

# Glossary

## *Training Materials* Analyst

### **% (Percent) Change**

The percentage change in a given data point (jobs, population, etc.) over the timeframe selected by the user in the "timeframe" control.

### **Age Demographics**

A demographic breakdown, by age, of individuals working in an occupation or industry. For occupations, available by county for all 5-digit SOCs. For industries, available by county for all 6-digit NAICS. Source: For occupations, a combination of detailed Industry Demographics, staffing patterns, and American Community Survey. For industries, EMSI's proprietary employment data, incorporating Census' Quarterly Workforce Indicators and American Community Survey.

### **Annual Openings Estimate**

Estimated employment change and turnover for an occupation for a given year. The number is calculated thus: the sum of new and replacement jobs in an occupation over the entire selected timeframe, divided by the number of years in the timeframe. New jobs are defined as openings due to growth. Replacement jobs are openings due to attrition. This is EMSI's estimate of labor market demand for an occupation, and when combined with Related Completions gives a picture of the supply and demand for the occupation in the region. Source: EMSI's proprietary employment data, combined with occupation-specific percentages from the U.S. Bureau of Labor Statistics Employment Projections program.

## **Average Annual Wage (Industry)**

The result of total industry earnings divided by same-year industry employment. Earnings are defined as labor-related personal income—that is, income from work. Income from stock dividends or interest, rents, Social Security and other non-work sources are not included. Source: EMSI's proprietary employment data.

## **Average Earnings**

The total industry earnings for a region divided by number of jobs. Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Source: Bureau of Labor Statistics and the Bureau of Economic Analysis. If using only QCEW and/or non-QCEW in Class of Worker settings, this figure shows only wage and salary.

## **Average Hourly Earnings (Occupation)**

The average hourly earnings for occupations, not including benefits. Occupations have hourly earnings for five percentiles (10th, 25th, 50th [median], 75th, and 90th) as well as the average. Some occupations in our source data have only “annual“ earnings published rather than hourly; for these we still show hourly earnings by dividing the annual figure by 2,080 hours. Source: EMSI's proprietary employment data, relying heavily on occupational earnings reported in OES.

## **Base Institution Completions**

Completions for the user's base institution, which can be modified in the "Account" section. Source: IPEDS.

## **Change**

The net increase/decrease in regional jobs in an industry or occupation or demographic over the selected timeframe.

## **Change by Demographic (I/O)**

The change in jobs modeled through demographics for males, females, and eight age cohorts. This table shows the ripple effect of the initial industry change through these demographic groups. This is a result of the Social Accounting Matrix (SAM) model. Source: We show the effects of industry change on demographics using a variety of

data, including the U.S. Census Bureau's American Community Survey (ACS) and the U.S. Census Bureau's Quarterly Workforce Indicators (QWI) from Local Employment Dynamics (LED).

### **Change by Industry (I/O)**

The change in jobs modeled through all two-digit industry sectors. This table shows the ripple effect of the initial industry change through all affected industries. For further detail (including job changes in all NAICS code digit-levels), see below the table. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA) and the Bureau of Labor Statistics' (BLS) Quarterly Census of Employment and Wages (QCEW).

### **Change by Occupation (I/O)**

The change in jobs modeled through all two-digit occupation sectors. This table shows the ripple effect of the initial industry change through all affected occupations. This is a result of the Social Accounting Matrix (SAM) model. We accomplish this move from industry to occupation using regional earnings staffing patterns. For further detail (including job changes in all SOC code digit-levels), see below the table. Source: EMSI's model, incorporating data from the Bureau of Labor Statistics' (BLS) Quarterly Census of Employment and Wages (QCEW).

### **Change in Earnings (I/O)**

This number represents total change in earnings resulting from the initial, user-made change. This figure includes the initial change. The change in earnings figure is dependent upon the multiplier listed below. Source: EMSI data based primarily on the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA).

### **Change in Jobs (I/O)**

The total number of jobs changed, including the initial change. The figure is dependent upon the multiplier listed below. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Choropleth**

A GIS data layer style (visualization method) that fills regions with a darker or lighter color shade based on numeric data. It is generally ideal for ratios and percentages, but generally not recommended for absolute numeric values.

## **CIP (Classification of Instructional Programs)**

A standard numerical code for a post-secondary course of study, developed and defined by the U.S. Department of Education's National Center for Education Statistics. *See* <http://nces.ed.gov/pubs2002/cip2000/>

## **Class of Worker (CoW)**

The four classes of data you can choose from in Analyst. They are QCEW, non-QCEW, Self-Employed, and Extended Proprietors. These categories provide clearer distinctions between types of workers, allowing you to find exactly what you need. You can choose from any combination of these data categories, but we recommend several groupings particularly: QCEW by itself, QCEW+non-QCEW, QCEW+non-QCEW+Self-Employed, or QCEW+non-QCEW+Self-Employed+Extended Proprietors. The easiest way of making the decision about which set to use is this: if you've previously used Covered data in Analyst, you should use QCEW+non-QCEW. If you've previously used Complete, you should use QCEW+non-QCEW+Self-Employed+Extended Proprietors. If you have no idea what you used previously, your best bet is probably to use QCEW+non-QCEW. *See also* QCEW Employees *and* non-QCEW Employees *and* Self-Employed *and* Extended Proprietors.

## **Cohort**

A specific age group (which may also include gender or race/ethnicity) in demographic data, e.g., "male African Americans born between 1980 and 1984." Over time, this cohort will move through various standard Census age categories such as "25 to 29 year olds" and "30 to 34 year olds."

## **Compatibility Index**

*See* Occupational Compatibility Index.

## **Competency**

A specific area of knowledge, skills, or abilities in the O\*NET framework. For example, a competency may be academic (mathematical knowledge), practical (mathematical problem-solving skills), or physical/cognitive (number facility, mathematical reasoning).

## **Competitive Effect**

In shift share analysis this reflects the regional growth that cannot be explained by either overall or industry/occupation-specific trends. See also Shift Share.

**Completions** The number of students who completed a specific course of study in a given year. Includes all award levels. Source: NCES, IPEDS.

## **Current Job Postings**

The number of job openings currently posted online for this occupation, according to Indeed.com. Indeed is an online job posting aggregator, and this number is complementary to, but likely to differ significantly from, the Annual Openings Estimate EMSI provides for this occupation. Source: Indeed.com.

## **Current Year**

It can be difficult to get a handle on the idea of “current year” in Analyst. Your calendar says 2011 or 2013 or 2033, but the current year you’re living in may not correspond to the current year of data in the tool. Some of our central data sources are collected and then released after a time, and therefore lag. That means that when we move from 2013 into 2014, we don’t immediately have data for 2014. For a long while the current year is a projection, based on past data. We get pieces of that year of data over time, and bring them into the set as updates allow. In fact, a year of data usually isn’t considered “confirmed” until about halfway through the following year. However, we have additional sets that allow us to make informed estimates ahead of that half-year timeline. To a great extent, this lets us have our cake and eat it too; EMSI data remains both fresh and reliable.

## **Direct Effect (I/O)**

The effect of new input purchases by the initially changed industries. This is the first round of impacts (see "Indirect"). This change is due to inter-industry effects. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Dot Density**

A GIS data layer style (visualization method) that assigns a numeric value to a single dot and distributes dots randomly over an area to provide an indication of the “density” of that data type in the area. The exact dot locations have no meaning; only the “density” or number of total dots in an area has meaning. It is ideal for absolute numeric values.

## **Earnings Multiplier (I/O)**

The total earnings created in a region as a result of a single dollar of new earnings. This number includes the yield and the initial dollar addition. In other words, an earnings multiplier of 1.82 is made up of the initial dollar added (1.0) and the further yield (0.82). Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Education Level (5-digit only)**

The most significant source of education or training for an occupation. Combines typical education, experience, and on-the-job training held by workers in this field. Source: Bureau of Labor Statistics.

## **Educational Attainment (O\*NET)**

O\*NET Educational Attainment is a breakdown of the education levels generally required for employment an occupation. These levels may differ from the actual education levels attained by the occupation's workforce which are presented in the SOC Educational Attainment section of Analyst. Source: The O\*NET 15.0 Database, June 2010.

## **Educational Attainment (SOC)**

SOC Educational Attainment is a National breakdown of the education levels attained by the occupation's workforce. These attainment levels will generally exceed the

minimum levels required for the occupation which are presented in the O\*NET Educational Attainment section of Analyst. Source: The Bureau of Labor Statistics' (BLS) Education and Training Measurements for Workers 25 Years and Older by Detailed Occupation, 2008.

## **Educational Programs**

The programs in the region of study that may train for this occupation. EMSI uses a default crosswalk to build these associations; the occupations linked to a program may be edited on its Program Report page. Source: IPEDS, NCES's CIP-SOC Crosswalk with some modifications.

## **Employment**

*See* Jobs.

## **End Year**

In the Timeframe in the toolbar this is the second year you've chosen. If your timeframe is 2008-2013, 2013 is your "end year." *See* Timeframe *and* Start Year.

## **Equifax Activity Indicator**

The activity indicator shows Equifax's confidence with the business record: M = Marketable: confirmed business name, business address and business phone; A = Active: confirmed 2 out of the 3 "marketable" components; O = suspected/confirmed out of business.

## **Establishments**

A single physical location of some type of economic activity (a business), used for reporting purposes in government data sources. A single company may have multiple establishments. Source: QCEW.

## **Ethnicity**

*See* Race and Ethnicity.

## **Expected Change**

In shift share analysis, this is the change expected due to national growth and industry/occupation mix effects. Change above this level is credited to the region's competitive effect. *See also* Shift Share.

## **Exported (I/O)**

This number represents the amount of revenue made through exports. Conversely, this number is revenue less local absorption. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Exports (I/O)**

Money received in the region through through foreign and external domestic sources. This percent of supply shows the amount of total export sales as a percent of total sales. "Export Base Theory" describes how export sales bring new monies to the region, which in turn support resident-serving industries. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Extended Proprietors (Data Category)**

Covers the same job-types as the "Self-Employed" dataset, but these jobs represent miscellaneous labor income for persons who do not consider it a primary job. Includes minor or underreported self-employment, investments trusts and partnerships, certain farms, and tax-exempt nonprofit cooperatives. This dataset is normally only used for Input-Output purposes, since investments and partnerships in particular will be overrepresented in certain sectors. Source: EMSI's proprietary data, combined with BEA and Census datasets.

## **Filter**

In Analyst, our various tables have "filter" capabilities. A filter is a set of one or more column/comparison/value criteria, used to display only specific rows of data in a table. For example, a criterion might be "Total 2007 Jobs greater than or equal to 350", where the column is "Total 2007 Jobs", the comparison method is "greater than or equal to", the value is "350". When applied as a filter, this criterion will show a table with only those rows whose "Total 2007 Jobs" field is greater than or equal to 350. Various criteria in a filter can be combined with AND and OR operators.

## **Gender (Industry)**

A demographic breakdown, by age, of individuals working in this industry. Available by county for all 6-digit NAICS. Source: EMSI's proprietary employment data, incorporating Census' Quarterly Workforce Indicators and American Community Survey.

## **Gender (Occupation)**

A demographic breakdown, by gender, of individuals working in this occupation. Available by county for all 5-digit SOCs. Source: A combination of detailed Industry Demographics, staffing patterns, and American Community Survey.

## **Geographic Information System (GIS)**

A software package that is capable of plotting various types of data on a map.

## **Graduated Symbol**

A GIS data layer style (visualization method) that shows a symbol, often a solid circle, whose size on the map matches the value of a data element. One symbol is shown for each of the lowest-level geographies on the map (e.g. a county or ZIP code). It is ideal for data elements that give totals or other absolute values. *See also* Choropleth *and* Dot Density.

## **Gross Regional Product or GRP (I/O)**

GDP for the region. Measures the final market value of all goods and services produced in a region. Source: EMSI data based primarily on data from the Bureau of Economic Analysis (BEA) and the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS).

## **Growth Effect**

In shift share analysis this reflects the portion of regional growth that can be attributed to the overall growth of the entire national economy. *See also* Shift Share.

## **Growth Period**

*See* Timeframe.

## **Imports (I/O)**

The amount of money leaving the region to foreign and external domestic sources. This percent shows the portion of total demand obtained from goods and services produced by foreign and external domestic industries. "Import Substitution" occurs when locally produced goods and services are substituted for imports, thereby deepening the region's "economic base." Imports plus the "locally produced and consumed" figure equal total demand for a region. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Indirect (I/O)**

The subsequent ripple effect in further supply chains resulting from the direct change. In more awkward terms, this shows the sales change in the supply chains of the supply chain, as a result of the direct change. This is the second round of impacts (see "Direct"). This change is due to inter-industry effects. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Induced (I/O)**

This change is due to the impact of the new earnings created by the initial, direct, and indirect changes. These earnings enter the economy as employees spend their paychecks in the region on food, clothing, and other goods and services. In other words, this figure represents the income effects on inter-industry trade. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Industrial Mix Effect**

*See also* Mix Effect *and* Shift Share.

## **Industry**

A group of businesses that produce similar goods and services, and share similar production processes for creating the goods and services they sell. Industries are classified using NAICS codes. Note that in the NAICS system, what a business produces is given less importance than the process used to create it. *See* NAICS.

## **Industry Requirements**

Derived from EMSI's Input-Output model, this figure describes the purchases a given industry makes from all other industries—an industry's supply chain—and also estimates whether those purchases came from within or without the region of study. Also known as Gap Analysis, this report is an important part of import substitution strategies employed by economic development organizations. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Initial (Earnings)**

This number represents the initial change in earnings as input by the user, and therefore does not include ripple effects. If a user has made the input in terms of earnings, this figure will match exactly what the user entered. If in terms of jobs or sales, this number will represent the conversion to earnings from those other terms.

## **Initial (Jobs)**

This number represents the initial change in jobs as input by the user, and therefore does not include ripple effects. If a user has made the input in terms of jobs, this figure will match exactly what the user entered. If in terms of earnings or sales, this number will represent the conversion to jobs from those other terms.

## **Input-Output Model**

A mathematical representation of the economic relationships among industries in a region, especially with reference to how much each industry purchases from each other industry.

## **Inverse Staffing Patterns**

A table of percentages that shows, on average, how regional occupations are divided up among regional industries. For example, a (simplified) inverse staffing pattern for registered nurses may show that 70% of RNs are employed by hospitals, 10% by local government (i.e., public schools), 10% by nursing homes, and 10% by offices of physicians. Inverse staffing patterns identify the industries currently employing this occupation, including those which are likely to be hiring due to growth or displacing workers due to contraction. *See also* Staffing Pattern. Source: Primarily the national

OES staffing pattern, combined with projections from the National Industry-Occupation Employment Matrix and EMSI's proprietary employment data.

## **IPEDS (Integrated Postsecondary Education Data System)**

A national database of information about post-secondary institutions.

See <http://nces.ed.gov/ipeds/>

## **Jobs Multiplier (I/O)**

The total jobs added to the region as a result of a single job added. This number includes the yield and the initial job addition. In other words, a jobs multiplier of 1.82 is made up of the initial job added (1.0) and the further yield (0.82). Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Jobs**

The total number of full and part-time jobs. Source: EMSI data based primarily on the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA).

## **Locally Produced & Consumed (I/O)**

This figure is essentially local absorption; the goods and services that are both produced locally and consumed locally. Primary data sources are outputs of the EMSI SAM model. Source: Bureau of Economic Analysis (BEA) and the Bureau of Labor Statistics' (BLS) Quarterly Census of Employment and Wages (QCEW).

## **Location Quotient**

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region "unique"; in comparison to the national average. For example, if the leather products manufacturing industry accounts for .02% of jobs in your area but .01% of jobs nationally, then the area's leather-producing industry has an LQ of  $.02 \div .01 = 2.0$  in your area (as compared to the nation). So in your area, leather manufacturing accounts for a larger than average "share" of total jobs—the share is twice as big as normal.

## **Median Earnings**

The hourly earnings, excluding benefits, of a worker in that occupation. By default we display the median, the midpoint of the wage distribution for an occupation: half of the workers make more, half of them make less. Access percentile wages by clicking the link. Source: EMSI's proprietary employment data.

## **Mix Effect**

In shift share analysis, this reflects regional growth that can be attributed to positive trends in the specific industry or occupation at a national level. *See* Shift Share.

## **Multiplier**

A number showing how changes (jobs, earnings, or sales) in one industry will propagate to other industries in a regional economy. For example, a jobs multiplier of 3 for an industry means that a change of 100 jobs in that industry would lead to a total change of  $3 \times 100 = 300$  jobs in the whole economy. Note that this 300 includes the original 100 jobs, meaning the additional change is 200.

## **NAICS (North American Industry Classification System)**

A system of classifying North American industries using six-digit codes.

*See* <http://www.bls.gov/bls/naics.htm> or <http://www.census.gov/eos/www/naics/>

## **National Earnings (Industry)**

Like the Average Annual Wage, but divides national industry earnings by national employment to get earnings per worker nationwide. Source: EMSI's proprietary employment data.

## **National Earnings (Occupation)**

Earnings using the nation, rather than region of study, as a backdrop. Source: EMSI's proprietary employment data, relying heavily on occupational earnings reported in OES.

## **National Location Quotient (Industry)**

Comparison of percent employment in the region to percent employment in the nation. A location quotient of 1.0 means that percent employment for the region

matches the nation. As a relative measure of concentration, location quotient is very useful for identifying key regional industries. High location quotients indicate that the industry makes up an important part of the region's economic base, often generating exports and wealth for the local economy. Source: EMSI's proprietary employment data.

### **National Location Quotient (Occupation)**

Comparison of percent employment in the region to percent employment in the nation. A location quotient of 1.0 means that percent employment for the region matches the nation. As a relative measure of concentration, location quotient is useful for identifying key regional occupations. An occupation with a high location quotient contributes to the uniqueness of a region, and is often associated with a key industry or sector. Source: EMSI's proprietary employment data.

### **Non-QCEW Employees**

Estimates the jobs that fall under an employer-employee relationship, but are not captured in QCEW. The major types of employment in this set include military jobs, railroad jobs, many nonprofit and religious workers, certain salespersons, miscellaneous Federal Government and some other government workers. Source: Various sources, including the BEA's SPI and LPI datasets.

### **O\*NET**

A national database quantifying the competencies (knowledge, skills, and abilities) required by over 800 occupation types. *See* <http://www.onetcenter.org>

### **Occupation**

A worker job description that contains a defined sets of tasks and responsibilities. Occupations are classified using SOC codes (and O\*NET extensions to SOC).

### **Occupational Compatibility Index**

This number is intended to score the compatibility of two occupations in terms of the knowledge, skills, and abilities they require: a score of 100 means complete compatibility, while a score of 0 means no compatibility. It is an artificial number created by our proprietary algorithm and O\*NET data.

## **Openings**

Estimated employment change and turnover for an occupation for the selected timeframe. Openings may be divided by the number of years in the selected timeframe to derive Annual Openings. This is EMSI's estimate of labor market demand for an occupation, and when combined with Related Completions gives a picture of the supply and demand for the occupation in the region. Source: EMSI's proprietary employment data.

## **Percentile Earnings**

A percentile is a wage below which a certain percent of wages fall. For instance, 25% of wages fall below the 25th percentile, meaning that a worker at the 25th percentile makes more than 25% of the workers in that occupation. Source: EMSI's proprietary employment data, relying heavily on occupational earnings reported in OES.

## **Population**

The total number of people living in the region. Source: EMSI data based primarily on the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA).

## **Program**

A post-secondary course of study (or group of related courses) as defined by a standard CIP code.

## **Projection (Demographics)**

A method of trending past population numbers by demographic group into the future.

## **Projection (Jobs)**

A method of trending past employment numbers for an industry or occupation into the future. Note that a projection is not a prediction, and projected job growth is not the same thing as “demand,” though there is significant overlap.

## **Property Income**

The value of total dividends, interest, rent, corporate profits, and capital depreciation created in the region. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **QCEW (Quarterly Census of Employment and Wages)**

A federal data source showing unemployment insurance covered employment by industry. *See* <http://www.bls.gov/qcew/>

## **QCEW Employees (Data Category)**

A form of the BLS QCEW dataset that has been modified slightly by EMSI. Suppressions have been removed, public sector employment has been reorganized, and county and NAICS changes have been modified in past years for consistency. This dataset is designed to match QCEW in almost all cases, and should be used by clients who wish to match official sources. Source: QCEW, modified using EMSI's proprietary methods.

## **Race and Ethnicity**

The federal government tracks several racial categories (White, Black or African American, Asian, etc.) but only two ethnic categories, Hispanic and Non-Hispanic. There may be some overlap between race and ethnicity unless the two characteristics are clearly separated, e.g., “White non-Hispanic,” “White Hispanic,” and “Non-white Hispanic.” *See* [http://www.whitehouse.gov/omb/fedreg\\_race-ethnicity](http://www.whitehouse.gov/omb/fedreg_race-ethnicity)

## **Race Demographics**

Source: Census Bureau, incorporating data from the United States Postal Service and the National Center for Health Statistics.

## **Regional Completions**

All completions for programs associated with an occupation and offered by institutions falling within the region of study. Source: IPEDS.

## **Regional Requirements**

A comprehensive look at requirements (see Industry Requirements) for every industry in the region. Because requirements allow you to see the extent to which each industry's need for goods and services is fulfilled within the region, viewing them in a table with sort and filter features means that you can focus in on the industries whose requirements are being met within the region, as well as those showing significant gaps.

## **Related Completions**

The number of people who received either a degree or certificate related to the occupation during the year indicated. This represents the educational supply for an occupation, and when combined with Annual Openings gives a picture of the supply and demand for the occupation in the region. Source: IPEDS.

## **Replacement Jobs**

The number of job openings (over a given timeframe) expected in an occupation as the result of turnover—e.g., employees changing occupations, retiring, etc. It is derived by multiplying estimated annual turnover by the number of years in the given timeframe. A component of the Annual Openings Estimate.

## **Revenue (I/O)**

The total sales made by this industry. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Sales (I/O)**

An industry's total annual sales (gross receipts).

## **Sales Multiplier**

The total sales created in the region as a result of a single dollar of new sales. This number includes the yield and the initial dollar addition. In other words, a sales multiplier of 1.82 is made up of the initial dollar added (1.0) and the further yield (0.82). Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

## **Sector/Super-Sector**

A group of related industries or occupations, usually the 2 or 3 digit NAICS or SOC level of detail.

## **Self-Employed (Data Category)**

Includes workers who, when responding to Census surveys, consider self-employment to be a significant part of their income or time spent working. Most people normally considered "self-employed" would fall into this dataset. Source: Census' ACS, combined with other sources and modified using EMSI's proprietary methods.

## **Shift Share**

Used in both industry and occupation contexts, this is a standard method of regional economic analysis that attempts to separate either regional growth into its component causes. The three main causes identified are the "national growth effect" which is regional growth that can be attributed to the overall growth of the entire National economy; the "mix effect" which is regional growth that can be attributed to positive trends in the specific industry or occupation at a national level; and the "regional competitiveness effect" which is growth that cannot be explained by either overall or industry/occupation-specific trends. The result of the calculation and most important of the three is the "competitive effect," which, because it's isolating region specific growth, demonstrates a particular regional strength. Shift share analysis is practical because it provides a larger perspective on regional job growth, allowing researchers to measure the extent and source of job change in a region. See also National Growth Effect and Mix Effect and Competitive Effect and Expected Change. Source: EMSI's proprietary employment data.

## **SOC (Standard Occupational Classification)**

The federal system of classifying occupations using six-digit codes.

*See [www.bls.gov/soc/](http://www.bls.gov/soc/)*

## **Staffing Pattern**

Shows the percentage of total industry jobs a specific occupation makes up. For example, a (simplified) staffing pattern for the industry "Hospitals" might show that 10% of jobs in the hospitals industry are occupied by surgeons, 15% by general

practitioners, 20% by nurses, 5% by information technology support staff, 5% by janitors, 1% by chief executives, and so on. See also Inverse Staffing Pattern. Source: Primarily the national OES staffing pattern, combined with projections from the National Industry-Occupation Employment Matrix and EMSI's proprietary employment data.

## **Start Year**

In the Timeframe in the toolbar this is the first year you've chosen. If your timeframe is 2008-2013, 2008 is your "start year." See Timeframe *and* End Year.

## **State Earnings (Industry)**

Like the Avg. Annual Wage, but divides state industry earnings by state employment to get earnings per worker statewide. Source: EMSI's proprietary employment data.

## **State Earnings (Occupation)**

Earnings using the state, rather than region of study, as a backdrop. Source: EMSI's proprietary employment data, relying heavily on occupational earnings reported in OES.

## **State Location Quotient (Industry)**

Like National Location Quotient, but uses the percentage employment at the state level as the basis of comparison. See *also* Location Quotient. Source: EMSI's proprietary employment data.

## **State Location Quotient (Occupation)**

Like National Location Quotient, but uses the percentage employment at the state level as the basis of comparison. See *also* Location Quotient. Source: EMSI's proprietary employment data.

## **Suppression**

A missing data point (usually an industry employment number) in published government databases, due to government non-disclosure policies that prevent data from being published if it can be connected to a specific business establishment. Also

called a “non-disclosable” data point. EMSI’s sophisticated algorithms replace suppressions with educated, bounded estimates.

### **Taxes on Production (I/O)**

This figure represents taxes on production and imports with subsidies subtracted. It includes use taxes, sales taxes and other taxes, but does not include corporate or personal income tax. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

### **Timeframe**

A timeframe defined by a start and an end year. In our reports, published data is employed for each year in the growth period it is available. For future years (and sometimes the year previous to the present) EMSI projections are used. *See Start Year and End Year.*

### **Top Regional Businesses**

The businesses in this industry with the most local employment according to Equifax, EMSI's provider of business-level data. Equifax's sources and methodology differ significantly from EMSI's, and some differences in NAICS classification can be expected. Analyst lists the first 5 businesses as a convenience for all customers; detailed tables are available for an additional fee. Source: Equifax's Customer Data Management Demographics File.

### **Total Earnings (I/O)**

The total industry earnings for a region. Includes wages, salaries, supplements (additional employee benefits), and proprietor income. Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

### **Total GRP (I/O)**

Measures the final market value of all goods and services produced in a region. This figure is the sum of earnings, property income, and taxes on production. Source: EMSI data based primarily on the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA).

## **Unemployed (Industry)**

An estimate of total unemployed persons by industry in a region. EMSI uses LAUS as the basis of its unemployment data, which uses a definition of unemployment roughly equivalent to U3, the most widely used measure. Available by county for all 2-digit NAICS. Source: LAUS, combined with CIU and EMSI's proprietary employment data.

## **Wage & Salary + Supplements**

EMSI displays QCEW earnings as two separate values: “Wages and Salaries” and “Supplements” (or the total, “Earnings”). “Wages and Salaries” are equivalent to QCEW reported earnings and include wages, salaries, commissions, tips, overtime pay, hazard pay, bonuses, stock options, and severance pay. “Supplements” include employer contributions to 401(k) plans, pensions, insurance funds, and government social insurance (FICA/FUTA). Source: Wages come from EMSI's proprietary data and rely heavily on industry earnings reported in QCEW; supplements are derived from the BEA's State and Local Personal Income Reports.