A User Guide to
DEO State College Projections
Bureau of Labor Market Statistics

Our Mission is to Produce, Analyze, and Deliver Labor Statistics to Improve Economic Decision-Making

• Employment data is the state’s most important economic indicator

• Data is collected under Federal/State Cooperative Statistical Programs

• Comparable nationwide for all states, counties, and metro areas

• Collected through a combination of employer surveys, modeling, and administrative records

Thanks to Florida employers—without them we would not be able to provide data
How Do We Fulfill this Mission?

**Produce**
- Quarterly Census of Employment & Wage
- Current Employment Statistics
- Local Area Unemployment Statistics
- Occupational Employment Statistics & Wages
- Projections

**Analyze**
- Economic Analysis Unit
- Program data requests

**Deliver**
- Websites
- Monthly data releases
- Presentations

**FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY**
Projections Overview

• Florida’s Bureau of Labor Market Statistics (LMS) produces annually 8-year employment projections for all industries and occupations

• The data used to create these projections are:
  - Quarterly Census of Employment and Wages (QCEW)
  - Occupational Employment Statistics (OES)
  - Current Population Survey (CPS)
What is QCEW?

• QCEW measures employment and wages by industry
• It includes all firms covered by Reemployment Assistance (RA)
  ➢ Does not include self-employed or other non-covered workers
  ➢ Collects individual worksite data from multi-establishment employers
• Important to compare same quarter over the year or annual averages
• Estimates are produced for the state, metropolitan statistical areas (MSAs), counties, and workforce regions
• QCEW serves as the sampling frame and benchmark for establishment-based statistical surveys such as OES
QCEW Process

Employers to Revenue
- Employers report RA tax data to the Department of Revenue, including:
  - Total employment for the quarter
  - Total wages for the quarter

Revenue to LMS
- Department of Revenue provides LMS with 3 tax record extracts
  - 2-3 months from the end of quarter

LMS to Public
- LMS edits data:
  - Calls employers to verify, assign industry codes to new employers, Annual Refiling survey, Multi-worksite Report
  - Publish 6 months from the end of quarter
  - Submit micro-data to Bureau of Labor Statistics which is used as sample frame for surveys
What is OES?

- OES measures employment and wages for all full-time and part-time workers in nonfarm industries
  - OES covers each occupation and industry
- Over 20,000 establishments are surveyed each year, representing more than 1.4 million employees
- Estimates are produced for the state, MSAs, large counties, workforce regions, and 3 balance of state areas (non-metro counties) published annually
- Final estimates used to calculate the occupational employment distributions (staffing patterns) for each industry in each area
OES Process

**Data Collection**
- BLS selects a sample of employers by size, industry and MSA from QCEW
- Two survey panels are collected each year by mail, phone and web
- Asks employers to provide total employment and the distribution of that employment by occupation and wage range

**Estimation**
- Over 20,000 establishments are surveyed each year, representing more than 1.4 million employees
- The total 3 year sample represents more than 5.1 million employees
- Employment and wage estimates are based on a full 3-years of sample data

**Projections**
- Final estimates for each occupation within each industry and area are used to calculate the occupational employment distributions (staffing patterns) for each industry in each area
- This serves as the basis for Industry and Occupational Employment Projections
What is CPS?

• **CPS is the primary nationwide monthly survey measuring labor force statistics for the entire U.S. population**
  - Statistics include unemployment rate, employment counts, earnings, as well as extensive demographic data
• **50,000 households are surveyed each month.**
• **Estimates are produced for all states, MSAs and counties**
New Item in 2017 – Separations Methodology

- Projections produced prior to 2016 had several issues:
  - Old method primarily captured openings due to those exiting the labor force, thus undercounting total available jobs in an occupation
  - Old method failed to capture demographic variables (age, sex, etc.)
  - Old method was indirect at best by measuring employment changes by age groups instead of individual persons
  - Required 10 years of data to produce estimates, therefore it was slow in responding to changes in occupational definitions

![Replacement Method Table]

GROWTH OPENINGS 30,306  REPLACEMENT OPENINGS 34,943  TOTAL OPENINGS 62,249
New Item in 2017 – Separations Methodology

• Projections produced in 2017 now address previous issues:

  ➢ New method is regression-based and statistically more robust

  ➢ New method incorporates demographic variables in its model and other longitudinal data from the CPS monthly surveys

  ➢ New method more accurately accounts for future occupational change by incorporating employment projections data, also from OES

  ➢ New method can quickly adjust to new occupations added to the classification system and can more accurately estimate occupations with small employment levels

### Separations Method

<table>
<thead>
<tr>
<th>GROWTH OPENINGS</th>
<th>TRANSFERS</th>
<th>EXITS</th>
<th>TOTAL OPENINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,306</td>
<td>36,457</td>
<td>47,032</td>
<td>113,795</td>
</tr>
</tbody>
</table>
New Item – Separations Methodology

**Old Replacement Method**

- Growth OPENINGS: 30,306
- Replacement OPENINGS: 34,943
- Total OPENINGS: 62,249

**New Separations Method**

- Growth OPENINGS: 30,306
- TRANSFERS: 36,457
- EXITS: 47,032
- Total OPENINGS: 113,795
• This Guide will walk through the various data elements in the spreadsheets prepared by DEO for the employment projections data.

• This portal can be found here: http://www.floridajobs.org/lms/collegeportal
## Occupation Code and Title

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>110000</td>
<td><strong>Total, All Occupations</strong></td>
</tr>
<tr>
<td>111000</td>
<td>Management Occupations</td>
</tr>
<tr>
<td>111011</td>
<td>Chief Executives</td>
</tr>
<tr>
<td>111021</td>
<td>General and Operations Managers</td>
</tr>
<tr>
<td>111031</td>
<td>Legislators</td>
</tr>
<tr>
<td>112000</td>
<td>Marketing, Public Relations &amp; Sales Managers</td>
</tr>
<tr>
<td>112011</td>
<td>Advertising and Promotions Managers</td>
</tr>
<tr>
<td>112021</td>
<td>Marketing Managers</td>
</tr>
<tr>
<td>112022</td>
<td>Sales Managers</td>
</tr>
<tr>
<td>112031</td>
<td>Public Relations and Fundraising Managers</td>
</tr>
<tr>
<td>113000</td>
<td>Operations Specialties Managers</td>
</tr>
<tr>
<td>113011</td>
<td>Administrative Services Managers</td>
</tr>
<tr>
<td>113021</td>
<td>Computer and Information Systems Managers</td>
</tr>
<tr>
<td>113031</td>
<td>Financial Managers</td>
</tr>
<tr>
<td>113051</td>
<td>Industrial Production Managers</td>
</tr>
<tr>
<td>113061</td>
<td>Purchasing Managers</td>
</tr>
<tr>
<td>113071</td>
<td>Transportation, Storage, and Distribution Managers</td>
</tr>
<tr>
<td>113111</td>
<td>Compensation and Benefits Managers</td>
</tr>
<tr>
<td>113121</td>
<td>Human Resources Managers</td>
</tr>
<tr>
<td>113131</td>
<td>Training and Development Managers</td>
</tr>
</tbody>
</table>

- **Columns A & B show the Standard Occupation Classification (SOC) code for each occupation and the title associated with that code.** The 2010 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data.

- **All workers are classified into one of 840 detailed occupations according to their occupational definition.**
### Employment: 2017-2025

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>9,316,220</td>
<td>10,366,167</td>
</tr>
<tr>
<td></td>
<td>413,213</td>
<td>454,054</td>
</tr>
<tr>
<td></td>
<td>104,605</td>
<td>116,514</td>
</tr>
<tr>
<td></td>
<td>20,000</td>
<td>21,379</td>
</tr>
<tr>
<td></td>
<td>82,913</td>
<td>93,393</td>
</tr>
<tr>
<td></td>
<td>1,692</td>
<td>1,742</td>
</tr>
<tr>
<td></td>
<td>26,240</td>
<td>29,580</td>
</tr>
<tr>
<td></td>
<td>865</td>
<td>964</td>
</tr>
<tr>
<td></td>
<td>8,336</td>
<td>9,705</td>
</tr>
<tr>
<td></td>
<td>14,475</td>
<td>16,061</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,850</td>
</tr>
<tr>
<td>2025</td>
<td>65,323</td>
<td>73,482</td>
</tr>
<tr>
<td></td>
<td>11,319</td>
<td>12,799</td>
</tr>
<tr>
<td></td>
<td>12,257</td>
<td>14,470</td>
</tr>
<tr>
<td></td>
<td>22,399</td>
<td>24,967</td>
</tr>
<tr>
<td></td>
<td>5,051</td>
<td>5,277</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,832</td>
</tr>
</tbody>
</table>

- Columns C & D show employment for each occupation in the base year and the projected employment level.
- Column C is the base year and the numbers come from industry employment levels captured in QCEW data and other sources. The occupational numbers are based on staffing ratios collected from OES survey data.
  - The staffing ratios are unique to Florida and are revised every year.
## Employment: 2017-2025

<table>
<thead>
<tr>
<th>Employment</th>
<th>2017</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>9,316,220</td>
<td>10,366,167</td>
</tr>
<tr>
<td>D</td>
<td>413,213</td>
<td>454,054</td>
</tr>
<tr>
<td></td>
<td>104,605</td>
<td>116,514</td>
</tr>
<tr>
<td></td>
<td>20,000</td>
<td>21,379</td>
</tr>
<tr>
<td></td>
<td>82,913</td>
<td>93,393</td>
</tr>
<tr>
<td></td>
<td>1,692</td>
<td>1,742</td>
</tr>
<tr>
<td></td>
<td>26,240</td>
<td>29,580</td>
</tr>
<tr>
<td></td>
<td>865</td>
<td>964</td>
</tr>
<tr>
<td></td>
<td>8,336</td>
<td>9,705</td>
</tr>
<tr>
<td></td>
<td>14,475</td>
<td>16,061</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,850</td>
</tr>
<tr>
<td></td>
<td>65,323</td>
<td>73,482</td>
</tr>
<tr>
<td></td>
<td>11,319</td>
<td>12,799</td>
</tr>
<tr>
<td></td>
<td>12,257</td>
<td>14,470</td>
</tr>
<tr>
<td></td>
<td>22,399</td>
<td>24,967</td>
</tr>
<tr>
<td></td>
<td>5,051</td>
<td>5,277</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,832</td>
</tr>
</tbody>
</table>

- **Column D is the projected year and the numbers come from historical industry data also produced by QCEW and other sources.**

- **The projections are generated using a machine learning statistical package developed by a state consortium called the Projections Management Partnership**

- **Once the industry projections are complete, Florida’s staffing ratios, collected by OES, are overlaid on the industry projections data to generate the occupation breakout.**
### Replacements Method: Growth, Percent Growth: 2017-2025

<table>
<thead>
<tr>
<th></th>
<th>C (Employment)</th>
<th>D</th>
<th>E (2017-2025)</th>
<th>F (Percent Growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>9,316,220</td>
<td>10,366,167</td>
<td>1,072,354</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>413,213</td>
<td>454,054</td>
<td>42,919</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>104,605</td>
<td>116,514</td>
<td>11,909</td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>20,000</td>
<td>21,379</td>
<td>1,379</td>
<td>6.9</td>
</tr>
<tr>
<td></td>
<td>82,913</td>
<td>93,393</td>
<td>10,480</td>
<td>12.6</td>
</tr>
<tr>
<td></td>
<td>1,692</td>
<td>1,742</td>
<td>50</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>26,240</td>
<td>29,580</td>
<td>3,340</td>
<td>12.7</td>
</tr>
<tr>
<td></td>
<td>865</td>
<td>964</td>
<td>99</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>8,336</td>
<td>9,705</td>
<td>1,369</td>
<td>16.4</td>
</tr>
<tr>
<td></td>
<td>14,475</td>
<td>16,061</td>
<td>1,586</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,850</td>
<td>286</td>
<td>11.2</td>
</tr>
<tr>
<td></td>
<td>65,323</td>
<td>73,482</td>
<td>8,159</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>11,319</td>
<td>12,799</td>
<td>1,480</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>12,257</td>
<td>14,470</td>
<td>2,213</td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>22,399</td>
<td>24,967</td>
<td>2,568</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>5,051</td>
<td>5,277</td>
<td>226</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>2,564</td>
<td>2,832</td>
<td>268</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>4,291</td>
<td>4,670</td>
<td>379</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>679</td>
<td>764</td>
<td>85</td>
<td>12.5</td>
</tr>
<tr>
<td></td>
<td>5,486</td>
<td>6,243</td>
<td>757</td>
<td>13.8</td>
</tr>
<tr>
<td></td>
<td>1,277</td>
<td>1,460</td>
<td>183</td>
<td>14.3</td>
</tr>
</tbody>
</table>

- **Under the old Replacements method:**
  - Column E is generally the difference between column D and C. However, this is not always true for aggregate categories because of limitations of the calculation method.
  - \( E = D - C \)
  - Column F is a calculation of the percentage of the level growth captured in column E.
  - \( F = \left( \frac{D}{C} \right) - 1 \)
Replacements Method: Total Job Openings: 2017-2025

<table>
<thead>
<tr>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2017 - 2025</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percent Growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Job Openings*</td>
</tr>
<tr>
<td>1,072,354</td>
<td>11.3</td>
<td>2,856,949</td>
</tr>
<tr>
<td>42,919</td>
<td>9.9</td>
<td>112,041</td>
</tr>
<tr>
<td>11,909</td>
<td>11.4</td>
<td>31,401</td>
</tr>
<tr>
<td>1,379</td>
<td>6.9</td>
<td>4,089</td>
</tr>
<tr>
<td>10,480</td>
<td>12.6</td>
<td>26,969</td>
</tr>
<tr>
<td>50</td>
<td>3.0</td>
<td>343</td>
</tr>
<tr>
<td>3,340</td>
<td>12.7</td>
<td>8,497</td>
</tr>
<tr>
<td>99</td>
<td>11.5</td>
<td>321</td>
</tr>
<tr>
<td>1,369</td>
<td>16.4</td>
<td>2,920</td>
</tr>
<tr>
<td>1,586</td>
<td>11.0</td>
<td>4,279</td>
</tr>
<tr>
<td>286</td>
<td>11.2</td>
<td>977</td>
</tr>
<tr>
<td>8,159</td>
<td>12.5</td>
<td>19,076</td>
</tr>
<tr>
<td>1,480</td>
<td>13.1</td>
<td>3,115</td>
</tr>
<tr>
<td>2,213</td>
<td>18.1</td>
<td>3,293</td>
</tr>
<tr>
<td>2,568</td>
<td>11.5</td>
<td>6,727</td>
</tr>
<tr>
<td>226</td>
<td>4.5</td>
<td>1,345</td>
</tr>
<tr>
<td>268</td>
<td>10.5</td>
<td>737</td>
</tr>
<tr>
<td>379</td>
<td>8.8</td>
<td>1,114</td>
</tr>
<tr>
<td>85</td>
<td>12.5</td>
<td>242</td>
</tr>
<tr>
<td>757</td>
<td>13.8</td>
<td>2,025</td>
</tr>
</tbody>
</table>

- **Under the old Replacements method:**
  - Column G is calculated by applying a replacement needs factor to column E based on historical occupational replacement rates derived from the Current Population Survey (CPS)
  - This factor attempted to capture job openings due to replacement needs, but often only captured needs due to labor force exits, thus undercounting total needed replacements
**Separations Method:** Growth, Percent Growth: 2017-2025

<table>
<thead>
<tr>
<th>Employment</th>
<th>2017</th>
<th>2025</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>9,316,220</td>
<td>10,366,167</td>
<td>1,072,354</td>
<td>11.3</td>
</tr>
<tr>
<td>413,213</td>
<td>454,054</td>
<td>42,919</td>
<td>42,919</td>
<td>9.9</td>
</tr>
<tr>
<td>104,605</td>
<td>116,514</td>
<td>11,909</td>
<td>11,909</td>
<td>11.4</td>
</tr>
<tr>
<td>20,000</td>
<td>21,379</td>
<td>1,379</td>
<td>1,379</td>
<td>6.9</td>
</tr>
<tr>
<td>82,913</td>
<td>93,393</td>
<td>10,480</td>
<td>10,480</td>
<td>12.6</td>
</tr>
<tr>
<td>1,692</td>
<td>1,742</td>
<td>50</td>
<td>50</td>
<td>3.0</td>
</tr>
<tr>
<td>26,240</td>
<td>29,580</td>
<td>3,340</td>
<td>3,340</td>
<td>12.7</td>
</tr>
<tr>
<td>865</td>
<td>964</td>
<td>99</td>
<td>99</td>
<td>11.5</td>
</tr>
<tr>
<td>8,336</td>
<td>9,705</td>
<td>1,369</td>
<td>1,369</td>
<td>16.4</td>
</tr>
<tr>
<td>14,475</td>
<td>16,061</td>
<td>1,586</td>
<td>1,586</td>
<td>11.0</td>
</tr>
<tr>
<td>2,564</td>
<td>2,850</td>
<td>286</td>
<td>286</td>
<td>11.2</td>
</tr>
<tr>
<td>65,323</td>
<td>73,482</td>
<td>8,159</td>
<td>8,159</td>
<td>12.5</td>
</tr>
<tr>
<td>11,319</td>
<td>12,799</td>
<td>1,480</td>
<td>1,480</td>
<td>13.1</td>
</tr>
<tr>
<td>12,257</td>
<td>14,470</td>
<td>2,213</td>
<td>2,213</td>
<td>18.1</td>
</tr>
<tr>
<td>22,399</td>
<td>24,967</td>
<td>2,568</td>
<td>2,568</td>
<td>11.5</td>
</tr>
<tr>
<td>5,051</td>
<td>5,277</td>
<td>226</td>
<td>226</td>
<td>4.5</td>
</tr>
<tr>
<td>2,564</td>
<td>2,832</td>
<td>268</td>
<td>268</td>
<td>10.5</td>
</tr>
<tr>
<td>4,291</td>
<td>4,670</td>
<td>379</td>
<td>379</td>
<td>8.8</td>
</tr>
<tr>
<td>679</td>
<td>764</td>
<td>85</td>
<td>85</td>
<td>12.5</td>
</tr>
<tr>
<td>5,486</td>
<td>6,243</td>
<td>757</td>
<td>757</td>
<td>13.8</td>
</tr>
<tr>
<td>1,277</td>
<td>1,460</td>
<td>183</td>
<td>183</td>
<td>14.3</td>
</tr>
</tbody>
</table>

- **Under the new Separations method:**
  - Column E is the difference between column D and C
    - \( E = D - C \)
  - Column F is a calculation of the percentage of the level growth captured in column E
    - \( F = (D/C) - 1 \)
### Separations Method: Total Job Openings: 2017-2025

<table>
<thead>
<tr>
<th>Growth</th>
<th>Percent Growth</th>
<th>Total Job Openings*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,072,354</td>
<td>11.3</td>
<td>2,856,949</td>
</tr>
<tr>
<td>42,919</td>
<td>9.9</td>
<td>112,041</td>
</tr>
<tr>
<td>11,909</td>
<td>11.4</td>
<td>31,401</td>
</tr>
<tr>
<td>1,379</td>
<td>6.9</td>
<td>4,089</td>
</tr>
<tr>
<td>10,480</td>
<td>12.6</td>
<td>26,969</td>
</tr>
<tr>
<td>50</td>
<td>3.0</td>
<td>343</td>
</tr>
<tr>
<td>3,340</td>
<td>12.7</td>
<td>8,497</td>
</tr>
<tr>
<td>99</td>
<td>11.5</td>
<td>321</td>
</tr>
<tr>
<td>1,369</td>
<td>16.4</td>
<td>2,920</td>
</tr>
<tr>
<td>1,586</td>
<td>11.0</td>
<td>4,279</td>
</tr>
<tr>
<td>286</td>
<td>11.2</td>
<td>977</td>
</tr>
<tr>
<td>8,159</td>
<td>12.5</td>
<td>19,076</td>
</tr>
<tr>
<td>1,480</td>
<td>13.1</td>
<td>3,115</td>
</tr>
<tr>
<td>2,213</td>
<td>18.1</td>
<td>3,293</td>
</tr>
<tr>
<td>2,568</td>
<td>11.5</td>
<td>6,727</td>
</tr>
<tr>
<td>226</td>
<td>4.5</td>
<td>1,345</td>
</tr>
<tr>
<td>268</td>
<td>10.5</td>
<td>737</td>
</tr>
<tr>
<td>379</td>
<td>8.8</td>
<td>1,114</td>
</tr>
<tr>
<td>85</td>
<td>12.5</td>
<td>242</td>
</tr>
<tr>
<td>757</td>
<td>13.8</td>
<td>2,025</td>
</tr>
</tbody>
</table>

- **Under the new Separations method:**
  - Column G is now calculated adding together column E with two new estimates—annual exits and annual transfers.
    - Annual exits (not shown) captures the number of people who are leaving the labor force permanently.
    - Annual transfers (not shown) captures the number of people who are moving to another occupation from this occupation.
  - Annual exits and transfers are new estimates calculated using regression models that incorporate age and other demographic variables from the CPS longitudinal data.
Total Job Openings: New vs Old Methodology

**Old REPLACEMENT METHOD**

- Growth OPENINGS: 30,306
- Replacement OPENINGS: 34,943
- Total OPENINGS: 62,249

**New SEPARATIONS METHOD**

- Growth OPENINGS: 30,306
- Transfers: 36,457
- Exits: 47,032
- Total OPENINGS: 113,795
### 2017 Entry and Median Hourly Wage

<table>
<thead>
<tr>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Hourly Wage ($)**</td>
<td>Education Level</td>
<td>FL†</td>
<td>BLSt†</td>
</tr>
<tr>
<td>Entry</td>
<td>Median</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>57.70</td>
<td>-</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>33.43</td>
<td>55.58</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>16.78</td>
<td>22.21</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>34.92</td>
<td>56.96</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>35.73</td>
<td>55.80</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>42.55</td>
<td>65.97</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>36.66</td>
<td>52.62</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>30.74</td>
<td>52.28</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>41.85</td>
<td>64.55</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>38.35</td>
<td>62.71</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>39.33</td>
<td>48.11</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>39.69</td>
<td>54.81</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>31.73</td>
<td>47.56</td>
<td>A</td>
<td>HS</td>
</tr>
<tr>
<td>34.56</td>
<td>53.43</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>30.87</td>
<td>48.58</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>22.49</td>
<td>40.14</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

- Column H and I report entry and median hourly wage for a given occupation
- The wage data come from the same OES survey of employers used to create Florida’s occupational staffing patterns
Florida’s Education Level

<table>
<thead>
<tr>
<th>Entry</th>
<th>Median</th>
<th>2017 Hourly Wage ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FL†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57.70</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>33.43</td>
<td>55.58</td>
<td>A</td>
</tr>
<tr>
<td>16.78</td>
<td>22.21</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.92</td>
<td>56.96</td>
<td>B</td>
</tr>
<tr>
<td>35.73</td>
<td>55.80</td>
<td>B</td>
</tr>
<tr>
<td>42.55</td>
<td>65.97</td>
<td>B</td>
</tr>
<tr>
<td>36.66</td>
<td>52.62</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.74</td>
<td>52.28</td>
<td>A</td>
</tr>
<tr>
<td>41.85</td>
<td>64.55</td>
<td>B</td>
</tr>
<tr>
<td>38.35</td>
<td>62.71</td>
<td>B</td>
</tr>
<tr>
<td>39.33</td>
<td>48.11</td>
<td>A</td>
</tr>
<tr>
<td>39.69</td>
<td>54.81</td>
<td>A</td>
</tr>
<tr>
<td>31.73</td>
<td>47.56</td>
<td>A</td>
</tr>
<tr>
<td>34.56</td>
<td>53.43</td>
<td>A</td>
</tr>
<tr>
<td>30.87</td>
<td>48.58</td>
<td>B</td>
</tr>
<tr>
<td>22.49</td>
<td>40.14</td>
<td>A</td>
</tr>
</tbody>
</table>

- Column J shows the minimum education level expected to be able to enter a given occupation as defined by the state of Florida

‡Florida education levels are abbreviated as follow:

- A: Associate Degree
- B: Bachelor’s Degree
- HS: High School Diploma or GED
- M+: Master’s, Doctoral or Professional Degree
- NR: No formal educational credential required
- PS: Postsecondary Non-Degree Award
## BLS Education Level

<table>
<thead>
<tr>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017 Hourly Wage ($)**</td>
<td>Education Level</td>
<td>FL†</td>
<td>BLST†</td>
</tr>
<tr>
<td>Entry</td>
<td>Median</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>57.70</td>
<td>-</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>33.43</td>
<td>55.58</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>16.78</td>
<td>22.21</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>34.92</td>
<td>56.96</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>35.73</td>
<td>55.80</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>42.55</td>
<td>65.97</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>36.66</td>
<td>52.62</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>30.74</td>
<td>52.28</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>41.85</td>
<td>64.55</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>38.35</td>
<td>62.71</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>39.33</td>
<td>48.11</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>39.69</td>
<td>54.81</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>31.73</td>
<td>47.56</td>
<td>A</td>
<td>HS</td>
</tr>
<tr>
<td>34.56</td>
<td>53.43</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>30.87</td>
<td>48.58</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>22.49</td>
<td>40.14</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

- Column K shows the typical entry-level education level expected of those who are in a given occupation.

- These are based on data collected by the Bureau of Labor Statistics.

†U.S. Department of Labor, Bureau of Labor Statistics education levels are abbreviated as follow:

A: Associate Degree  
B: Bachelor’s Degree  
D: Doctoral or Professional Degree  
HS: High School Diploma or GED  
M: Master’s Degree  
NR: No formal educational credential required  
PS: Postsecondary Non-Degree Award  
SC: Some college, no degree
Thank You.

If you have questions or comments about this presentation or need to discuss a future project; please contact our office.

DEO Bureau of Labor Market Statistics
Main Line: 850-245-7205
Email: lms.info@deo.myflorida.com