EMSI Definitions/Sources:

4-digit NAICS: [North American Industry Classification System (NAICS)](#) 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/

Annual openings: 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 Hourly 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.

CIP Code and title: 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/

Competitive Effect: In shift share analysis this reflects the regional growth that cannot be explained by either overall national growth or industry/occupation-specific trends. This is the growth (or decline) that is unique to your region. 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 total earnings: 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).

EMSI Glossary: http://kb.economicmodeling.com/glossary/

Establishments by NAICS: Also referred to as a "Payrolled Business Location", an establishment is 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.

As an example, a single company with its corporate office in New York, a paper manufacturing plant in Georgia, and fifteen warehouses in various cities would comprise a total of seventeen establishments, and each establishment would be classified according to its own type of activity. In this case, three different industries would be used:

- Corporate, subsidiary, and regional managing offices
- Paper (except newsprint) mills
- General warehousing and storage

Source: QCEW.

Industry (description): 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.

Industry Supply Chain: 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.

- % of Purchases in-region
- % of Purchases Imported

Source: EMSI's model, incorporating data from the Bureau of Economic Analysis (BEA).

Jobs: A job is any position in which a worker provides labor in exchange for monetary compensation. This includes those who work as employees for businesses (a.k.a. "wage and salary" employees) and proprietors who work for themselves.

EMSI reports employment as annual job averages. The exception is the Extended Proprietors Class of Worker, which counts proprietors that existed at any time during a given year, because those data are based on tax returns. Employment averages represent jobs, not workers, since one individual may hold multiple jobs.

Due to limitations of source data, both full- and part-time jobs are included and counted equally, i.e. job counts are not adjusted to full-time equivalents. Geographically, payroll jobs are always reported by the place of work rather than the worker's place of residence. Conversely, self-employed and extended proprietors are always reported by their place of residence. Unpaid family workers and volunteers are excluded from all EMSI data.

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).

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." For example, if the leather products manufacturing industry accounts for 10% of jobs in your area but 1% of jobs nationally, then the area's leather-producing industry has an LQ of 10. So in your area, leather manufacturing accounts for a larger than average "share" of total jobs—the share is ten times larger than normal.

Source: EMSI's proprietary employment data.

Program Completion: 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 Overview page. Source: IPEDS, NCES's CIP-SOC Crosswalk with some modifications.

Shift Share: 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.

Source: EMSI's proprietary employment data.

Standard Occupational Classification (SOC) system: used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together.

There are a few minor differences between EMSI and standard SOC codes:

- EMSI does not use SOC codes for military occupations, due to lack of good data. EMSI uses one aggregate code, 55-9999, for all 20 military occupations in standard SOC codes.

- EMSI uses a single aggregate code (25-1099) for all postsecondary teachers, instead of the 38 detailed codes in standard SOC. This is due to lack of solid data and also to remain consistent with the BLS's National Industry-Occupation Employment Matrix (NIOEM), which uses a similar code.

- EMSI adds the code 99-9999 for "Unclassified Occupation" to the Extended Proprietors class of worker in industries where we cannot reliably estimate occupations due to lack of data.

- Following OES, EMSI adds the code 25-3098 (Substitute Teachers).

Typical Entry Level Education, Work Experience, and On-the-Job Training: 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.

Unsuppressed: The Bureau of Labor Statistics suppresses as much as 60% of county-level industry employment and wage data. EMSI's proprietary algorithms remove suppressions and provide estimates using over 100 data sources. See http://bit.ly/Data-Source.