



# Using the Quarterly Workforce Indicators

Mark C. White

# Agenda

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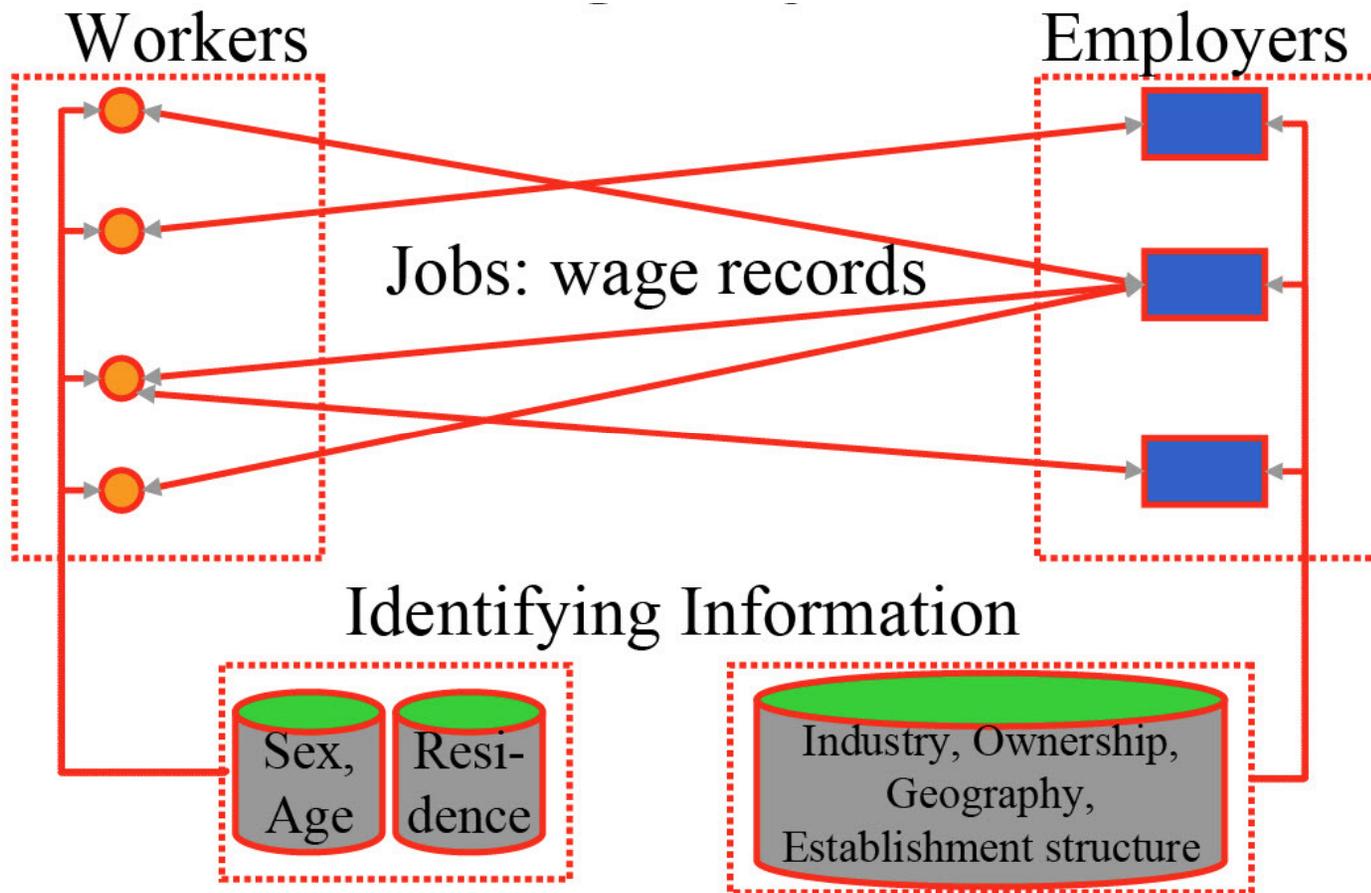
- ▶ What are the Local Employment Dynamics (LED) Quarterly Workforce Indicators (QWI)
- ▶ How can I use the QWI?
- ▶ Demonstrating the QWI tools
  - ▶ QWI Online
  - ▶ Industry Focus
  - ▶ Data Visualization (Many Eyes)

# Local Employment Dynamics

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- ▶ Partnership between state LMI agencies and the Census Bureau
  - ▶ MA and PR don't have data yet
- ▶ Uses existing data
  - ▶ Wage records
  - ▶ Demographic information
- ▶ Supplies statistics on employment, job creation, turnover, and earnings by industry, age, and sex

# Matching Process



Source: Tom Tveidt, Syneva Economics, Inc

# What kind of information can I get from the QWI?

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	Quarterly Workforce Indicators (QWI)
Variables (categories)	<ul style="list-style-type: none"><li>•Age (8)</li><li>•Sex (2)</li><li>•Education (4)</li><li>•Race (6)</li><li>•Ethnicity (2)</li><li>•Industry (4 digit)</li><li>•Economic Indicators – Employment, Net Job Flows, Job Creation, New Hires, Separations, Job Turnover, Earnings</li></ul>
Geographic Detail	County MSA WIA Area
Updates	Quarterly

# The Quarterly Workforce Indicators

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- ▶ **Employment:** Beginning of Quarter Employment Total number of workers who were employed by the same employer in both the current and previous quarter
- ▶ **Net job flows:** The difference between current and previous employment at each business.
- ▶ **Job creation:** The number of new jobs that are created by either new area businesses or the expansion of employment by existing firms.

# The Quarterly Workforce Indicators

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- ▶ **New hires:** Total number of accessions that were also not employed by that employer during the previous four quarters.
- ▶ **Separations:** Total number of workers who were employed by a business in the current quarter, but not in the subsequent quarter.
- ▶ **Job turnover:** Turnover Rate =  $(1/2) * (\text{full-quarter accessions} + \text{full-quarter separations}) / \text{employment stable jobs}$

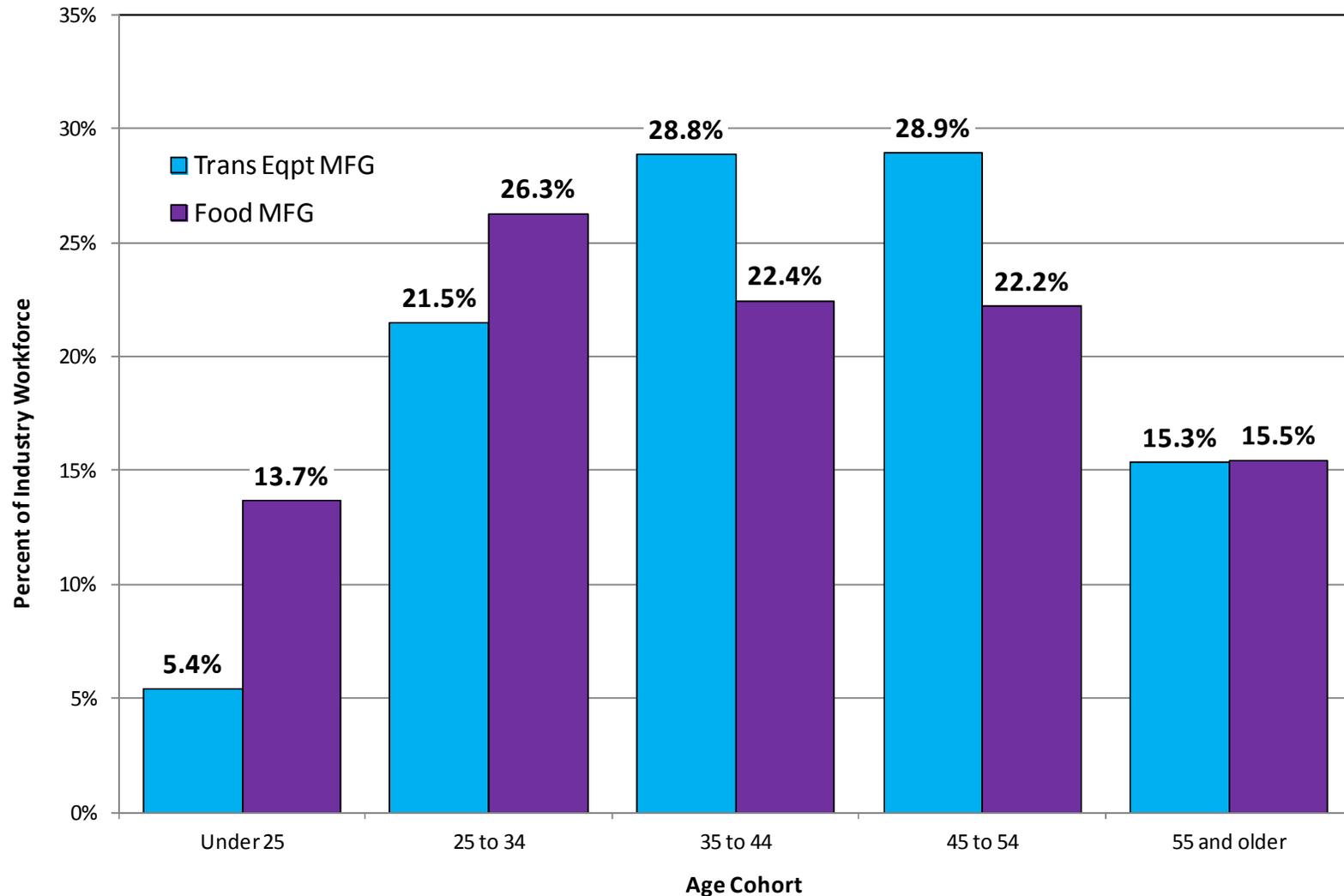
# The Quarterly Workforce Indicators

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- ▶ **Average monthly earnings:** Total quarterly earnings of all full-quarter employees divided by the number of full-quarter employees, divided by 3.
- ▶ **Average monthly new hire earnings:** Total quarterly earnings of all full-quarter new hires divided by the number of full-quarter new hires, divided by 3.

# QWI example: Comparing Industries

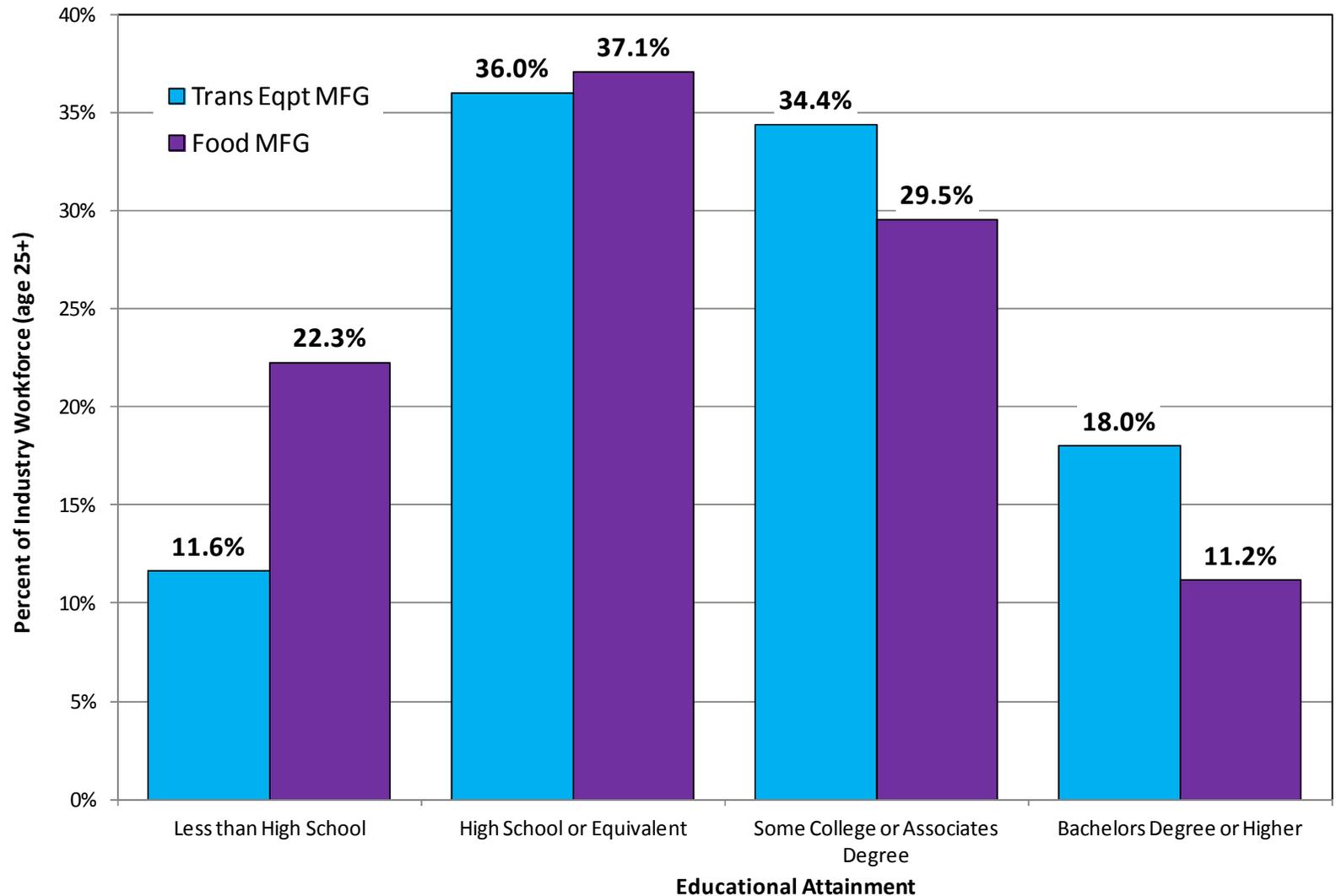
Age distribution within two Alabama MFG industries



Source: US Census Bureau, Local Employment Dynamics, 2011 Q4

# QWI example: Comparing Industries

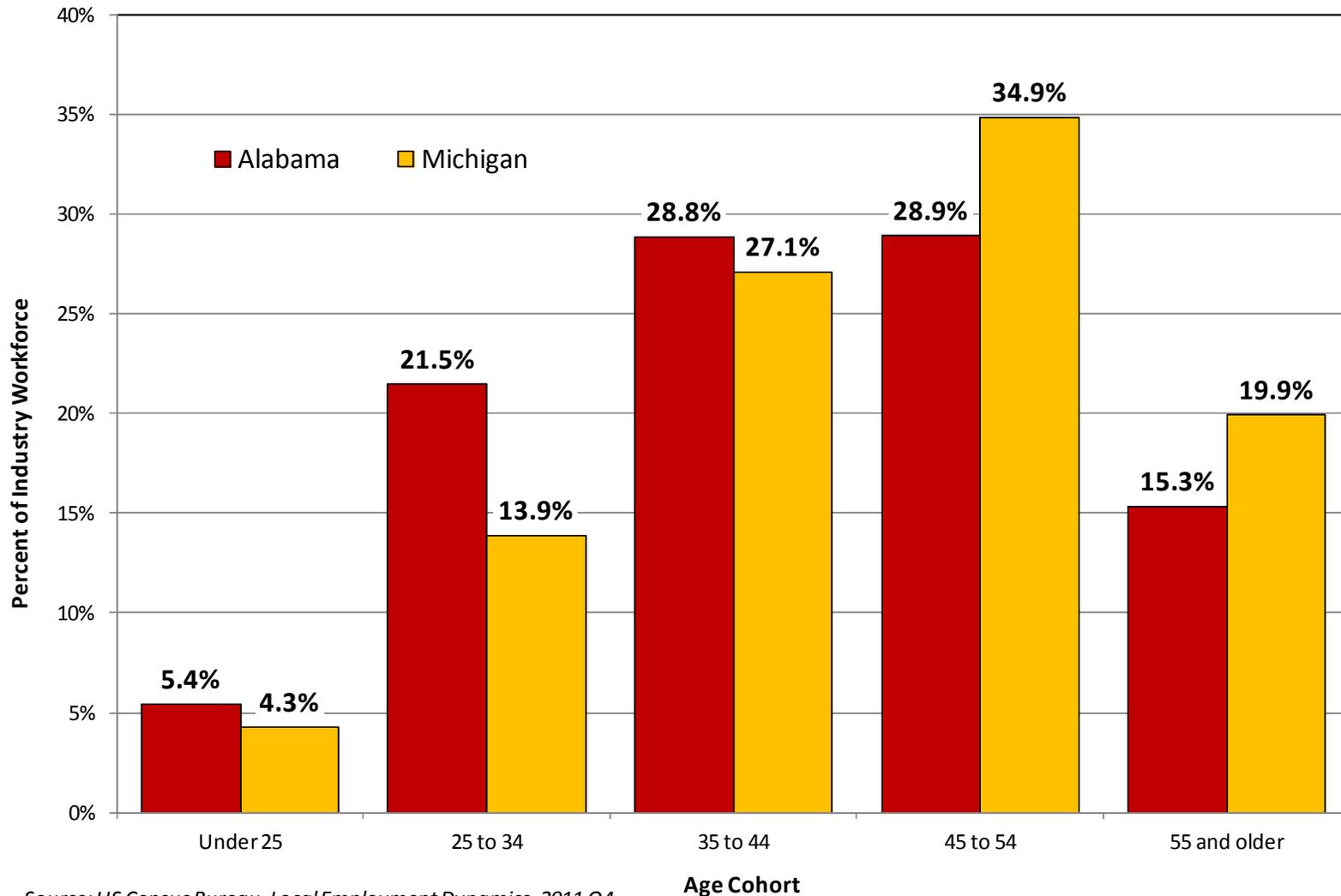
**Educational attainment in two Alabama MFG industries**



Source: US Census Bureau, Local Employment Dynamics, 2011 Q4

# QWI example: Comparing states

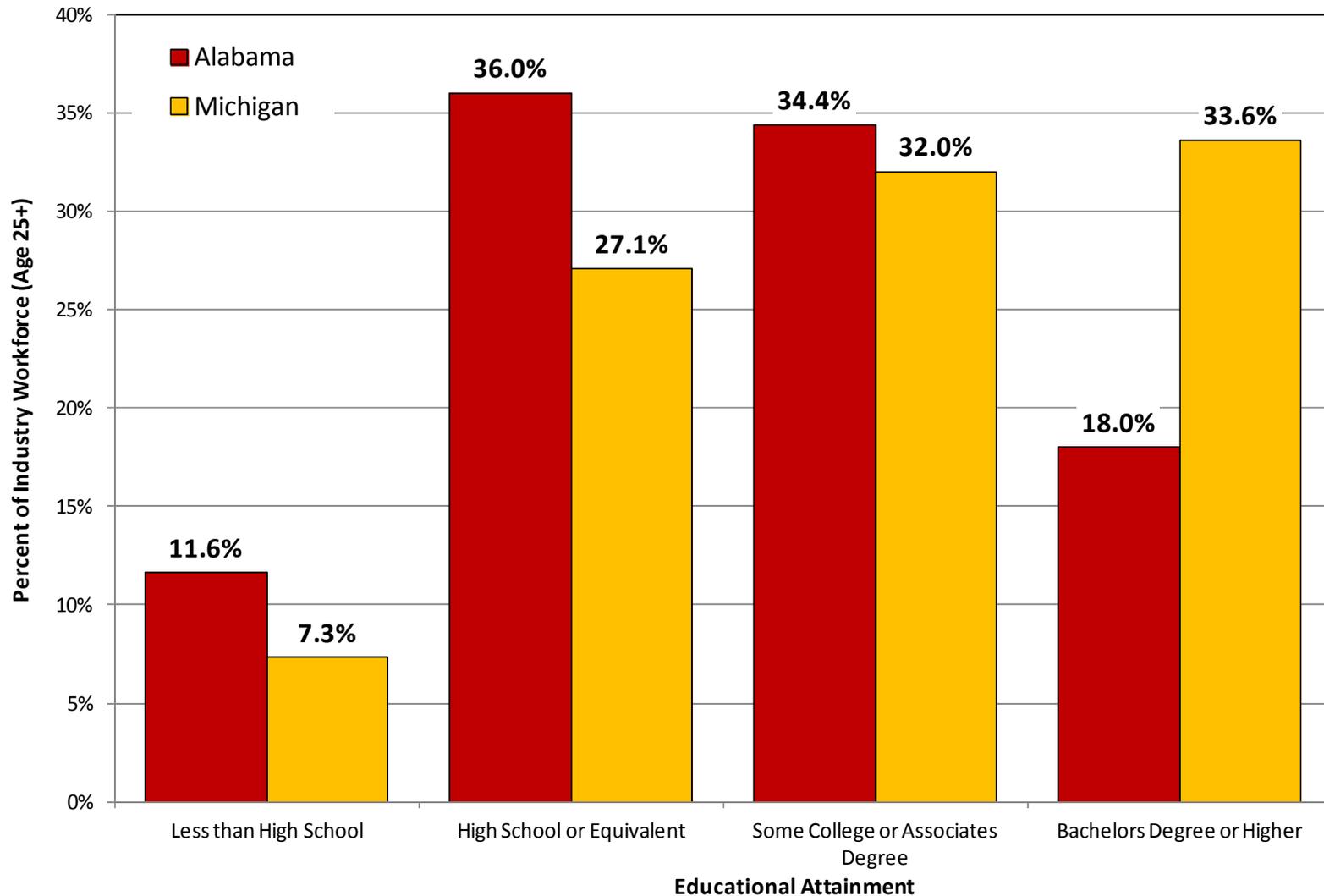
Age distribution within the Transportation Eqpt MFG Industry



Source: US Census Bureau, Local Employment Dynamics, 2011 Q4

# QWI example: Comparing states

## Educational Attainment within the Transportation Eqpt. MFG Industry



Source: US Census Bureau, Local Employment Dynamics, 2011 Q4

# Local Employment Dynamics Homepage

<http://lehd.ces.census.gov/>

U.S. Census Bureau  
**Longitudinal Employer-Household Dynamics**

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<p>▶ <b>Tools</b>  <a href="#">OnTheMap (Help)</a>  <a href="#">Emergency Management (Help)</a>  <a href="#">QWI Online (Help)</a>  <a href="#">Job Gains/Losses</a>  <a href="#">Industry Focus</a>  <a href="#">Older Worker Profiles</a>  <a href="#">CED HotReport</a></p> <p>▶ <b>Learning</b>  <a href="#">e-Learning</a>  <a href="#">Webinars</a>  <a href="#">Workshops</a></p> <p>▶ <b>Partnership</b>  <a href="#">State Partners</a>  <a href="#">Partners Only</a></p> <p>▶ <b>Data Download</b>  <a href="#">VirtualRDC</a>  <a href="#">State Only</a>  <a href="#">OnTheMap Data (Help)</a></p> <p>▶ <b>Data Visualization</b>  <a href="#">OnTheMap</a>  <a href="#">Many Eyes</a>  <a href="#">Google Public Data Explorer</a></p>	<p>▶ 12/12/12: <a href="#">New QWI Data Used in Census Brief</a></p> <p>▶ 10/03/12: <a href="#">New QWI for Federal Workers</a></p> <p>▶ 09/14/12: <a href="#">QWI Firm Age and Size Data Released</a></p> <p>▶ 08/31/12: <a href="#">New URL reminder</a></p> <p>▶ 08/09/12: <a href="#">New URL for the LEHD website</a></p> <p style="text-align: right;"><a href="#">[more...]</a></p> <p><a href="#">Send an email to join the OnTheMap mailing list</a></p> <hr/> <p><b><a href="#">OnTheMap for Emergency Management Version 3.0</a></b></p> <ul style="list-style-type: none"> <li>• <b>Expanded Report Content</b> – the addition of Decennial 2010 Demographic &amp; Housing Characteristics; 2010 Jobs &amp; Worker Sex Data</li> <li>• <b>New Emergency Event Data</b> – the addition of FEMA Disaster Declaration Areas &amp; NWS Snowfall Probability Forecasts</li> <li>• <b>More Complete Hurricane Archives</b> – Capture &amp; Archiving of all Daily NHC Storm Updates</li> <li>• <b>New Analyses &amp; Visualizations</b> – New Reports with Charting &amp; Thematic Map Overlays Showing Population &amp; Worker Distributions</li> <li>• <b>New Interoperability</b> – New Tool for Exporting Event Areas to use in OnTheMap or Other GIS Applications</li> <li>• <b>Updated Interface and Help Documentation</b> – Improved User Interface Speed and Navigability; Improved Event Searching; Newly Updated Help Documentation</li> </ul> <div style="text-align: center; margin-top: 10px;">  </div>	<p>▶ <a href="#">What is LEHD?</a></p> <p>▶ <a href="#">What is LED?</a></p> <p>▶ <a href="#">What is the difference between LEHD and LED?</a></p> <p>▶ <a href="#">What are the QWI?</a></p> <p style="text-align: right;"><a href="#">[more...]</a></p> <hr/> <p style="text-align: center;"><b>Did You Know?</b></p> <p style="text-align: center;"><b>Private Sector  Total Employment in  Pennsylvania</b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">2011Q1</th> <th style="width: 15%;">2012Q1</th> <th style="width: 15%;">Change</th> </tr> </thead> <tbody> <tr> <td><b>All</b></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Female</td> <td>2,348,603</td> <td>2,374,580</td> <td>+1.1%</td> </tr> <tr> <td>Male</td> <td>2,354,025</td> <td>2,397,361</td> <td>+1.8%</td> </tr> <tr> <td><b>Female</b></td> <td>62,777</td> <td>65,450</td> <td>+4.3%</td> </tr> <tr> <td><b>Male</b></td> <td>64,226</td> <td>67,079</td> <td>4.4%</td> </tr> </tbody> </table> <p style="text-align: center; margin-top: 10px;"><a href="#">Next</a></p> <p style="font-size: small; margin-top: 5px;">For more details or local results, visit <a href="#">QWI Online</a>.  U.S. Census Bureau, Local Employment Dynamics,  12/24/2012, 13:58:30 pm</p>		2011Q1	2012Q1	Change	<b>All</b>				Female	2,348,603	2,374,580	+1.1%	Male	2,354,025	2,397,361	+1.8%	<b>Female</b>	62,777	65,450	+4.3%	<b>Male</b>	64,226	67,079	4.4%
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# QWI Online

(<http://lehd.ces.census.gov/datatools/qwiapp.html>)

U.S. Census Bureau

## Longitudinal Employer-Household Dynamics

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### QWI Online [NAICS]

Select a state from the following table to access NAICS-based statistics. [SIC-based statistics](#) also available, though they are no longer updated. While the NAICS series continue on a quarterly basis, the SIC-based QWI ceased to be updated as of the 2007Q2 data update. If a state does not have an active link, either it is a new partner whose data are being collected or it is not a partner in the voluntary Local Employment Dynamics (LED) partnership (state name in italic).

- Technical Paper No. TP-2006-01  
[The LEHD Infrastructure Files and the Creation of the Quarterly Workforce Indicators](#) [PDF; File Size: 768KB]  
Date: January 2006. Authors: John Abowd, Bryce Stephens and Lars Vilhuber
- [Detailed QWI Definitions](#) [PDF; File Size: 272KB]  
Date: January 2006. Authors: John Abowd, Bryce Stephens and Lars Vilhuber
- [Generalized QWI Definitions: QWI 101](#) [PDF; File Size: 203KB]

The year and quarter number below each state indicate the latest complete update for that state.

<a href="#">Alabama</a> (2011 Q4)	<a href="#">Florida</a> (2011 Q4)	<a href="#">Louisiana</a> (2011 Q4)	<a href="#">Nebraska</a> (2011 Q4)	<a href="#">Oklahoma</a> (2011 Q4)	<a href="#">Vermont</a> (2011 Q4)
<a href="#">Alaska</a> (2011 Q4)	<a href="#">Georgia</a> (2011 Q4)	<a href="#">Maine</a> (2011 Q4)	<a href="#">Nevada</a> (2011 Q4)	<a href="#">Oregon</a> (2011 Q4)	<a href="#">Virginia</a> (2011 Q4)
<a href="#">Arizona</a> (2011 Q4)	<a href="#">Hawaii</a> (2011 Q4)	<a href="#">Maryland</a> (2011 Q4)	<a href="#">New Hampshire</a> (2011 Q4)	<a href="#">Pennsylvania</a> (2011 Q4)	<a href="#">Washington</a> (2011 Q4)
<a href="#">Arkansas</a> (2011 Q4)	<a href="#">Idaho</a> (2011 Q4)	<i>Massachusetts</i>	<a href="#">New Jersey</a> (2011 Q4)	<a href="#">Rhode Island</a> (2011 Q4)	<a href="#">West Virginia</a> (2011 Q4)
<a href="#">California</a> (2011 Q4)	<a href="#">Illinois</a> (2011 Q4)	<a href="#">Michigan</a> (2011 Q4)	<a href="#">New Mexico</a> (2011 Q4)	<a href="#">South Carolina</a> (2011 Q4)	<a href="#">Wisconsin</a> (2011 Q4)
<a href="#">Colorado</a> (2011 Q2)	<a href="#">Indiana</a> (2011 Q4)	<a href="#">Minnesota</a> (2011 Q4)	<a href="#">New York</a> (2011 Q4)	<a href="#">South Dakota</a> (2011 Q4)	<a href="#">Wyoming</a> (2011 Q4)
<a href="#">Connecticut</a>	<a href="#">Iowa</a>	<a href="#">Mississippi</a>	<a href="#">North Carolina</a>	<a href="#">Tennessee</a>	<i>Puerto Rico</i>



# Demonstrating the QWI Tools

# Thank you!

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Mark C. White, Ph.D.  
Council for Community and Economic Research  
703-522-4980  
mwhite@crec.net