

An Analysis of the Need for New or Expanded Apprenticeship and Workforce Education Programs



Council for Education Policy,
Research and Improvement

Legislative Charge

Statutory language in Chapter No. 2004-357 amends s. 1011.83, Florida Statutes and requires the following:

- A joint study conducted by the Agency for Workforce Innovation and the Council for Education Policy Research and Improvement (CEPRI) on the need for new and expanded apprenticeship and other workforce education programs within each workforce region.
- A specific emphasis shall be placed upon apprenticeships in construction and educational programs, including, but not limited to, biotechnology, information technology, allied health, or other identified areas of critical need.

Recommendation

It is the recommendation of these agencies that this data analysis be used by the regional workforce boards, local education providers, and local economic development organizations, to assess the needs of their region.

- These organizations should validate these results based on what they know about their region, supplementing it with information on private providers of workforce training.
- The assessment should consider the long-term view when considering regional needs for training.
- They should think regionally and consider the contributions of neighboring counties toward meeting the needs of their workforce region.

With careful consideration of this data, AWI and CEPRI believe that regional planning for workforce training opportunities can be improved. Decisions regarding local program expansion should be driven by a variety of factors, including but not limited to, program expansion and operational costs, cost-benefit analysis (i.e., cost per completion), and the overall economic benefit to the state and to the program completer.

<http://www.cepri.state.fl.us>



<http://www.floridajobs.org>

December 2004

The full report is available on the CEPRI website.

The Council for Education Policy, Research and Improvement (CEPRI) was created as an independent office under the Office of Legislative Services by the 2001 Legislature (Section 1008.51, Florida Statutes). The Council serves as a citizen board for independent policy research and analysis and is composed of five members appointed by the Governor and two members appointed by Speaker of the House and two members appointed by the President of the Senate.

The Agency for Workforce Innovation is responsible for implementing policy dealing with workforce development programs, welfare transition, unemployment compensation, workforce information services and labor market information.

Overall Conclusions

This report contained two separate analyses. First, CEPRI and AWI reviewed the available data on the supply of skilled workers from public and private training programs and the demand for skilled workers by occupation and workforce region. Second, the employment outcomes from two types of workforce programs, apprenticeship and certificate, were examined to assess the relative benefits of these programs.

Overall, the workforce needs analysis and employment outcome analysis have identified interesting trends and results from Florida's workforce training system. As the state focused on the need for high wage, high skill workers to fill Florida's workforce needs, public and private training providers have responded to this call by directing their efforts toward meeting these needs. However, opportunities still exist for meeting current and future needs. An examination of the primary conclusions of this analysis will assist local workforce development boards, training providers and economic development organizations when considering future training needs.

Potential opportunities exist for program expansion in all regions of the state.

A careful analysis of any potential under- and over-supply must consider the size of the gap between openings and completions and whether existing programs have room for expansion or a new program is warranted. The contribution from private providers should also be assessed prior to making plans for program expansion.

To evaluate whether an under- or over-supply situation might currently exist, an estimate of "unmet demand" for trained workers in certain occupations was calculated by compiling data on the demand for workers requiring workforce training (projected average annual openings through 2011) and the supply of skilled workers (program offerings, enrollments, and completions from district, community college and private programs, including apprenticeship). The occupations examined were limited to those on the regional targeted occupations lists that require long-term on-the-job training through a two-year degree program. The data used in this analysis included:

Workforce Demand

- Occupational employment projections through 2011 for Florida's 24 workforce regions, mean wages for 2004, and whether the occupations were in an Enterprise Florida, Inc. Key Sector. The source for this data was the Agency for Workforce Innovation.

Workforce Supply

- Number of workforce training programs, program enrollments, and program completions, offered by district, college, apprenticeship, and/or private providers. The source for this data was the Florida Department of Education.

This data was compiled and displayed in Table 1 (summary by workforce region) and Tables 2a through 2x (with a table for each workforce region) of the full report. Please review these tables in the full report for data on potential under- and over-supply situations by occupation and workforce region.

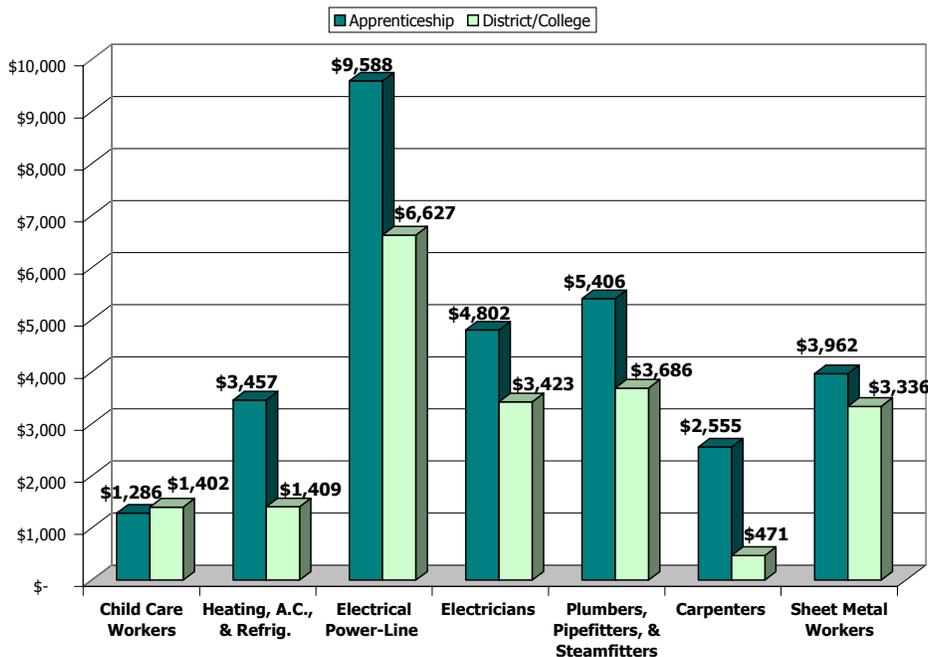
Apprenticeship and certificate program completers produce considerable “value-added” benefits for their students and Florida’s economy.

In addition to supply-demand analysis, a longitudinal analysis of the short-term and long-term employment outcomes of apprenticeship and other workforce program completers was conducted. Data available from the Florida Department of Education, including the Florida Education and Training Placement Information, allows for analysis of pre-completion and post-completion outcomes of workforce education programs.

Data was collected on two groups: 1) Registered apprenticeship program completers from July 1, 1999 to June 30, 2000 and district and community college postsecondary adult vocational (PSAV) program completers in the 1999-00 academic year. Employment outcomes were tracked for a select group of occupations for which both apprenticeship and PSAV programs were available in the state.

An examination of pre-completion and long-term post-completion earnings reveals

**“Value-Added” by Apprenticeship and District/College Programs:
Earnings for Pre-Completion and Post-Completion**



that program completers from apprenticeship and certificate programs experienced considerable increases in average quarterly earnings by 2003. The largest increase in earnings was for electrical power-line installers/repairers. An apprenticeship completer in this program had an average quarterly earnings increase of \$9,588 from the time of program enrollment to 2003. Similarly, district/college completers in electrical power-line programs had a mean quarterly earnings increase of \$6,627.

Note: Pre-completion quarter depends on the occupation. All post-completion earnings are for the 3rd Quarter of 2003. All earnings are in constant dollars for 3rd quarter 2003)
Source: Florida Department of Education Data, as analyzed by CEPRI and AWI

The smallest earnings gains were for child-care workers programs, whose completers had quarterly earnings increases of less than \$1,500 for both apprenticeship and certificate holders.

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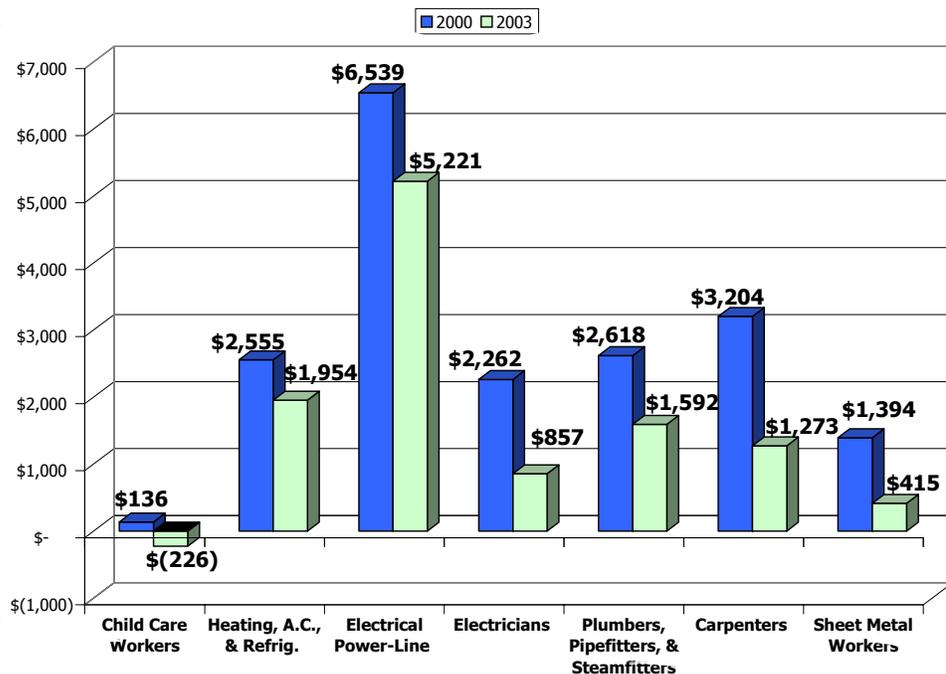
Completers of apprenticeship programs have post-completion earnings exceeding those of district and community college completers, but the gap narrows over time.

While the earnings increases for apprenticeship completers exceeded that of certificate completers in the initial post-completion earnings, the gap begins to shrink over time. For all seven occupations examined in the study, the initial quarterly earnings (2000) for apprenticeship completers exceed those of certificate completers.

However, when you examine the earnings differential between apprenticeship and certificate holders (see chart), the earnings gaps decreases for all occupations over time.

For example, in electrician programs, the gap in post-completion quarterly earnings between apprenticeship and district/college completers was \$2,262 in 2000, immediately following completion, but by 2003 the gap had narrowed to \$857.

Differences in Initial (2000) and Long-Term Earnings (2003) Between Apprenticeship and District/College Completers (In Constant Dollars)



Source: Florida Department of Education Data, as analyzed by CEPRI and AWI

A clear participation gap exists between males and females in the apprenticeship programs and their related district and community college counterparts.

Of all apprenticeship completers in 1999-00, only 18 percent of apprenticeship completers were female. However, when child care workers are excluded, females compose less than 2 percent of apprenticeship completers and about 5 percent of completers in similar programs offered by community colleges and districts. This gap has a significant impact on the earnings of male and female completers of apprenticeship training.

Please visit our website at <http://www.cepri.state.fl.us> for the full report