Based on Vehicle Registrations		Househo	ld Survey	Differ	ence
	Number of Percent of		Number of	Percent of		
County	Vehicles	Total	Vehicles	Total	Increment	Percent
Kenosha	120,050	8.7	118,456	8.6	(1,594.0)	(1.3)
Milwaukee	544,540	39.5	556,404	40.6	11,864.0	2.2
Ozaukee	70,280	5.1	69,221	5.0	(1,059.0)	(1.5)
Racine	146,840	10.7	140,145	10.2	(6,695.0)	(4.6)
Walworth	84,230	6.1	78,072	5.7	(6,158.0)	(7.3)
Washington	105,420	7.6	109,253	8.0	3,833.0	3.6
Waukesha	307,310	22.3	300,359	21.9	(6,951.0)	(2.3)
Region	1,378,670	100.0	1,371,910	100.0	(6,760.0)	(0.5)

Source: 2006 - 2010 Census Transportation Planning Package, Wisconsin Department of Transportation, and SEWRPC.

Table B-3

COMPARISON OF THE DISTRIBUTION OF HOUSEHOLDS BY VEHICLE AVAILABILITY IN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2006-2010 CENSUS TRANSPORTATION PLANNING PACKAGE (CTPP) AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

			Kenosha County	•			N	/lilwaukee Count	ty	
	2006-2010 CTPP		Household Survey			2006-2010 CTPP		Househo	ld Survey	
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Vehicle Availability	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
No Vehicles	4,285	6.7	3,828	6.1	(0.6)	51,500	13.6	51,052	13.3	(0.3)
One Vehicle	21,109	33.2	19,943	31.8	(1.4)	164,488	43.4	163,493	42.5	(0.9)
Two Vehicles	25,807	40.6	26,179	41.7	1.1	125,798	33.2	130,867	34.0	0.8
Three Vehicles	8,170	12.9	8,428	13.4	0.5	28,080	7.4	29,470	7.7	0.3
Four or More Vehicles	4,194	6.6	4,384	7.0	0.4	9,010	2.4	9,501	2.5	0.1
Total	63,565	100.0	62,762	100.0	-	378,876	100.0	384,383	100.0	-

			Ozaukee County	,		Racine County					
	2006-2010 CTPP		Household Survey			2006-2010 CTPP		Househo	ld Survey		
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in	
Vehicle Availability	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent	
No Vehicles	723	2.1	712	2.1	-	6,582	8.8	5,052	6.7	(2.1)	
One Vehicle	10,127	29.8	9,911	28.8	(1.0)	25,725	34.4	24,528	32.3	(2.1)	
Two Vehicles	16,597	48.7	16,924	49.2	0.5	28,519	38.2	30,650	40.5	2.3	
Three Vehicles	5,296	15.6	5,515	16.0	0.4	9,386	12.5	10,574	13.9	1.4	
Four or More Vehicles	1,284	3.8	1,327	3.9	0.1	4,596	6.1	5,028	6.6	0.5	
Total	34,027	100.0	34,389	100.0	-	74,808	100.0	75,832	100.0	-	

		,	Walworth County	/		Washington County					
	2006-2010 CTPP		Household Survey			2006-2010 CTPP		Househo	ld Survey		
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in	
Vehicle Availability	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent	
No Vehicles	2,000	5.1	2,351	5.9	0.8	2,573	5.0	1,816	3.5	(1.5)	
One Vehicle	10,163	26.0	11,293	28.4	2.4	12,646	24.7	12,690	24.5	(0.2)	
Two Vehicles	16,647	42.6	16,383	41.3	(1.3)	21,899	42.7	22,450	43.4	0.7	
Three Vehicles	7,487	19.1	6,941	17.5	(1.6)	10,180	19.9	10,709	20.7	0.8	
Four or More	2.811	7.2	2.747	6.9	(0.3)	3.930	7.7	4.087	7.9	0.2	
Vehicles	2,011	1.2	2,747	6.9	(0.3)	3,930	7.7	4,067	7.9	0.2	
Total	39,108	100.0	39,715	100.0	-	51,228	100.0	51,752	100.0	-	

		V	Vaukesha Count	у				Region		
	2006-2010 CTPP		Household Survey			2006-201	I0 CTPP	Househo	ld Survey	
	Number of	Percent	Number of	Percent	Difference in	Number of	Percent	Number of	Percent	Difference in
Vehicle Availability	Households	Distribution	Households	Distribution	Percent	Households	Distribution	Households	Distribution	Percent
No Vehicles	7,422	4.9	7,039	4.6	(0.3)	75,085	9.5	71,850	9.0	(0.5)
One Vehicle	40,396	26.7	41,316	27.0	0.3	284,654	35.9	283,174	35.3	(0.6)
Two Vehicles	69,215	45.9	70,183	45.8	(0.1)	304,482	38.4	313,636	39.1	0.7
Three Vehicles	24,087	15.9	24,454	16.0	0.1	92,686	11.7	96,091	12.0	0.3
Four or More	9.993	6.6	10.175	6.6		35.818	4.5	37.249	4.6	0.1
Vehicles	9,993	0.0	10,175	0.0	•	33,616	4.5	31,249	4.0	0.1
Total	151,113	100.0	153,167	100.0	-	792,725	100.0	802,000	100.0	-

Source: 2006 - 2010 Census Transportation Planning Package and SEWRPC

Table B-4

COMPARISON OF THE DISTRIBUTION OF THE PERCENTAGE OF HOUSEHOLDS BY INCOME WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2006-2010 CENSUS TRANSPORTATION PLANNING PACKAGE (CTPP) AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

		Kenosha County	1	N	lilwaukee Count	у
Household Income	2006-2010	Household	Difference in	2006-2010	Household	Difference in
(in dollars)	CTPP	Survey	Percent	CTPP	Survey	Percent
Under 19,999	5.1	8.9	3.8	8.8	11.8	3.0
20,000 to 39,999	13.7	22.1	8.4	18.4	18.8	0.4
40,000 to 49,999	9.1	8.8	(0.3)	9.9	10.9	1.0
50,000 to 74,999	20.6	19.7	(0.9)	22.2	25.0	2.8
75,000 to 99,999	19.3	18.5	(0.8)	16.6	14.5	(2.1)
100,000 or Over	32.2	22.0	(10.2)	24.1	19.0	(5.1)
Total	100.0	100.0	-	100.0	100.0	-

		Ozaukee County	y	Racine County				
Household Income	2006-2010	Household	Difference in	2006-2010	Household	Difference in		
(in dollars)	CTPP	Survey	Percent	CTPP	Survey	Percent		
Under 19,999	2.1	11.9	9.8	4.6	11.4	6.8		
20,000 to 39,999	9.2	22.6	13.4	14.5	18.1	3.6		
40,000 to 49,999	5.8	9.5	3.7	7.0	11.1	4.1		
50,000 to 74,999	17.5	21.5	4.0	23.4	23.7	0.3		
75,000 to 99,999	20.7	13.6	(7.1)	19.4	14.9	(4.5)		
100,000 or Over	44.7	20.9	(23.8)	31.1	20.8	(10.3)		
Total	100.0	100.0	-	100.0	100.0	-		

	1	Walworth Count	у	Washington County			
Household Income	2006-2010	Household	Difference in	2006-2010	Household	Difference in	
(in dollars)	CTPP	Survey	Percent	CTPP	Survey	Percent	
Under 19,000	5.4	11.4	6.0	2.6	9.6	7.0	
20,000 to 39,999	14.0	20.8	6.8	9.7	20.9	11.2	
40,000 to 49,999	8.4	11.0	2.6	6.9	13.6	6.7	
50,000 to 74,999	25.6	25.5	(0.1)	21.8	22.2	0.4	
75,000 to 99,999	20.0	14.3	(5.7)	22.8	14.8	(8.0)	
100,000 or Over	26.6	17.0	(9.6)	36.2	18.9	(17.3)	
Total	100.0	100.0	-	100.0	100.0	-	

	V	Vaukesha Count	ty	Region			
Household Income	2006-2010	Household	Difference in	2006-2010	Household	Difference in	
(in dollars)	CTPP	Survey	Percent	CTPP	Survey	Percent	
Under 19,999	2.2	10.5	8.3	5.8	11.1	5.3	
20,000 to 39,999	7.4	19.2	11.8	14.1	19.5	5.4	
40,000 to 49,999	5.6	10.7	5.1	8.2	10.8	2.6	
50,000 to 74,999	17.2	22.5	5.3	21.1	23.7	2.6	
75,000 to 99,999	20.1	16.2	(3.9)	18.6	15.1	(3.5)	
100,000 or Over	47.5	20.9	(26.6)	32.2	19.8	(12.4)	
Total	100.0	100.0	-	100.0	100.0	-	

Source: 2006 - 2010 Census Transportation Planning Package and SEWRPC

Table B-5

COMPARISON OF THE DISTRIBUTION OF HOUSEHOLDS BY LIFESTYLE WITHIN THE SOUTHEASTERN REGION FROM THE 2010 FEDERAL CENSUS AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

			Kenosha County	/		Milwaukee County					
	2010 Fede	ral Census	Household Survey			2010 Fede	2010 Federal Census		ld Survey		
Age of Head of		Percent		Percent	Difference in		Percent		Percent	Difference in	
Household	Number	Distribution	Number	Distribution	Percent	Number	Distribution	Number	Distribution	Percent	
65 or Older	12,208	19.5	11,658	18.6	(0.9)	74,402	19.4	68,329	17.8	(1.6)	
Under 65											
without Children	28,834	46.0	29,639	47.2	1.2	193,543	50.5	212,416	55.2	4.7	
with Children	21,608	34.5	21,465	34.2	(0.3)	115,646	30.1	103,638	27.0	(3.1)	
Total	62,650	100.0	62,762	100.0	-	383,591	100.0	384,383	100.0	-	

			Ozaukee County	/		Racine County					
	2010 Fede	ral Census	Househo	Household Survey		2010 Federal Census		Househo	ld Survey		
Age of Head of		Percent		Percent	Difference in		Percent		Percent	Difference in	
Household	Number	Distribution	Number	Distribution	Percent	Number	Distribution	Number	Distribution	Percent	
65 or Older	8,559	25.0	8,290	24.1	(0.9)	16,953	22.4	15,688	20.7	(1.7)	
Under 65											
without Children	15,121	44.2	15,682	45.6	1.4	34,456	45.6	35,844	47.3	1.7	
with Children	10,548	30.8	10,417	30.3	(0.5)	24,242	32.0	24,300	32.0	-	
Total	34,228	100.0	34,389	100.0	-	75,651	100.0	75,832	100.0	-	

		1	Walworth County	у		Washington County					
	2010 Fede	ral Census	Househo	Household Survey		2010 Federal Census		Household Survey			
Age of Head of		Percent		Percent	Difference in		Percent		Percent	Difference in	
Household	Number	Distribution	Number	Distribution	Percent	Number	Distribution	Number	Distribution	Percent	
65 or Older	8,981	22.6	9,208	23.2	0.6	11,377	22.0	11,314	21.9	(0.1)	
Under 65											
without Children	18,707	47.1	18,643	46.9	(0.2)	23,420	45.4	24,014	46.4	1.0	
with Children	12,011	30.3	11,864	29.9	(0.4)	16,808	32.6	16,424	31.7	(0.9)	
Total	39,699	100.0	39,715	100.0	-	51,605	100.0	51,752	100.0	-	

		V	Vaukesha Count	ty		Region					
	2010 Fede	0 Federal Census Household Survey			2010 Federal Census		Household Survey				
Age of Head of		Percent		Percent	Difference in		Percent		Percent	Difference in	
Household	Number	Distribution	Number	Distribution	Percent	Number	Distribution	Number	Distribution	Percent	
65 or Older	36,142	23.7	36,146	23.6	(0.1)	168,622	21.1	160,633	20.0	(1.1)	
Under 65											
without Children	68,092	44.6	67,193	43.9	(0.7)	382,173	47.8	403,431	50.3	2.5	
with Children	48,429	31.7	49,828	32.5	0.8	249,292	31.1	237,936	29.7	(1.4)	
Total	152,663	100.0	153,167	100.0	-	800,087	100.0	802,000	100.0	-	

Source: U.S. Bureau of the Census and SEWRPC.

Table B-6

COMPARISON OF THE DISTRIBUTION OF POPULATION BY AGE GROUP WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2010 FEDERAL CENSUS AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

	2010 Fede	ral Census	2011 Resider Sur		Difference in
Age Group	Number	Percent	Number	Percent	Percent
Under 5 years	133,503	6.6	156,270	7.8	1.2
5 to 9 years	137,010	6.8	138,254	6.9	0.1
10 to 14 years	140,118	6.9	141,294	7.0	0.1
15 to 17 years	87,644	4.3	87,652	4.4	0.1
18 and 19 years	57,282	2.8	47,080	2.3	(0.5)
20 years	28,168	1.4	21,600	1.1	(0.3)
21 years	27,476	1.4	22,563	1.1	(0.3)
22 to 24 years	81,951	4.1	80,221	4.0	(0.1)
25 to 29 years	137,321	6.8	136,433	6.8	-
30 to 34 years	128,174	6.3	127,601	6.3	-
35 to 39 years	125,851	6.2	125,641	6.2	-
40 to 44 years	136,456	6.8	136,229	6.8	-
45 to 49 years	153,577	7.6	153,340	7.6	-
50 to 54 years	153,402	7.6	153,326	7.6	-
55 to 59 years	132,272	6.5	132,335	6.6	0.1
60 and 61 years	46,132	2.3	46,134	2.3	-
62 to 64 years	59,626	3.0	59,665	3.0	-
65 and 66 years	31,045	1.5	31,033	1.5	-
67 to 69 years	41,577	2.1	41,519	2.1	-
70 to 74 years	54,925	2.7	54,620	2.7	-
75 to 79 years	46,609	2.3	45,731	2.3	-
80 to 84 years	39,940	2.0	38,193	1.9	(0.1)
85 years and older	39,911	2.0	34,544	1.7	(0.3)
Total	2,019,970	100.0	2,011,278	100.0	

Source: U.S. Bureau of the Census and SEWRPC.

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Table B-7

COMPARISON OF THE DISTRIBUTION OF POPULATION FIVE YEARS OF AGE OR OLDER BY GENDER WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2010 FEDERAL CENSUS AND THE 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

		I	Kenosha County	/			N	filwaukee Coun	ty	
	2010 Federal Census Household Survey			2010 Federal Census		Household Survey				
		Percent		Percent	Difference in		Percent		Percent	Difference in
Gender	Population	Distribution	Population	Distribution	Percent	Population	Distribution	Population	Distribution	Percent
Male	76,861	49.5	74,546	49.2	(0.3)	422,425	48.1	413,540	47.9	(0.2)
Female	78,570	50.5	76,901	50.8	0.3	455,946	51.9	450,168	52.1	0.2
Total	155,431	100.0	151,446	100.0	-	878,371	100.0	863,708	100.0	-

		(Ozaukee Count	У				Racine County	•	
	2010 Federal Census Household Survey				2010 Fede	ral Census	Househo	ld Survey		
		Percent		Percent	Difference in		Percent		Percent	Difference in
Gender	Population	Distribution	Population	Distribution	Percent	Population	Distribution	Population	Distribution	Percent
Male	39,994	48.9	39,509	49.0	0.1	90,251	49.4	86,536	48.6	(0.8)
Female	41,853	51.1	41,051	51.0	(0.1)	92,410	50.6	91,506	51.4	0.8
Total	81,847	100.0	80,561	100.0	-	182,661	100.0	178,039	100.0	-

		\	Valworth Count	у			W	ashington Coun	ity	
	2010 Federal Census Household Surv		ld Survey		2010 Federal Census		Household Survey			
		Percent		Percent	Difference in		Percent		Percent	Difference in
Gender	Population	Distribution	Population	Distribution	Percent	Population	Distribution	Population	Distribution	Percent
Male	48,069	50.1	47,512	50.8	0.7	61,260	49.5	60,780	49.4	(0.1)
Female	47,963	49.9	46,070	49.2	(0.7)	62,448	50.5	62,271	50.6	0.1
Total	96,032	100.0	93,581	100.0	-	123,708	100.0	123,052	100.0	-

		V	/aukesha Count	ty				Region		
	2010 Federal Census Hou		Househo	Household Survey		2010 Federal Census		Household Survey		
		Percent		Percent	Difference in		Percent		Percent	Difference in
Gender	Population	Distribution	Population	Distribution	Percent	Population	Distribution	Population	Distribution	Percent
Male	180,487	49.0	178,933	49.1	0.1	919,347	48.7	901,356	48.6	(0.1)
Female	187,930	51.0	185,685	50.9	(0.1)	967,120	51.3	953,652	51.4	0.1
Total	368,417	100.0	364,620	100.0	-	1,886,467	100.0	1,855,008	100.0	-

Source: U.S. Bureau of the Census and SEWRPC.

Table B-8

COMPARISON OF EMPLOYMENT STATUS FROM THE 2011 LOCAL AREA UNEMPLOYMENT STATISTICS (LAUS)

AND THE 2011 RESIDENT HOUSEHOLD SURVEY

			Employment Status		
	LA	US	Househo	ld Survey	
					Difference in
County	Employed Persons	Percent Distribution	Employed Persons	Percent Distribution	Percent
Kenosha	78,800	8.3	76,600	7.9	(0.4)
Milwaukee	420,900	44.1	428,700	44.4	0.3
Ozaukee	44,200	4.6	44,100	4.6	-
Racine	88,600	9.3	92,100	9.5	0.2
Walworth	51,000	5.3	50,300	5.2	(0.1)
Washington	69,300	7.3	71,700	7.4	0.1
Waukesha	201,100	21.1	202,300	21.0	(0.1)
Region	953,900	100.0	965,800	100.0	-

Source: U.S. Bureau of Labor Statistics and SEWRPC.

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Table B-9

COMPARISON OF SOUTHEASTERN WISCONSIN TRUCK REGISTRATIONS AND TRUCK AVAILABILITY AS

DETERMINED BY THE 2011 TRUCK TRAVEL SURVEY

	2011 Truck Registrations		2011 Truc	ck Survey	Difference	
		Percent		Percent		
Truck Classification	Number	Distribution	Number	Distribution	Number	Percent
Light	71,400	60.1	67,300	55.3	(4,100)	(5.7)
Medium and Heavy	36,700	30.9	43,600	35.9	6,900	18.8
Municipal	10,700	9.0	10,700	8.8	-	-
Total	118,800	100.0	121,600	100.0	2,800	2.4

Source: Wisconsin Department of Transportation and SEWRPC.

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Table B-10

COMPARISON OF MODE SHARE FOR TRAVEL TO WORK WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2009-2011 AMERICAN COMMUNITY SURVEY (ACS) AND 2011 TRAVEL SURVEY

	Kenosha County			Milwaukee County			
		Household	Difference in		Household	Difference in	
Mode	2009-2011 ACS	Survey	Percent	2009-2011 ACS	Survey	Percent	
Drive Alone	86.1	87.7	1.6	77.4	79.2	1.8	
Carpool	9.1	5.8	(3.3)	11.3	6.5	(4.8)	
Public Transit	1.5	1.3	(0.2)	6.0	5.3	(0.7)	
Taxi/Motorcycle	1.1	0.8	(0.3)	0.8	0.5	(0.3)	
Bicycle/Walk	2.2	4.4	2.2	4.5	8.5	4.0	
Total	100.0	100.0	-	100.0	100.0	-	

	Ozaukee County			Racine County			
		Household	Difference in		Household	Difference in	
Mode	2009-2011 ACS	Survey	Percent	2009-2011 ACS	Survey	Percent	
Drive Alone	88.2	92.4	4.2	86.9	91.2	4.3	
Carpool	8.0	4.4	(3.6)	8.8	4.5	(4.3)	
Public Transit	0.5	0.8	0.3	1.5	0.9	(0.6)	
Taxi/Motorcycle	0.6	0.3	(0.3)	1.0	0.3	(0.7)	
Bicycle/Walk	2.7	2.1	(0.6)	1.8	3.1	1.3	
Total	100.0	100.0	-	100.0	100.0	-	

	Walworth County			Washington County			
		Household	Difference in		Household	Difference in	
Mode	2009-2011 ACS	Survey	Percent	2009-2011 ACS	Survey	Percent	
Drive Alone	83.1	93.6	10.5	89.2	93.4	4.2	
Carpool	10.2	3.4	(6.8)	8.0	2.7	(5.3)	
Public Transit	0.7	0.2	(0.5)	0.5	0.5	-	
Taxi/Motorcycle	1.3	1.3	-	0.9	1.7	0.8	
Bicycle/Walk	4.7	1.5	(3.2)	1.4	1.7	0.3	
Total	100.0	100.0	•	100.0	100.0	-	

	Waukesha County			Region			
		Household	Difference in		Household	Difference in	
Mode	2009-2011 ACS	Survey	Percent	2009-2011 ACS	Survey	Percent	
Drive Alone	90.2	95.0	4.8	83.2	86.9	3.7	
Carpool	7.0	2.6	(4.4)	9.6	4.9	(4.7)	
Public Transit	0.7	0.2	(0.5)	3.2	2.6	(0.6)	
Taxi/Motorcycle	0.6	0.9	0.3	0.8	0.7	(0.1)	
Bicycle/Walk	1.5	1.3	(0.2)	3.2	4.9	1.7	
Total	100.0	100.0	-	100.0	100.0	-	

Source: 2009-2011 American Community Survey and SEWRPC.

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Table B-11

COMPARISON OF THE DISTRIBUTION OF THE PERCENTAGE OF COUNTY TO COUNTY WORK TRAVEL WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM THE 2006-2010 CENSUS TRANSPORTATION PLANNING PACKAGE AND 2011 RESIDENT HOUSEHOLD TRAVEL SURVEY

				Cou	nty of Employm	nent			
Cou	unty of Residence	Kenosha	Milwaukee	Ozaukee	Racine	Walworth	Washington	Waukesha	Total
Kenosha	2006-2010 CTPP	76.25	5.90	0.16	14.05	1.79	0.03	1.82	100.00
	Household Survey	75.66	4.94	-	13.56	4.16	0.07	1.61	100.00
	Difference in Percent	(0.59)	(0.96)	(0.16)	(0.49)	2.37	0.04	(0.21)	-
Milwaukee	2006-2010 CTPP	0.41	82.08	1.83	1.12	0.18	1.02	13.36	100.00
	Household Survey	0.59	77.03	2.45	3.23	0.38	2.09	14.23	100.00
	Difference in Percent	0.18	(5.05)	0.62	2.11	0.20	1.07	0.87	-
Ozaukee	2006-2010 CTPP	0.14	34.52	52.93	0.21	0.08	4.59	7.53	100.00
	Household Survey	0.13	33.74	48.21	0.20	0.05	10.78	6.89	100.00
	Difference in Percent	(0.01)	(0.78)	(4.72)	(0.01)	(0.03)	6.19	(0.64)	-
Racine	2006-2010 CTPP	7.63	17.38	0.13	67.64	1.77	0.15	5.30	100.00
	Household Survey	8.65	17.34	0.09	66.78	1.97	0.11	5.06	100.00
	Difference in Percent	1.02	(0.04)	(0.04)	(0.86)	0.20	(0.04)	(0.24)	-
Walworth	2006-2010 CTPP	2.91	6.50	0.12	5.06	76.03	0.22	9.16	100.00
	Household Survey	5.01	5.77	-	4.32	78.71	-	6.19	100.00
	Difference in Percent	2.10	(0.73)	(0.12)	(0.74)	2.68	(0.22)	(2.97)	-
Washington	2006-2010 CTPP	0.10	21.37	6.99	0.33	0.02	51.52	19.67	100.00
	Household Survey	0.10	17.56	6.06	0.05	-	60.29	15.94	100.00
	Difference in Percent	-	(3.81)	(0.93)	(0.28)	(0.02)	8.77	(3.73)	-
Waukesha	2006-2010 CTPP	0.28	31.59	0.83	1.07	0.64	1.80	63.79	100.00
	Household Survey	0.31	31.23	1.11	1.81	0.97	4.06	60.51	100.00
	Difference in Percent	0.03	(0.36)	0.28	0.74	0.33	2.26	(3.28)	-

Source: 2006 - 2010 Census Transportation Planning Package and SEWRPC.

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COMPARISON OF ESTIMATED AVERAGE WEEKDAY TRAFFIC VOLUMES CROSSING THE SOUTHEASTERN WISCONSIN REGION BOUNDARY IN 2011 FROM TRAFFIC COUNTS AND FROM THE

TRAVEL SURVEY

Table B-12

Region Boundary	Total Vehicle Traffic						
Cordon Line	Estimated Average We	Difference in	Percent				
Segment	Traffic Counts	Travel Survey Data	Volumes	Difference			
Northern	46,700	51,000	4,300	9.2			
Western	160,100	164,600	4,500	2.8			
Southern	178,500	165,700	(12,800)	(7.2)			
Total	385,300	381,300	(4,000)	(1.0)			

Source: Wisconsin Department of Transportation and SEWRPC.

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Table B-13

COMPARISON OF ESTIMATED YEAR 2011 AVERAGE WEEKDAY VEHICULAR TRAFFIC CROSSING THE KENOSHA, MILWAUKEE, AND RACINE SCREENLINES FROM TRAFFIC COUNTS AND FROM THE TRAVEL

		Total Vehicle Traffic							
	Estimated Average We	ekday Traffic Volumes	Difference in Volumes	Percent Difference					
Screenline	Traffic Counts Travel Survey Data		Dillerence in volumes	Fercent Dinerence					
Kenosha	227,900	198,800	(29,100)	(12.8)					
Milwaukee	957,300	959,400	2,100	0.2					
Racine	215,200	212,200	(3,000)	(1.4)					

Source: SEWPRC.

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COMPARISON OF THE ESTIMATED YEAR 2011 AVERAGE WEEKDAY ARTERIAL VEHICLE MILES
OF TRAVEL WITHIN THE SOUTHEASTERN WISCONSIN REGION FROM TRAFFIC COUNTS AND
FROM THE TRAVEL SURVEY

Table B-14

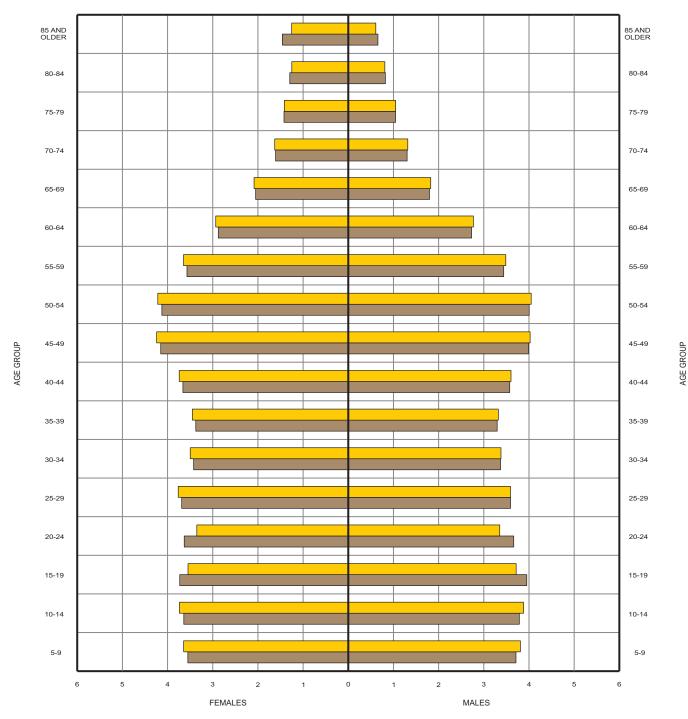
	Estimated Average Weekday Vehicle Miles of Travel from Traffic Counts	Simulated Average Weekday Vehicle Miles of Travel from Travel Survey Data	Differ	rence
County	(in Thousands)	(in Thousands)	Number	Percent
Kenosha	3,497	3,235	(262)	(7.5)
Milwaukee	16,210	14,035	(2,175)	(13.4)
Ozaukee	2,378	2,482	104	4.4
Racine	3,468	3,917	449	12.9
Walworth	2,452	2,726	274	11.2
Washington	3,442	3,771	329	9.6
Waukesha	9,415	9,938	523	5.6
Region	40,862	40,104	(758)	(1.9)

Source: Wisconsin Department of Transportation and SEWRPC.

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Figure B-1

COMPARISON OF AGE AND GENDER COMPOSITION OF THE POPULATION AGES FIVE AND OLDER IN THE REGION FROM THE 2010 FEDERAL CENSUS AND THE 2011 RESIDENT HOUSEHOLD SURVEY



PERCENT OF TOTAL POPULATION AGES FIVE AND OLDER

2011 RESIDENT HOUSEHOLD SURVEY
2010 FEDERAL CENSUS
Source: U.S. Census Bureau and SEWPRC

MAP B-1
TRAVEL INVENTORY CORDON LINE AND SCREENLINE FOR ACCURACY CHECKS

