

1 EXECUTIVE SUMMARY

The New Horizons Foundation (the Foundation), a Heating, Ventilation, and Air Conditioning (HVAC) and Sheet Metal Industry Initiative, was established by leading sheet metal and HVAC contractors and stakeholders in conjunction with the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA). The Foundation is involved with a number of initiatives including the identification and analysis of workforce-related trends affecting the HVAC and sheet metal industries as a whole.

Throughout the United States (U.S.) economy, union membership has declined significantly in most industries, and unions in the construction industry – including sheet metal and HVAC – have not escaped this trend. In light of these developments, the Foundation decided to sponsor a study focused on the comparison of operating costs between union and nonunion sheet metal and HVAC contractors. The intent of this study is to determine some of the operational differences, if any, that may impact the contractors' cost structure and resulting competitiveness (or seeming lack thereof) in the market. These results can provide the foundation with future industry and individual company initiatives to enhance operating performance. The findings will provide comparative information for both union and nonunion firms of all types and sizes.

FMI Corporation (FMI), one of the leading management consulting companies specializing in the construction industry, was engaged in July 2006 to conduct a survey for the Foundation to gain better understanding of the key operating costs and selected business

practices for union and nonunion sheet metal and HVAC contractors. The findings presented in this study are the result of interviews conducted with selected industry stakeholders and surveys with a representative sample of HVAC contractors and related firms throughout the country. The study was designed to acquire subjective input on a variety of cost-related issues for the HVAC contractor. In all, response was collected from slightly more than 100 firms. While the sample size does not support precise quantitative metrics, we believe that the consistency of responses provides strong directional input regarding the cost structure differences between union and nonunion firms.

Cost differences identified through this study included the following:

- *Total Costs:* As indicated by the perceived cost differentials between union and nonunion firms shown through bid prices and cost information, the differences ranged from 12 percent (%) to 21% higher for union firms, depending upon job size and public versus private work. In general, the union firm is more cost competitive on larger jobs (greater than \$500 thousand (K)) and public work.
- *Labor Costs:* Labor rates are predictably higher for union workers at all levels with fully burdened rate differences from 22% at the entry level, 33% at the apprentice level, and 39% at the journeyman level. These rate differences are consistent with other industry published studies.
- *Fabricated Ductwork:* Again, significant differences exist with the union contractors having costs about 20% higher than their nonunion competitors.

- *Crew Mix:* The ratio of apprentices (laborers) to journeymen (tradesmen) provides another significant cost advantage to the nonunion contractors. With between a 5-6:10 crew mix ratio for union firms versus a 30:10 crew mix ratio for nonunion firms, the mix creates an even more favorable blended rate for the nonunion firm.

Balancing some of these cost differences, the apparent higher productivity levels of the union field workers help to mitigate the enormous cost differentials existing with the current model. In addition, according to survey respondents, union firms have lower field supervision/management costs, lower employee turnover at all levels, and less rework. All these factors help to narrow the cost gap that exists today. Both union and nonunion firms are enjoying strong backlogs and profit levels due to the vibrancy of the non-residential market. The strong market is likely masking the inherent cost advantage of the nonunion contractor. When the market returns to more normal levels and experiences the inevitable downturn, the advantage to the low-cost producer becomes more noticeable and critical.

Opportunities for improvement exist for all HVAC and sheet metal firms regardless of type, size, and union affiliation. Most industry reports indicate that a significant amount of time in the field is considered “recoverable lost time” and can be minimized through effective field and management productivity.

For example, the survey results show profit erosion (see Figure 22) for both union and nonunion firms. Pre-job planning practices (see Figure 25) are another area for

improvement as many firms spend little time on this important job management function. In addition, as indicated by the responses dealing with training, many field/shop managers are not receiving training in the critical areas of planning and scheduling, communication skills, and customer relations.

While the market is strong, many successful contractors will use this time to better understand and manage their costs while investing in key areas to enhance current and future performance.

2 KEY FINDINGS

2.1 Business Characteristics

The results of this survey overwhelmingly represent the operating structure of HVAC and mechanical contractors.

Survey respondents are largely concentrated at either end of the revenue scale (less than \$5 million (M) and greater than \$20 million, respectively).

Both 100% union and 100% nonunion respondents indicated that the majority of their annual sales were attributed to non-residential work. The 100% nonunion respondents, however, reported a significantly higher percentage of annual sales attributed to residential work compared to the 100% union respondents (approximately three times as much on a percentage basis).

Survey respondents representing small companies (less than \$20 million) have a stronger focus on the residential and service