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## Florida Should Not Use the Targeted Occupations Lists as the Sole Criteria to Fund Career Education Programs

### *at a glance*

The targeted occupations lists and the Florida Education and Training Placement Information Program (FETPIP) are Florida's primary sources of information about promising employment sectors and occupations and the effectiveness of related training programs. The primary purpose of the targeted lists is to direct federal workforce funding to postsecondary programs that will prepare students for high-demand, high-wage occupations. FETPIP tracks the actual employment rates and earnings of students completing specific programs, which state and local administrators use for reporting purposes and to monitor program performance.

The Legislature recently considered the possibility of using the targeted occupations lists to direct state funding toward career education programs that will produce better student outcomes and meet businesses' needs. However, when using FETPIP to measure public career education programs' outcomes, we found that targeted programs do not perform substantially better than non-targeted programs. In addition, both the targeted lists and FETPIP have some limitations for targeting resources. As a result, it would not be feasible at this time to exclusively use the targeted occupations lists to direct state funding for career education programs.

### Scope

As directed by the Florida Legislature, OPPAGA examined student outcomes for career education programs. This report is part of a series on career education in Florida and addresses two questions.

- What are the major sources of information used to target Florida's career education resources?
- Would it be desirable for the state to use the targeted occupations lists to direct all state funding for career education programs?

### Background

Florida's postsecondary career education programs provide opportunities for adults to train for jobs that will help them achieve economic self-sufficiency and advance in their careers. The programs also help ensure that Florida's employers have access to skilled workers needed to compete in the global economy.

Postsecondary career education programs offer training for a variety of occupations that require more than a high school diploma but less than a four-year degree. These occupations include nursing and other health care professions, law enforcement and fire fighting, cosmetology, manufacturing and construction trades, hospitality and tourism, and transportation and logistics management. Career education programs can be as short as two weeks and as long as two and one-half years, and can enable students to earn college degrees and certificates, vocational

can be as short as two weeks and as long as two and one-half years, and can enable students to earn college degrees and certificates, vocational credit certificates and diplomas, apprenticeships, and continuing workforce education credits.

Both public and private providers offer career education programs, including 44 technical centers operated by Florida's school districts, the 28 institutions in the Florida College System, and over 500 private schools licensed by the Commission for Independent Education. In 2007-08, Florida's public and private institutions served over 385,000 students who were enrolled in 669 different career education programs.

Public career education programs are primarily funded by state funds, which school districts and colleges receive through lump sum appropriations from the Florida Legislature. These programs are also authorized to charge tuition and fees from participating students. In Fiscal Year 2007-08, school districts and colleges spent approximately \$685 million on career education programs. Private programs are primarily funded through tuition and fees charged to participating students.

## Questions and Answers —

### What are the major sources of information used to target Florida's career education resources?

To be successful, career education programs must train students for occupations that have family-sustaining wages and current or emerging employment demands. It is important for the state and institutions to analyze labor markets and identify promising employment sectors and occupations to serve through career education programs, and to assess the effectiveness of existing career education programs in meeting these employment needs. The state and local institutions currently use two primary information sources to accomplish these tasks: (1) state and regional targeted occupations lists, and (2) the Florida Education and Training Placement Information Program (FETPIP).

### *The state's targeted occupations lists identify occupations that are projected to have high employment demands and wages*

Each year, the state develops statewide and regional lists of targeted occupations, which identify high-demand, high-wage occupations. The state primarily uses these lists to direct federal workforce training dollars to programs that prepare individuals for the targeted occupations, while school districts and colleges use the lists to help determine what programs they will offer.

The targeted occupations lists are created through a multi-step process. Over a three-year period, the Agency for Workforce Innovation surveys approximately 63,000 Florida businesses to collect occupational employment information by industry and the hourly wages (and tips) paid to individuals working in various occupations.<sup>1</sup> These surveys are primarily sent to businesses that pay unemployment compensation taxes and are conducted in accordance with federal statistical standards and requirements. The agency uses the survey results, combined with its forecast of future industry trends, to estimate statewide employment demands for various occupations, to calculate projected job openings due to economic growth and employment separations, and to calculate entry-level and average hourly wages for each occupation.

The agency provides these employment demand and wage estimates to the Workforce Estimating Conference, a semiannual meeting of policymakers and stakeholders.<sup>2</sup> The conference establishes criteria for identifying high-wage, high-demand jobs that require two years or less of training. The agency then uses conference results to generate the statewide targeted occupations list. In 2008-09, the Workforce Estimating Conference used three criteria to include occupations on the statewide targeted list—

<sup>1</sup> Approximately 21,000 businesses are surveyed each year.

<sup>2</sup> The conference principals include professional staff from the Legislature, the Executive Office of the Governor, and the Office of Economic and Demographic Research. The conference principals meet at least twice a year to reach a consensus on whether or not to adjust the statewide wage, job opening, and employment growth thresholds that are the criteria for establishing the statewide targeted occupations list.

occupations had to be associated with certificate or degree training programs, provide an entry-level wage of at least \$9.80 and an average hourly wage of at least \$12.05, and have at least 150 annual job openings with an average growth rate of 1.89% or at least 360 average job openings with positive growth.<sup>3</sup>

Under authority from Workforce Florida, Inc., the Agency for Workforce Innovation uses a similar process to produce preliminary targeted occupations lists for each of the state's 24 workforce regions. These regional lists include adjustments for cost-of-living differences and the size of each region.<sup>4</sup> Regional workforce boards review these draft lists and may request changes; Workforce Florida, Inc., approves or denies these requests and publishes final targeted occupations lists for each region. This process is critical because it can make up for gaps in the statewide targeted occupations list. Regional workforce boards' knowledge of local market conditions such as available labor supply, plant closings and openings, and local training programs provide them valuable information by which to request adjustments to the statewide list.

Finally, as part of an ongoing process, the Department of Education works with training providers to identify the career education programs that prepare students to work in specific occupations including those on the targeted lists. Because occupational categories used in creating the lists are sometimes broad, there may not be a one-to-one relationship between an occupation and a specific training program; multiple programs may train students for the same occupational category, and some programs prepare students to work in more than one occupation. For example, 15 different training programs, including Phlebotomy, Health Unit Coordinator, and Patient Care Technician, all train students for positions in the 'Healthcare Support Worker, All Other' occupational category.

<sup>3</sup> At its August 2009 meeting, the conference set the entry-level and average hourly wage thresholds for high-demand occupations at \$10.29 and \$12.66, respectively, for the 2010-11 statewide targeted list.

<sup>4</sup> The job opening threshold was set by Workforce Florida, Inc., at 25 average annual openings for large regions (300,000 employment or more) or 10 average annual openings for small regions (299,999 employment or less).

The state primarily uses the targeted occupations lists to direct federal workforce funding to programs with higher employment demands and wages. The Federal Workforce Investment Act of 1998 requires states to provide education and employment training services for youth, adults, and dislocated workers. The Agency for Workforce Innovation allocates funds available through this act to the state's 24 regional workforce boards to provide these services. At least 50% of these funds must be spent on individual training accounts, which participants can use to attend certain training programs. State law requires that participants use this money only for programs that train for occupations on the statewide or regional targeted occupations lists at eligible institutions.<sup>5</sup> In Program Year 2008-09, approximately \$37 million in federal funds was spent in this manner.

In addition, as provided in s. 1011.80(6), *Florida Statutes*, the Legislature has used the lists when appropriating state performance funding for career education programs offered by school districts and Florida colleges. Institutions receive these funds for students who completed programs and were placed in jobs on the targeted occupations lists. For Fiscal Year 2009-10, the Legislature appropriated approximately \$23 million (\$5.3 million to school districts and \$17.7 million to colleges) for this purpose.<sup>6</sup>

Local institutions use the targeted lists to help determine local program offerings. We surveyed school districts, colleges, and regional workforce boards to determine if they use the targeted occupations lists to target their resources.<sup>7</sup> Most institutions we surveyed (87%) indicated that they use the targeted lists to help determine what career

<sup>5</sup> Federal law requires that individual training account funds only be spent on programs that train for occupations in high demand. Florida chose its targeted occupations lists, which include high-demand and high-wage jobs, to meet this requirement.

<sup>6</sup> In Fiscal Year 2008-09, the Legislature moved colleges' performance funding into each college's base funding level (the Community College Program Fund); the performance funding is no longer a separate line item in the state budget. We estimated \$17.7 million in performance funding for 2009-10 based on the amount allocated for this purpose in 2008-09.

<sup>7</sup> We received responses from 53 districts and colleges, for a response rate of 85%. We received responses from 20 regional workforce boards, for a response rate of 83%.

education programs they should offer in their communities. These respondents indicated that they use the lists as a starting point when analyzing local occupational demands, but also consider additional information such as surveys of local employers and program graduates, business data and requests, and local labor market statistics and databases such as the Florida Research and Economic Database. As noted in an upcoming companion OPPAGA report, local institutions frequently modify their career education programs, including adding new programs and discontinuing existing programs, based on this information.

### ***The FETPIP data system tracks outcomes of career education programs***

The Department of Education regularly tracks individuals that have graduated from career education programs using the Florida Education and Training Placement Information Program (FETPIP).<sup>8</sup> This system identifies whether graduates are continuing on in school or have become employed, and reports the quarterly earnings of employed persons.<sup>9</sup>

FETPIP matches program graduates against postsecondary institutions' enrollment data in subsequent years to determine if they have continued on in their education. For employment-related outcomes, FETPIP matches graduates against employer payroll records reported to the Unemployment Compensation Program administered by the Agency for Workforce Innovation. FETPIP uses an employer's industry designation as classified by the North American Industry Classification System to identify the types of jobs graduates are working in and whether these jobs are related to their training.

The state and local institutions use FETPIP to monitor program effectiveness. The state primarily uses FETPIP to meet federal requirements for reporting on the effectiveness of career education programs in placing graduates in jobs or continuing education opportunities.

- The Carl D. Perkins Career and Technical Education Act of 2006 requires both the state and local institutions receiving grant funds to monitor career education programs' effectiveness based on a series of predefined and agreed upon performance indicators. One of the required indicators is the percentage of graduates placed in jobs or continuing education opportunities, which both the state and local institutions use FETPIP data to report. If grant recipients (state or local) do not meet agreed upon minimum levels of performance on indicators, they must develop and implement a program improvement plan and may subsequently lose a portion or all of their Perkins funding. In Fiscal Year 2009-2010, Florida received approximately \$65 million in federal funding through the act. Most (89%) of this funding is allocated to school districts and colleges to supplement and enhance their secondary and postsecondary career education programs.
- Similarly, the federal Workforce Investment Act requires state and local educational institutions to report on the effectiveness of career education programs receiving individual training account dollars. The act requires reporting on the indicators of employment rates, job retention, earnings, and program completion rates. The state and local educational institutions use FETPIP data to meet these requirements. The state works with the U.S. Department of Labor each year to set minimum performance levels on these indicators. If the state and/or local institutions fail to meet agreed upon minimum performance levels for two consecutive years, the Department of Labor can decrease grant funding by up to 5% and can also prohibit poor performing local training providers from receiving grant funds.
- Local educational institutions also use FETPIP to improve their programs and help determine whether to change program offerings. For example, schools may modify career education programs if FETPIP shows the percentage of graduates who obtain training-related employment declines over

<sup>8</sup> FETPIP was established by s. 1008.39, *F. S.*, and collects data on graduates of all public and some private career education programs.

<sup>9</sup> The quarterly earnings reported include tips and bonuses, but do not include information on self-employed individuals.

time. Some school districts and colleges also reported using FETPIP to help make decisions about program offerings. For example, Broward County School District uses FETPIP data to help review the productivity of its career education programs each year and determine which programs to offer the following school year.

## Would it be desirable for the state to use the targeted occupations lists to direct all state funding for career education programs?

The Legislature recently considered the option of using the targeted occupations lists to more fully direct state resources by discontinuing direct funding for any public career education program that did not train students for targeted occupations; students wishing to train for non-targeted occupations would be provided financial assistance to attend those programs at private institutions.<sup>10</sup> In addition, at the request of the Legislature, the Department of Education prepared a proposal to require students enrolled in non-targeted programs at public institutions to pay higher tuition rates.

Both of these proposals would fundamentally change how the state funds career education and seek to target state resources at programs that produce the best student outcomes and meet business needs. However, our analysis of employment data compiled by FETPIP on graduates of public career education programs found that targeted programs do not have substantially better outcomes than non-targeted programs. This is due in part to limitations in the targeted lists and the data compiled by FETPIP that reduce their effectiveness as tools for targeting career education resources. As a result, it would not be currently feasible to exclusively use the targeted occupations lists to direct state funding for career education programs.

## *FETPIP data show that targeted career education programs do not have substantially better student outcomes than non-targeted programs*

We used FETPIP data to compare the outcomes of targeted and non-targeted programs.<sup>11</sup> Since the targeted occupations lists are intended to identify occupations with higher employment demands and wages, it is reasonable to expect that career education programs that train students for positions in targeted occupations would have higher employment rates and wages than programs that do not train for targeted occupations. However, our analysis found that targeted public career education programs did not have substantially better outcomes than non-targeted public programs.

We compared the performance of targeted and non-targeted public programs on several key student outcome measures – completion rates, employment rates, and median annual earnings of program graduates. We used Department of Education data to calculate the completion rate for each program, and used FETPIP data to calculate employment rates and median annual earnings for program graduates. The number of career education programs we analyzed varied from 390 to 469 depending on the outcome measure.<sup>12</sup> We also ranked each program's relative performance (from lowest to highest performing) and grouped them into four quartiles: lowest, medium-low, medium-high, and highest performance. We used these quartile rankings to determine whether programs that trained students for targeted occupations had substantially better outcomes than programs that trained for non-targeted occupations. See Appendices A and B for more information on our methodology and results for selected program areas.

Targeted career education programs had slightly lower completion rates than non-targeted programs. To achieve the benefits of career

<sup>10</sup> A companion OPPAGA report provides additional information that assesses the feasibility of this scenario by examining differences between public and private programs that train for occupations not on the targeted lists (OPPAGA Report No. [10-18](#)).

<sup>11</sup> This analysis could not include private programs due to the limited number of private institutions that participate in FETPIP.

<sup>12</sup> The number of specific programs evaluated varied by measure because some programs did not produce completers and therefore would not be evaluated for employment outcomes.



education programs, students must first complete the programs. We assessed completion rates for 308 targeted and 161 non-targeted programs. Programs in the lowest performance quartile had completion rates below 11%, while programs in the highest performing quartile had completion rates greater than 50%.

As shown in Exhibit 1, targeted programs had slightly lower completion rates than non-targeted programs. Slightly under half (48%) of targeted programs had completion rates that fell within the two highest performing quartiles compared to 55% of the non-targeted programs.

### Exhibit 1 Targeted Programs Had Slightly Lower Completion Rates Than Non-Targeted Programs

| Performance Quartiles                              | Percentage of Programs by Quartile |                       |
|--|------------------------------------|-----------------------|
|  | Targeted Programs                  | Non-Targeted Programs |
| <b>Above the Median Level of Performance</b>       | <b>48%</b>                         | <b>55%</b>            |
| <b>Highest Quartile</b>                            |                                    |                       |
| Programs with completion rates exceeding 50%       | 26%                                | 27%                   |
| <b>Medium-High Quartile</b>                        |                                    |                       |
| Programs with completion rates between 24% and 50% | 22%                                | 28%                   |
| <b>Below the Median Level of Performance</b>       | <b>52%</b>                         | <b>45%</b>            |
| <b>Medium-Low Quartile</b>                         |                                    |                       |
| Programs with completion rates between 11% and 24% | 28%                                | 19%                   |
| <b>Lowest Quartile</b>                             |                                    |                       |
| Programs with completion rates less than 11%       | 24%                                | 26%                   |

Source: OPPAGA analysis.

Targeted programs had slightly higher employment rates than non-targeted programs. Graduates of career education programs must obtain a job in the field for which they trained to achieve the benefits of completing the program. As estimated job openings are a key criterion in the

decision of which occupations are placed on the targeted occupations lists, career education programs that train students for these targeted occupations should have better employment outcomes than programs that train students for jobs that are not on the targeted lists. We used FETPIP data to compare the employment rates for 271 targeted and 141 non-targeted programs. However, we were unable to determine whether graduates had obtained jobs in the specific occupation for which they received training due to limitations in FETPIP data.

Programs in the highest performing quartile had employment rates greater than 78%, while programs in the lowest performing quartile had employment rates below 47%. As shown in Exhibit 2, targeted programs had slightly higher employment rates than non-targeted programs. Slightly more than half (52%) of the targeted programs had employment rates that fell within the two highest quartiles, compared to 47% of non-targeted programs.

### Exhibit 2 Targeted Programs Had Slightly Higher Employment Rates Than Non-Targeted Programs

| Performance Quartiles                              | Percentage of Programs by Quartile |                       |
|--|------------------------------------|-----------------------|
|  | Targeted Programs                  | Non-Targeted Programs |
| <b>Above the Median Level of Performance</b>       | <b>52%</b>                         | <b>47%</b>            |
| <b>Highest Quartile</b>                            |                                    |                       |
| Programs with employment rates exceeding 78%       | 24%                                | 26%                   |
| <b>Medium-High Quartile</b>                        |                                    |                       |
| Programs with employment rates between 63% and 78% | 28%                                | 21%                   |
| <b>Below the Median Level of Performance</b>       | <b>48%</b>                         | <b>53%</b>            |
| <b>Medium-Low Quartile</b>                         |                                    |                       |
| Programs with employment rates between 47% and 63% | 26%                                | 22%                   |
| <b>Lowest Quartile</b>                             |                                    |                       |
| Programs with employment rates less than 47%       | 22%                                | 31%                   |

Source: OPPAGA analysis.

Targeted programs had slightly higher graduate earnings than non-targeted programs. Entry-level earnings are also a key criterion for including occupations on the targeted lists. Accordingly, students completing programs that train for targeted occupations should generally have higher earnings than students completing non-targeted programs. We used FETPIP data to compare median annual graduate earnings for 256 targeted and 134 non-targeted programs. Programs in the highest performing quartile had graduate earnings greater than \$35,797, while programs in the lowest performing quartile had graduate earnings below \$23,011.

As shown in Exhibit 3, targeted programs had slightly higher graduate annual earnings than non-targeted programs. Slightly over half (53%) of targeted programs had graduate annual earnings that fell within the two highest quartiles, compared to 44% of non-targeted programs. Also, a much higher percentage of non-targeted programs (40%) fell into the lowest graduate earning quartile than did targeted programs (17%).

**Exhibit 3**  
**A Larger Percentage of Non-Targeted Programs Had Very Low Graduate Annual Earnings**

| Performance Quartiles  | Percentage of Programs by Quartile |                       |
|--|------------------------------------|-----------------------|
|  | Targeted Programs                  | Non-Targeted Programs |
| <b>Above the Median Level of Performance</b>                         | <b>53%</b>                         | <b>44%</b>            |
| <b>Highest Quartile</b>  |                                    |                       |
| Programs with graduate annual earnings exceeding \$35,797            | 25%                                | 25%                   |
| <b>Medium-High Quartile</b>  |                                    |                       |
| Programs with graduate annual earnings between \$28,481 and \$35,797 | 28%                                | 19%                   |
| <b>Below the Median Level of Performance</b>                         | <b>47%</b>                         | <b>56%</b>            |
| <b>Medium-Low Quartile</b>   |                                    |                       |
| Programs with graduate annual earnings between \$23,011 and \$28,481 | 30%                                | 16%                   |
| <b>Lowest Quartile</b>   |                                    |                       |
| Programs with graduate annual earnings less than \$23,011            | 17%                                | 40%                   |

Source: OPPAGA analysis.

***Both the targeted occupations lists and FETPIP have limitations for targeting career education resources***

The targeted occupations lists and FETPIP data have some limitations that reduce their effectiveness as tools for targeting the state’s career education resources. These limitations include difficulties in determining whether job placements and earnings are related to students’ training, the exclusion of self-employed workers from the FETPIP database, limited information on private programs, and delays in identifying promising occupations. As a result of these limitations, the state’s information on promising occupations and the effectiveness of career education training programs is incomplete and can misrepresent student outcomes for some programs.

FETPIP does not precisely identify if program graduates are working in jobs related to their training. Although FETPIP tracks program graduates into the workforce, it provides imprecise data on whether graduates obtain employment in jobs related to their training (i.e., in-field placement). This information is essential for determining whether training programs are successful in meeting the employment needs of specific occupations, and for determining whether students’ outcomes are related to the career education program they completed.

FETPIP uses an employer’s industry designation as a proxy to identify the type of jobs graduates obtain and attempts to identify whether these jobs are related to their training.<sup>13</sup> However, the employers’ industry designations used by FETPIP are broad and may not identify whether graduates actually have obtained jobs related to their training. For example, an individual that completes a pharmacy technician training program and obtains employment in a Walmart pharmacy would not be identified by FETPIP as working in a related occupation because Walmart’s industry designation is ‘Warehouse Clubs and Supercenters.’

<sup>13</sup> FETPIP must use a proxy because the data reported by employers is at the broad industry level and thus does not indicate which specific occupation an employee is working in.

In addition, FETPIP attempts to identify training-related job placement based only on employment data from the fourth quarter of a year. Therefore, if a graduate did not find employment until after the fourth quarter following graduation, he or she would not be identified as working in a training-related job. As a result, FETPIP may be underreporting training-related job placements for program graduates.

The targeted occupations lists and FETPIP do not adequately reflect student outcomes for programs that train for occupations with high rates of self-employment. The targeted lists and FETPIP do not capture student outcomes for program graduates who become self-employed, because they are primarily based on data from employers who pay unemployment compensation taxes. These limitations can result in the incomplete reporting of student outcomes for certain occupations if self-employed workers in those fields have substantially different outcomes than individuals who work for employers.

To determine the potential effect self-employed workers have on job placement rates and earnings, we surveyed individuals currently licensed as massage therapists and cosmetologists in Florida. According to labor market data provided by the Agency for Workforce Innovation, both of these occupations have historically had high self-employment rates (see Appendix C for a listing of the top self-employment occupations in Florida).<sup>14</sup>

*FETPIP likely underreports job placement rates for programs that train for occupations with high rates of self-employment.* Our survey found that the exclusion of self-employed cosmetologists and massage therapists results in a significant underreporting of the job placement rates for these professions. As shown in Exhibit 4, less than half (49%) of the cosmetology program graduates we surveyed were found to be working as cosmetologists for employers; this in-field placement rate increased to 68% when we

included persons who were self-employed in the field. Similarly, only 23% of massage therapy graduates we surveyed were found working for employers, but this placement rate increased to 44% when self-employed massage therapists were included in the analysis. In contrast, FETPIP's reported in-field placement rates for cosmetology and massage therapy graduates were only 29% and 13% respectively.<sup>15</sup>

#### Exhibit 4 Placement Rates for Cosmetology and Massage Therapy Programs Were Significantly Higher When Self-Employment Was Considered

| Training Program | Percentage of Program Graduates Working in a Training-Related Job |                                  |                                 |
|------------------|---|----------------------------------|---------------------------------|
|                  | FETPIP  | OPPAGA Survey                    |                                 |
|                  |   | Only Those Working for Employers | Including Self-Employed Workers |
| Cosmetology      | 29%   | 49%                              | 68%                             |
| Massage Therapy  | 13%   | 23%                              | 44%                             |

Source: OPPAGA survey of 2007-08 public program graduates

*Both targeted occupations lists and FETPIP likely understate the earnings potential for occupations with high rates of self-employment.* Our survey found that self-employed cosmetologists and massage therapists typically had higher hourly wages than their counterparts who were working for employers. As shown in Exhibit 5, self-employed massage therapists earned 52% higher average hourly wages and tips than those who worked for employers; self-employed cosmetologists earned 15% higher average hourly wages and tips.<sup>16</sup>

<sup>14</sup> Our survey results were similar to Agency for Workforce Innovation estimates that massage therapists had a 64% self-employment rate and cosmetologists had a 45% self-employment rate in 2008-09.

<sup>15</sup> While FETPIP lacks placement information on self-employed workers, the Agency for Workforce Innovation does include an estimate of self-employed workers in its overall projections of job growth for an occupation.

<sup>16</sup> Our survey results are not meant to suggest that these two occupations should be on the targeted lists. Rather, we used our survey of these occupations to test whether self-employed workers in certain fields typically have different wages than their counterparts who work for employers.



### Exhibit 5 Self-Employed Cosmetologists and Massage Therapists Had Higher Earnings Than Their Counterparts Who Work for Employers

| Training Program | Average Hourly Wages and Tips |                    |                       |
|------------------|-------------------------------|--------------------|-----------------------|
|                  | Self-Employed                 | Work for Employers | Percentage Difference |
| Cosmetology      | \$15.93                       | \$13.82            | 15% <sup>1</sup>      |
| Massage Therapy  | \$38.54                       | \$25.31            | 52% <sup>1</sup>      |

<sup>1</sup> The differences in wages are statistically significant.

Source: OPPAGA survey.

The state has limited data on the effectiveness of private programs. The state does not collect follow-up data relating to most private career education programs operating in Florida. Only private programs that receive federal Workforce Investment Act funding are required to report information on their graduates to FETPIP for tracking purposes; as a result, only 13% of 2007-08 graduates from private career education programs were tracked by FETPIP.

The Commission for Independent Education annually collects enrollment, completion, and job placement information from all licensed private institutions. However, these institutions report this data in aggregate form and the commission has not established standard definitions for how the institutions should report the data. Without standard definitions or student-level data, the commission cannot ensure that individual private institutions are collecting and reporting critical placement information in a consistent manner.

The targeted occupations lists have some limitations as the sole criteria for targeting career education resources. A final factor that precludes using the targeted occupations lists to target all state career education resources is that the lists provide imprecise information on the demand for and potential benefits of specific career education programs. Our survey of school districts, colleges, and regional workforce boards found that while these providers use the lists as a starting point in analyzing local workforce demands, they typically supplement these projections with additional information due to weaknesses that diminish the overall usefulness of

the lists for targeting career education resources. Survey respondents identified four key limitations in the targeted lists.

- *The occupations on the targeted lists fluctuate from year to year.* The lists identify targeted occupations for a single year only, and the occupations on the lists change from year to year. The same small group of occupations tends to move on and off the list.<sup>17</sup> For example, almost half of the occupations that were added to the statewide targeted list between 2007 and 2009 were also deleted from the list during this period. As a result, school districts and colleges have to be cautious when using the lists for long-range planning, as it takes several years to create a new program and they typically plan program offerings for the next three to five years. It would not be practical for institutions to start a program and then dismantle it each time an occupation appeared on or disappeared from the targeted lists. Such rapid changes would also disrupt students' educational planning.
- *The targeted lists may overstate the need for certain occupations because they do not consider the potential supply of skilled workers.* While the targeted lists consider growth in demand, they do not consider whether or how that demand is being filled. Postsecondary institutions in Florida may be producing sufficient graduates to meet the projected workforce demands. Moreover, Florida's employers do not rely solely on graduates of the state's educational providers to fill job openings, but also hire people trained in other states and countries. If these sources of trained workers are not considered, Florida can run the risk of over-expanding some training programs, thus producing graduates who cannot find jobs for which they were trained.

<sup>17</sup> According to Agency for Workforce Innovation staff, occupations are added or deleted from the targeted list each year primarily because some occupations have characteristics (i.e., projected growth, openings, and wages) that are close to the demand and wage criteria set by the Workforce Estimating Conference. Thus, small changes in the outlook for growth or wages for industries that employ workers in these occupations can affect whether the occupations are included on the list or not.

- *Documenting the need for emerging or fast-growing occupations can be problematic.* Workforce Florida, Inc. requires that additions to the statewide list be supported by documentation of employers' job openings and wages. However, respondents to our surveys of regional workforce boards and training institutions indicated that it can be difficult to document job openings for new and emerging occupations for two primary reasons: (1) the occupation may be associated with an employer/industry that is planning to relocate to Florida but has not made the move yet; or (2) it is a small fast-growing occupation that has too few annual job openings to be included on the list. Institutions need to train students for these emerging fields to provide a workforce to fill these jobs.
- *The targeted lists may not accurately reflect the demand and wages for specific jobs within a broad occupational category.* Some occupational categories used in the targeted lists cover a wide range of jobs with varying wages and training requirements. In some instances, the wages of one or more specific jobs in the occupational category may differ significantly from the overall average wages for the occupation. For example, the 'Emergency Medical Technicians and Paramedics' occupational category is associated with three primary training programs that prepare individuals for different jobs within the occupation: Emergency Medical Technician (Basic), Paramedic, and Emergency Medical Services. These three programs vary in length and in the skills they train individuals to perform.<sup>18</sup> Due to the differences in what these jobs entail, there are significant differences in wages. FETPIP data indicated that 2006-07 Emergency Medical Technician (Basic) program

graduates made an average of \$15.47 per hour, Paramedic program graduates made \$23.97 per hour, and Emergency Medical Services program graduates made \$30.94 per hour.

## Recommendations

We recommend that the Department of Education and the Agency for Workforce Innovation establish a workgroup to identify strategies to improve the effectiveness of the targeted occupations lists and FETPIP as tools for targeting state resources toward the best performing career education programs. At a minimum, the workgroup should recommend options for collecting and incorporating information on self-employed workers, and for improving FETPIP's ability to determine if graduates are working in jobs related to their training.

## Agency Response

In accordance with the provisions of s. 11.51(5), *Florida Statutes*, a draft of our report was submitted to the Commissioner of the Florida Department of Education and the Director of Agency for Workforce Innovation to review and respond. The Department of Education provided informal comments but did not submit a written response. The director of the Agency for Workforce Innovation's written response is reprinted herein in Appendix D

<sup>18</sup> The Emergency Medical Technician program is 250 contact hours in length and trains individuals to provide basic assistance in emergencies (i.e., taking vital signs, giving oxygen, taking patient history, and performing physical exams). The Paramedic program is 1,100 contact hours in length and expands on the EMT (Basic) program by training individuals to start intravenous lifelines, give shots, administer medication, and treat a wide variety of injuries and conditions. The Emergency Medical Services program (73 credit hours, equivalent to 2,190 contact hours) includes Paramedic training and prepares individuals for management and supervisory positions.

## Appendix A

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# Methodology

We used two approaches to evaluate the performance of Florida colleges and school district career education programs. First, we surveyed recent program graduates that train individuals for four occupations and persons working in these occupations. Second, we used existing data to compare the performance of programs that train students for targeted occupations (targeted programs) with the performance of programs that do not train students for targeted occupations (non-targeted programs).

### *Limitations of Existing Data Sources – Survey*

To address the self-employment and training-related job placement limitations in existing data sources, we conducted a survey of individuals, both recent program graduates and individuals working in the profession, to measure the effect of self-employment on wages and placement rates. Our survey addressed whether graduates had obtained employment related to their training, whether they had full-time employment, whether they were self-employed, and their income (including salary and tips). Due to the time and cost of conducting surveys with statistically reliable samples, we focused our analysis on four training programs that train students for occupations not on the targeted occupations lists, were provided by both public and private schools, had high enrollment in public sector schools, and trained students for occupations that tend to have high self-employment and tips. We used the Department of Education's student-level data to identify public program graduates. To identify recent program graduates of private programs and individuals working in the profession, we used data from the Department of Business and Professional Regulation's database for licensed cosmetologists and the Department of Health's databases for licensed massage therapists and certified nursing assistants.<sup>19</sup> As shown in Table A-1, we surveyed nine different sample groups within the four program areas. The various sample groups allowed us to make comparisons between public and private program graduates and occupations.

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<sup>19</sup> Individuals working in both cosmetology and massage therapy must be licensed in order to work in the field. Nursing assistants must be licensed if they work in nursing homes; licensure may be required by employers in other settings.

**Table A-1**  
**Survey Groups Consisted of Both Recent Completers and Individuals Working in Professions**

| Survey Groups   | Sample Pool | Sample Size | Completed Surveys |
|---|-------------|-------------|-------------------|
| <b>Recent Program Completers</b>                      |             |             |                   |
| 1. Cosmetology – Public                               | 642         | 627         | 255               |
| 2. Cosmetology – Private                              | 3,147       | 3,027       | 357               |
| 3. Massage Therapy – Public                           | 155         | 151         | 77                |
| 4. Massage Therapy – Private                          | 2,180       | 2,091       | 413               |
| 5. Phlebotomy   | 677         | 629         | 252               |
| 6. Patient Care <sup>1</sup>                          | 1,200       | 1,083       | 314               |
| <b>Individuals Working in Professions<sup>2</sup></b> |             |             |                   |
| 7. Cosmetology  | 53,914      | 2,902       | 428               |
| 8. Massage Therapy                                    | 28,280      | 2,903       | 471               |
| 9. Patient Care <sup>1</sup>                          | 144,458     | 2,828       | 449               |

<sup>1</sup> The 'Patient Care' group included the following training programs: Patient Care Assistant; Patient Care Technology; Home Health Aide; and Nursing Assistant (Long-term Care).

<sup>2</sup> Because the sample pool was large for the surveys of individuals working in the professions, we drew a random sample of 3,000 for each group to obtain the number of completed responses needed to provide a statistical representation.

Source: OPPAGA survey of career education training programs.

### ***Program Outcome Analysis – Review of Student-Level Data***

To determine whether targeted career education programs have better student outcomes than non-targeted programs, we compared the performance of individual programs across several key measures. We first used existing department data to calculate the completion rate for each program, and we used FETPIP employment data to calculate employment rates and median earnings for the graduates of each program. The number of specific programs assessed varied from 390 to 469 depending on the measure. We ranked each program's performance from lowest to highest performing relative to other programs and grouped the programs into performance quartiles. We analyzed these quartile rankings to determine if targeted programs had substantially better outcomes than the non-targeted programs.

**Targeted Occupations List.** Targeted occupations lists are developed each year at the state and regional levels. As these lists may change each year, we defined placement on a targeted list as a program being included on the statewide list over a three-year period (2006-07, 2007-08, and 2008-09) and included on the regional lists of over half of the regional workforce boards in 2008-09. We did not include occupations on supplemental statewide lists as these lists are used to address a region-specific or temporary need.

**Completion.** We calculated the percent of program participants who completed each program in 2006-07. We computed student completion rates as the percentage of students who graduated from the programs compared to the number of students who left the program without completion during the year (identified as those students who were not listed in the data for two consecutive academic terms). Although some career education programs, such as cosmetology, are based on 'occupation completion points', we defined completion to mean that a student completed the entire program in which they were enrolled.

**Employment.** For each program, we calculated the percentage of 2006-07 graduates who were found to have full-time employment. Individuals had to have annual earnings above the minimum wage to be considered working full time.

**Earnings.** To calculate annual earnings, we first averaged each full-time graduate's quarterly earnings after completing the program and multiplied it by four. We then calculated the median annual earnings of each program's graduates.

## Appendix B

# Individual Program Performance

School district and college career education programs are organized into 16 different career clusters. These career clusters are federally recognized occupational categories with broad industry-validated knowledge and skills statements that define what students need to know and be able to do in order to achieve success in a chosen field. The tables below provide program-specific performance information for five career clusters that had at least four programs that were included on the targeted occupations lists (trained students for occupations on the lists) as well as at least four programs that trained students for occupations that were not on the targeted occupations lists. Under each performance indicator is the percentile rank for each program in relation to the other programs. Individual programs linked to the targeted lists have low rankings on some performance indicators, while some programs not linked to the lists rank high on some of the indicators.

Human Services. Table B-1 shows that the targeted 'Human Services' programs ranked slightly higher on employment and earning outcomes, but tended to have lower completion rates. For example, although the 'Human Services' associate in applied sciences program was at top 80<sup>th</sup> percentile in employment rates, it was at the bottom 14<sup>th</sup> percentile in completion rates.

**Table B-1**  
**Career Cluster: Human Services**

| Career Cluster: Human Services |                                 |             |              | Percentile Rankings Compared to the Performance of All Other Career Education Programs (Higher is Better) |                         |                       |
|--------------------------------|---------------------------------|-------------|--------------|---|-------------------------|-----------------------|
|                                | Training Program                | Clock Hours | Credit Hours | Completion <sup>1</sup>   | Employment <sup>2</sup> | Earnings <sup>3</sup> |
| Targeted Training Programs     | Addiction Studies (PSVC)        |             | 39           | 6   |                         |                       |
|                                | Human Services (AS)             |             | 65           | 33  | 43                      | 40                    |
|                                | Human Services (AAS)            |             | 65           | 14  | 80                      | 35                    |
|                                | Human Services Assistant (PSVC) |             | 27           | 33  | 3                       |                       |
| Non-Targeted Training Programs | Barbering                       | 1,200       |              | 55  | 14                      | 14                    |
|                                | Cosmetology                     | 1,200       |              | 67  | 16                      | 4                     |
|                                | Facials Specialty               | 260         |              | 88  | 19                      | 30                    |
|                                | Nails Specialty                 | 240         |              | 80  | 10                      | 8                     |

<sup>1</sup> Percentage of students who were full program graduates at the time they left the programs in 2006-07.

<sup>2</sup> Percentage of full program graduates who met the earnings threshold for full-time employment.

<sup>3</sup> Median annual earnings of full-time workers after completing the training programs.

Source: OPPAGA analysis.



Health Science. Table B-2 shows that targeted and non-targeted 'Health Science' programs had fairly mixed performance on the three outcome measures. For example, while targeted programs typically did better on employment rates and annual earnings, some targeted programs such as 'Medical Assisting' had low earnings (18<sup>th</sup> percentile). Non-targeted programs with shorter program lengths (i.e., 'Nursing Assistant' and 'Home Health Aide') tended to have low rankings for annual earnings.

**Table B-2**  
**Career Cluster: Health Science**

| Career Cluster: Health Science |   |             |              | Percentile Rankings Compared to the Performance of All Other Career Education Programs (Higher is Better) |                         |                       |
|--------------------------------|---|-------------|--------------|---|-------------------------|-----------------------|
| Training Program               |   | Clock Hours | Credit Hours | Completion <sup>1</sup>   | Employment <sup>2</sup> | Earnings <sup>3</sup> |
| Targeted Training Programs     | Dental Hygiene (AS)                     |             | 88           | 69  | 80                      | 76                    |
|                                | Emergency Med Services (AS)             |             | 73           | 53  | 86                      | 96                    |
|                                | Emergency Medical Technician (ATD)      | 250         | 11           | 89  | 56                      | 38                    |
|                                | Medical Assisting                       | 1,300       |              | 68  | 57                      | 18                    |
|                                | Medical Information Coder/Biller (PSVC) |             | 34           | 59  | 49                      | 21                    |
|                                | Nursing (AS)                            |             | 72           | 68  | 80                      | 86                    |
|                                | Paramedic (PSVC)                        |             | 42           | 86  | 86                      | 89                    |
|                                | Physical Therapist Assistant (AS)       |             | 74           | 65  | 81                      | 74                    |
|                                | Practical Nursing                       | 1,350       |              | 83  | 78                      | 55                    |
|                                | Radiography (AS)                        |             | 77           | 58  | 87                      | 79                    |
| Non-Targeted Training Programs | Funeral Services (AS)                   |             | 72           | 61  | 75                      | 51                    |
|                                | Health Unit Coordinator (Postsecondary) | 500         |              | 78  | 70                      | 29                    |
|                                | Home Health Aide (Postsecondary)        | 165         |              | 83  | 23                      | 7                     |
|                                | Massage Therapy                         | 750         |              | 87  | 22                      | 27                    |
|                                | Nursing Assistant (Long-Term Care)      | 120         |              | 86  | 27                      | 9                     |
|                                | Optician (AAS)                          |             | 72           | 54  | 87                      | 78                    |
|                                | Patient Care Technician                 | 600         |              | 49  | 28                      | 9                     |
|                                | Pharmacy Technician                     | 1,050       |              | 66  | 40                      | 33                    |
|                                | Phlebotomy                              | 165         |              | 82  | 28                      | 21                    |
|                                | Radiation Therapy (AS)                  |             | 77           | 71  | 84                      | 90                    |

<sup>1</sup> Percentage of students who were full program graduates at the time they left the programs in 2006-07.

<sup>2</sup> Percentage of full program graduates who met the earnings threshold for full-time employment.

<sup>3</sup> Median annual earnings of full-time workers after completing the training programs.

Source: OPPAGA analysis.

Public Safety. Table B-3 shows that, in general, both targeted and non-targeted 'Public Safety' programs were ranked relatively high for all three measures. One exception was 'Private Security Officer' (a non-targeted program), which ranked low on all three measures.

**Table B-3**  
**Career Cluster: Public Safety**

| Career Cluster: Public Safety  |                                   |             |              | Percentile Rankings Compared to the Performance of All Other Career Education Programs (Higher is Better) |                         |                       |
|--------------------------------|-----------------------------------|-------------|--------------|---|-------------------------|-----------------------|
|                                | Training Program                  | Clock Hours | Credit Hours | Completion <sup>1</sup>   | Employment <sup>2</sup> | Earnings <sup>3</sup> |
| Targeted Training Programs     | Correctional Officer              | 532         |              | 93  | 90                      | 62                    |
|                                | Criminal Justice Technology (AS)  |             | 64           | 28  | 68                      | 69                    |
|                                | Criminal Justice Technology (AAS) |             | 64           | 23  | 69                      | 84                    |
|                                | Fire Fighter II                   | 450         |              | 82  | 78                      | 61                    |
|                                | Fire Science Technology (AS)      |             | 60           | 37  | 83                      | 99                    |
|                                | Law Enforcement Officer           | 770         |              | 89  | 85                      | 81                    |
|                                | Legal Assisting (AS)              |             | 64           | 46  | 63                      | 49                    |
| Non-Targeted Training Programs | Bail Bond Agent                   | 120         |              | 95  | 25                      | 39                    |
|                                | Correctional Probation Officer    | 412         |              | 95  | 91                      | 70                    |
|                                | Crime Scene Technician (PSVC)     |             | 28           | 66  | 62                      | 54                    |
|                                | Crime Scene Technology (AS)       |             | 60           | 42  | 48                      | 54                    |
|                                | Fire Inspector I                  | 200         |              | 43  | 78                      | 71                    |
|                                | Police Service Aide               | 206         |              | 97  | 90                      | 72                    |
|                                | Private Security Officer          | 68          |              | 28  | 37                      | 24                    |

<sup>1</sup> Percentage of students who were full program graduates at the time they left the programs in 2006-07.

<sup>2</sup> Percentage of full program graduates who met the earnings threshold for full-time employment.

<sup>3</sup> Median annual earnings of full-time workers after completing the training programs.

Source: OPPAGA analysis.

Transportation, Distribution, and Logistics. Table B-4 shows that the targeted and non-targeted 'Transportation'-related programs were mixed on the various outcome measures. Both groups of programs were ranked low to moderate on earnings; there were no programs above the 75<sup>th</sup> percentile in earnings.

Table B-4

## Career Cluster: Transportation, Distribution, and Logistics

| Career Cluster: Transportation, Distribution, and Logistics |  |             |              | Percentile Rankings Compared to the Performance of All Other Career Education Programs (Higher is Better) |                         |                       |
|---|--|-------------|--------------|---|-------------------------|-----------------------|
|   | Training Program                               | Clock Hours | Credit Hours | Completion <sup>1</sup>   | Employment <sup>2</sup> | Earnings <sup>3</sup> |
| Targeted Training Programs                                  | Advanced Automotive Technology                 | 2,250       |              | 60  | 89                      | 53                    |
|   | Automotive Collision Repair And Refinishing    | 1,400       |              | 41  | 26                      | 23                    |
|   | Automotive Service Management Technology (AAS) |             | 68           | 45  | 74                      | 53                    |
|   | Automotive Service Technology                  | 1,800       |              | 35  | 47                      | 32                    |
|   | Commercial Vehicle Driving                     | 320         |              | 87  | 45                      | 52                    |
|   | Heavy Duty Truck And Bus Mechanics             | 1,680       |              | 43  | 56                      | 59                    |
| Non-Targeted Training Programs                              | Aircraft Airframe Mechanics                    | 1,440       |              | 62  | 54                      | 71                    |
|   | Aircraft Powerplant Mechanics                  | 1,440       |              | 55  | 60                      | 57                    |
|   | Aviation Administration (AS)                   |             | 64           | 84  | 26                      | 22                    |
|   | Marine Service Technology                      | 1,350       |              | 47  | 35                      | 22                    |
|   | Professional Pilot Technology (AS)             |             | 64           | 26  | 25                      | 18                    |
|   | School Bus Driver Training                     | 40          |              | 93  | 68                      | 16                    |

<sup>1</sup> Percentage of students who were full program graduates at the time they left the programs in 2006-07.

<sup>2</sup> Percentage of full program graduates who met the earnings threshold for full-time employment.

<sup>3</sup> Median annual earnings of full-time workers after completing the training programs.

Source: OPPAGA analysis.

Arts, A/V Technology, and Communication. Table B-5 shows that the targeted and non-targeted 'Communication' related programs were mixed on the outcome measures. However, both groups of programs generally ranked relatively low on all outcome measures.

**Table B-5**  
**Career Cluster: Arts, A/V Technology, and Communication**

| Career Cluster: Arts, A/V Technology, and Communication |   |             |              | Percentile Rankings Compared to the Performance of All Other Career Education Programs (Higher is Better) |                         |                       |
|---|---|-------------|--------------|---|-------------------------|-----------------------|
| Training Program  |   | Clock Hours | Credit Hours | Completion <sup>1</sup>   | Employment <sup>2</sup> | Earnings <sup>3</sup> |
| Targeted Training Programs                              | Digital/Multimedia Technology (AS)      |             | 64           | 27  | 47                      | 27                    |
|   | Film Production Technology (AS)         |             | 64           | 32  | 24                      | 28                    |
|   | Interior Design Technology (AS)         |             | 70           | 41  | 56                      | 58                    |
|   | Music Production Technology (AS)        |             | 63           | 23  | 11                      | 34                    |
|   | Theater & Entertainment Technology (AS) |             | 64           | 49  | 8                       | 3                     |
| Non-Targeted Training Programs                          | Commercial Photography Technology       | 1,650       |              | 66  | 9                       | 36                    |
|   | Photographic Technology (AS)            |             | 64           | 58  | 7                       | 37                    |
|   | Photographic Technology (AAS)           |             | 64           | 24  | 41                      | 21                    |
|   | Sewing Technology And Services          | 900         |              | 22  | 16                      | 7                     |
|   | Television & Media Production           |             | 64           | 17  | 13                      | 21                    |

<sup>1</sup> Percentage of students who were full program graduates at the time they left the program in 2006-07.

<sup>2</sup> Percentage of full program graduates who met the earnings threshold for full-time employments.

<sup>3</sup> Median annual earnings of full-time workers after completing the training programs.

Source: OPPAGA analysis.

## Appendix C

# High Self-Employment Occupations

The targeted occupations lists and FETPIP omit self-employed workers because both systems are based on employers who pay unemployment compensation taxes. This omission may result in the misrepresentation of student outcomes for certain occupations if self-employed workers in those occupations have substantially different outcomes than individuals who work for employers. Table C-1 shows the targeted occupations with high self-employment rates, as estimated by the Agency for Workforce Innovation. These occupations include Real Estate Agents, Construction Managers, and Carpenters. Table C-2 shows that high self-employment occupations that are not on the targeted list include Farmers, Cosmetologists, Massage Therapists, and Musicians.

**Table C-1**  
**The 30 Targeted Occupations with Highest Self-Employment Rates**

| Occupation  | Total Employment | Number of Workers Self-Employed | Self-Employment Rate |
|---|------------------|---------------------------------|----------------------|
| Real Estate Brokers   | 13,852           | 8,693                           | 63%                  |
| Real Estate Sales Agents                                      | 65,855           | 39,258                          | 60%                  |
| Construction Managers   | 40,150           | 22,639                          | 56%                  |
| Property, Real Estate, and Community Association Managers     | 21,210           | 10,598                          | 50%                  |
| First-Line Supervisors of Non-Retail Sales Workers            | 35,659           | 16,094                          | 45%                  |
| Food Service Managers   | 16,203           | 7,254                           | 45%                  |
| First-Line Supervision, of Landscaping and Groundskeeping     | 14,120           | 6,179                           | 44%                  |
| Painters, Construction and Maintenance                        | 32,879           | 13,967                          | 42%                  |
| First-Line Supervisors of Personal Service Workers            | 13,966           | 5,313                           | 38%                  |
| First-Line Supervisors of Retail Sales Workers                | 100,339          | 34,236                          | 34%                  |
| Tile and Marble Setters                                       | 6,453            | 2,165                           | 34%                  |
| Appraisers and Assessors of Real Estate                       | 7,417            | 2,407                           | 32%                  |
| Carpenters  | 79,636           | 25,109                          | 32%                  |
| First-Line Supervision of Housekeeping and Janitorial Workers | 12,084           | 3,706                           | 31%                  |
| Personal Financial Advisors                                   | 20,934           | 6,070                           | 29%                  |
| Interior Designers  | 5,972            | 1,528                           | 26%                  |
| Graphic Designers   | 16,718           | 4,201                           | 25%                  |
| Insurance Sales Agents  | 49,331           | 12,369                          | 25%                  |
| Brickmasons and Blockmasons                                   | 10,260           | 2,496                           | 24%                  |
| First-Line Supervisors of Construction and Extraction Workers | 64,816           | 15,698                          | 24%                  |
| Drywall and Ceiling Tile Installers                           | 9,777            | 2,242                           | 23%                  |
| Coaches and Scouts  | 10,435           | 2,316                           | 22%                  |
| Self-Enrichment Education Teachers                            | 14,252           | 3,089                           | 22%                  |
| Roofers   | 15,639           | 3,093                           | 20%                  |
| Network Systems and Data Communications Analysts              | 23,278           | 3,988                           | 17%                  |
| Securities, and Financial Services Sales Agents               | 20,301           | 3,472                           | 17%                  |
| Automotive Service Technicians and Mechanics                  | 53,447           | 8,832                           | 17%                  |
| Plasterers and Stucco Masons                                  | 5,727            | 895                             | 16%                  |
| Audio and Video Equipment Technicians                         | 4,263            | 538                             | 13%                  |
| Heating, A.C., and Refrigeration Mechanics and Installers     | 26,295           | 3,317                           | 13%                  |

Source: OPPAGA analysis of the Agency for Workforce Innovation's self-employment estimates.



**Table C-2**  
**The 30 Non-Targeted Occupations with Highest Self-Employment Rates**

| Occupation  | Total Employment | Number of Workers Self-Employed | Self-Employment Rate |
|---|------------------|---------------------------------|----------------------|
| Farmers and Ranchers  | 46,505           | 46,494                          | 100%                 |
| Door-To-Door Sales, Street Vendors, and Related Workers       | 9,257            | 8,742                           | 94%                  |
| Barbers   | 1,898            | 1,552                           | 82%                  |
| Multi-Media Artists and Animators                             | 2,585            | 1,781                           | 69%                  |
| Writers and Authors   | 5,963            | 3,937                           | 66%                  |
| Fishers and Related Fishing Workers                           | 627              | 413                             | 66%                  |
| Massage Therapists  | 11,989           | 7,693                           | 64%                  |
| Therapists, All Other   | 5,466            | 3,490                           | 64%                  |
| Fine Artists, Including Painters, Sculptors, and Illustrators | 3,700            | 2,300                           | 62%                  |
| Managers, All Other   | 38,558           | 23,090                          | 60%                  |
| Sewers, Hand  | 982              | 584                             | 59%                  |
| Art Directors   | 2,644            | 1,552                           | 59%                  |
| Animal Trainers   | 1,615            | 932                             | 58%                  |
| Agents and Business Managers of Artists and Entertainers      | 1,179            | 654                             | 55%                  |
| Shoe and Leather Workers and Repairers                        | 399              | 219                             | 55%                  |
| Photographers   | 8,483            | 4,652                           | 55%                  |
| Lodging Managers  | 4,149            | 2,179                           | 53%                  |
| Jewelers and Precious Stone and Metal Workers                 | 4,620            | 2,380                           | 52%                  |
| Animal Breeders   | 316              | 161                             | 51%                  |
| Chiropractors   | 4,618            | 2,346                           | 51%                  |
| Carpet Installers   | 3,442            | 1,674                           | 49%                  |
| Musicians and Singers   | 15,783           | 7,636                           | 48%                  |
| Floor Layers, Except Carpet, Wood, and Hard Tiles             | 2,290            | 1,085                           | 47%                  |
| Shampooers  | 2,140            | 993                             | 46%                  |
| Craft Artists   | 193              | 87                              | 45%                  |
| Tailors, Dressmakers, and Custom Sewers                       | 3,648            | 1,641                           | 45%                  |
| Floor Sanders and Finishers                                   | 38               | 17                              | 45%                  |
| Hairdressers, Hairstylists, and Cosmetologists                | 42,385           | 18,952                          | 45%                  |
| Music Directors and Composers                                 | 5,945            | 2,611                           | 44%                  |
| Woodworkers, All Other  | 1,341            | 584                             | 44%                  |

Source: OPPAGA analysis of the Agency for Workforce Innovation's self-employment estimates.

## Appendix D

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Charlie Crist  
Governor  
Cynthia R. Lorenzo  
Director

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March 2, 2010

Mr. Gary R. VanLandingham, Director  
Office of Program Policy Analysis and Accountability  
Room 312, Claude Pepper Building  
111 West Madison Street  
Tallahassee, Florida 32399-1475

Dear Mr. VanLandingham:

Pursuant to Section 11.51(5), Florida Statutes, we have prepared the attached written statement of response to the preliminary findings and conclusions contained in your report on the Targeted Occupations Lists (TOL).

We are pleased to offer this response and hope that it satisfies your expectations and all requirements that are statutorily mandated. We would like to request that this agency response be included as part of the report. If you have any questions or require additional information, please contact James F. Mathews, Inspector General at (850) 245-7141.

Sincerely,

Barbara K. Griffin  
Assistant Director

BKG/js

Attachment

**Agency for Workforce Innovation**

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**Florida Agency for Workforce Innovation**  
**Response to OPPAGA Report**  
**On Use of the Targeted Occupations Lists to Direct All State Funding for Career Education**  
**March 2010**

- **Nonexclusive use of TOL:** The Agency for Workforce Innovation (AWI) concurs with the principle recommendation of OPPAGA that Florida should not use the TOL exclusively to direct all state funding for career education programs. The list is only one of several pieces of information needed to make informed decisions about the funding for career education programs in Florida. Additional information on labor supply, job vacancies, internet job postings, program completer outcomes, new and emerging occupations and other unmet training needs for economic development need to be included. These are critical pieces of supplemental information that should be used in conjunction with the TOL for determining the funding decisions for career education programs. This additional information needs to include input from the workforce system, education, businesses, and economic development at both the state and local levels in order to be complete as possible so accurate funding decisions can be made.
  
- **Business Cycle and Coverage Differences Impact the Performance of the TOL:** Florida is experiencing a deep recession which started in 2006-2007. The TOL is based on projections eight years into the future. The reasons occupations were initially included in the TOL projections are that they were already performing better than the non-TOL occupations. These projections for the TOL out eight years assume an economic recovery. In Florida, currently only the healthcare industry is growing. Many of the occupations on the TOL are in decline and many of these occupations have been more adversely impacted than non-TOL occupations, especially in construction. The TOL denotes occupations that are likely in decline due to the recession. Until the effect of the business cycle can be filtered out of the findings, it will be virtually impossible to truly evaluate the current planning and funding policies of Florida's career education programs. An important and noteworthy difference between the AWI TOL and the OPPAGA study is that the TOL projections represent the universe of employment data while the OPPAGA study used only training completers data (which are a subset of the universe of employment). This coverage difference and the impact of the business cycle will result in different research findings.
  
- **Data Quality of Self-Employed Wages:** Wages for self employed workers are difficult to measure in the labor market because they are not represented in an accessible administrative database. The OPPAGA report states that the TOL understates the

earnings for self employed workers. Self employed (full and part time) represent only eight percent of total employment in the projections. Wages for self employed are imputed from survey responses for wage and salary workers. The statistical process used to produce these wages for more than 90 percent of the labor market are based on a statewide sample of 63,000 Florida employers, representing more than 4.6 million workers or 62 percent of the total nonagricultural employment in the state. The survey uses a probability sample with a required response rate of 75 percent. Because of the vast size of this employer survey, the occupational wage estimates produced by this survey are valid representations of what the labor market is willing to pay for skills regardless of employment status. The examples of self employed used by OPPAGA were easier to identify since they are available from license registries. However, surveying the universe of self employed is much more difficult since many are not licensed. It is also important to note that surveying the self employed is not a funded activity.

- **TOL Stability:** The report states that the occupations on the targeted lists fluctuate from year to year. Occupations are added and deleted from the targeted list each year primarily because some occupations have occupational characteristics (projected growth, openings, and wages) that hover around the high demand/high wage criteria set by the Workforce Estimating Conference. Therefore, small changes in the outlook for the growth in industries that employ these occupations, combined with fluctuations in wage growth, cause occupations to either be added or deleted from the list. Between 2007 and 2009 the net change in the percentage of occupations that were added or deleted from the list ranged from 1.9 percent in 2007 to 5.4 percent in 2009, meaning at least 95 percent of the occupations on the targeted list remain the same from year to year. As a result, we conclude that the occupational lists have very little fluctuation year to year. Fluctuations indicate that the lists are reflective of market change which is a major goal of the process.
- **TOL and Supply:** The OPPAGA report states that the TOL may overstate the need for certain occupations because they do not consider the potential supply of skilled workers. Based on the methodology used to project occupational demand, the supply of workers should have no bearing on the estimate of an occupation's future demand, but may have a bearing on whether to train new workers in the occupation. The AWI forecast is not a projection of excess demand, but a projection of total demand irrespective of supply. However, the potential supply of workers should be taken into account when regional workforce boards are deciding whether to send clients for training or a training provider is deciding on whether to expand its training offerings for a given occupation. In addition, supply data do not exist except for training completer data which is not representative of the universe of supply.

- **New and Emerging Occupations:** The statement that the targeted lists do not include emerging occupations and lag behind new business is handled by the regional review and TOL modification process. New and emerging occupations are approved in most cases if they are from the Enterprise Florida targeted industry clusters (most of which are new and emerging). Regional boards can recommend additions to the TOL related to companies planning to relocate and for companies having a small number of openings.

#### Conclusions

- **In order to provide a full and accurate picture of the Florida system, the OPPAGA report should also include positive attributes in addition to data limitations/shortcomings.** Florida has the most comprehensive, detailed, and current data in the nation for the workforce and education system to evaluate and plan training programs. No other state has a wage record follow up system with a long development cycle and detailed findings like FETPIP. Florida updates projections each year and provides separate reports for each of the 24 regional workforce boards which greatly exceed federal contract deliverables. No other state updates projections annually or provides the level of geographic detail. Florida is unique in its process of including regional workforce boards in the review and update process to the regional lists. Florida updates wage data quarterly, no other state adheres to this frequency of updates. The report fails to point out the wealth of data that Florida has for training program planning and evaluation or the strength and inclusiveness of the review process.
- Using the results of OPPAGA's own analysis, the results obtained by the workforce system are much better than reflected in this report.
  - **Exhibit 2 – Targeted programs had slightly higher employment rates than non-targeted programs.** 78% of the targeted programs had employment rates higher than 47% versus only 69% of the non-targeted programs.
  - **Exhibit 3 – A Larger percentage of non-targeted programs had very low graduate annual earnings.** 83% of the targeted programs showed graduate annual earnings higher than \$23,011 (which is \$11.06 hourly or higher), versus only 60% of the non-targeted programs.



# *The Florida Legislature*

## *Office of Program Policy Analysis and Government Accountability*



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