

## **Market Evaluation Methodology**

### **Introduction**

Data used for market evaluation are employment and wages. For these two measures, comparisons are made between the size of the unionized electrical construction industry and the total electrical construction industry. The source for the unionized electrical construction industry is the NEBF and for the total electrical industry figures is the Bureau of Labor Statistics.

### **Sources**

Unionized Electrical Construction Industry Data – The unionized electrical construction industry is fortunate to have the NEBF as a comprehensive source for reliable construction union employment and wage data maintained for each local union. Annual figures from each local union are used herein.

Total Electrical Industry Data – The exact total number of persons employed as electricians and other related occupations in an area performing construction work does not exist, but reasonable estimates can be made. The source is a Bureau of Labor Statistics (BLS) data base – Census of Employment and Wages ([www.bls.gov/cew/home.htm](http://www.bls.gov/cew/home.htm)). It includes total electrical industry employment and wages by industry (NAICS 23821) and by county. These data are developed from employer's quarterly Unemployment Insurance Tax filings.

Another BLS data base identifies the occupational composition of the employers who classify themselves as contractors in the electrical construction industry at the national level. The portion of industry employees who work as electricians or in related occupations can be identified. The total of these workers will be compared to union employment to determine the employment and wage share of the unionized electrical industry.

### **Goal**

The goal is to translate these sources of data into an accurate representation of total electrical construction industry employment and wages for the geographic jurisdiction of each local union and chapter. This is a key factor in determining the size of the unionized electrical industry. IBEW and NECA representatives extensively reviewed the data and concepts of the BLS and the NEBF data to arrive at the best possible measures of electrical construction industry employment and wages.

### **Why the Need for Data Adjustments?**

#### **Employees and Wages**

BLS publishes total electrical construction industry employment by county permitting total industry employment to be matched to the geographic coverage of each local union. Not all employees of the electrical industry are electricians, so that total industry employment and wages needs to be adjusted. Upon reviewing the occupational

composition of the industry (details may be found at [www.bls.gov/emp/empiols.htm](http://www.bls.gov/emp/empiols.htm)), it was determined that the proper data adjustment for all recent years for employment is .77 and for wages .74. (In other words, 77% of the workers reported to BLS by self-identified electrical employers are electricians who account for 74% of the reported wages paid.)

### Location Rebalancing

Data limitations in identifying total electrician employment introduce some uncertainty into sub-state (union jurisdiction) estimates. To compensate for this, a location rebalancing procedure has been developed. It reduces the degree of uncertainty and is explained below.

The place of employment to BLS is not the location of the project, but the location of the contractor's office, which may be outside of the project local union's geographic area. As a result total electrician employment is understated in the area of the project and overstated in the area of the contractor's office. Therefore, there is a mismatch of union and total activity. This methodology corrects for the mismatch by reallocating employment/wages to the location of the project. The reverse situation is also possible in which the area employment/wages are overstated because area contractors perform work elsewhere. The outcome is a rebalancing of total employment and wage data to better match total activity to union segment activity. (Interstate adjustment is not needed because contractors report employment/wages to each state in which they pay Unemployment Insurance Tax.)

For example:

In January, Contractor A employs 8 electricians in Local Union 8888 jurisdiction on one project (Deneb).

In June, Contractor A gets a project (Vega) in Local Union 9999 jurisdiction in the next county and he takes 4 electricians from LU 8888 for the Vega project, therefore reducing the employment to 4 electricians at Deneb to work.

According to BLS records, in January LU 8888 has 8 electricians working for Contractor A, and LU 9999 has none. In June, the data does not change because the BLS recognizes Contractor A's office in LU 8888 jurisdiction and is over reported by 4. Therefore LU 9999 does not get credit for the work being performed and is under reported by 4.

The rebalancing for contractors working in/out of a jurisdiction reflected in this report is an effort to give each jurisdiction the credit for work being performed in their jurisdiction.

### Non-Electrical Employer Rebalancing

Another factor is considered in using the BLS employment data. While other employers may employ electricians, the BLS data only captures the employment by employers who report themselves to the BLS as primarily electrical contractors. In reviewing contributor lists to the NEBF, there were instances for some locals of general contractors, universities, newspapers and others being identified as employers of electricians. Total employment figures had to be rebalanced upward to compensate for this undercount.

The rebalancing for non-electrical contractors input is an effort to give each jurisdiction the most accurate data possible. However, we are not able to capture electricians employed by non-union or non-electrical contractors. (For example, a large non-union construction firm may employ electricians, but report itself as a mechanical contractor. Therefore, these workers do not show up in the total electrical employment or wage data.)

### Rebalancing Exceptions

The one exception to the general procedure of rebalancing is Illinois. In the Chicago area, there is a significant degree of interchange of both contractors and workers between local union geographic jurisdictions. Not only are there high levels of employer rebalancing, but union employment figures are overstated because contributions were often made to NEBF for the same person in multiple jurisdictions. (For example, in 2005 in one large metropolitan area, research showed that more than 27% of the electricians reported on worked in more than one local union, and over 15 worked in 7 separate local unions.) To achieve the goal of the most accurate estimates, Illinois calculations were made separately for Chicago and surrounding local unions and those local unions in the rest of the state.

### **Uncertainties**

After these adjustments, there may still be anomalies in the findings. BLS data may still not be perfectly matched. As stated, all BLS total electrician employment numbers are derived from data that have been collected for other purposes. Also in a small number of cases, the NEBF employment data was adjusted utilizing IBEW membership records to more accurately reflect union employment levels in these local jurisdictions. (A note appears on each of the individual reports where the further explanations are necessary.) Each case needs to be evaluated separately. This is a reminder that the final step in market evaluation must be the knowledge industry leaders have about their areas.