Introducing QWI Explorer!

Unlocking the Powerful Labor-force Information of the Quarterly Workforce Indicators

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What is QWI Explorer?

• New analysis tool for accessing the Quarterly Workforce Indicators (QWI) dataset
• Beta release makes all 32 indicators available in a pivot chart/table interface
• Compare, rank, and aggregate QWIs by time, geography, and firm and worker characteristics on the fly
• Companion application to the raw data outputs from the LED Extraction Tool
Why are QWIs Important?

• Indicators on Employment, Employment Change (Firm and Individual), and Earnings
• Detailed Firm Characteristics (geography, industry, age, size)
• Detailed Worker Demographics (sex, age, education, race, ethnicity)
• 3 Quarter lag, coverage varies by state
• Used by economic developers, urban planners, policy analysts, workforce researchers, and academics
Why Build This Tool?

- Feedback from users!
- Make entire set of QWIs available (32 indicators for 50 partner states) in an intuitive analysis tool
- Allow users to fully explore the detailed interactions between workers and firms via interactive tables, charts, and maps
- Broaden the user base for QWIs by making these complex data more accessible
- Replace the QWI Online and Industry Focus applications with a more useful and more modern web tool
Application Design Goals

- Simple, clean, flat interface
- Display an interactive table that is linked to an interactive chart/map
- Allow users to build the exact data combinations/comparisons needed to analyze their workforce question
- Provide useful and beautiful exports
- Make contextual help and documentation readily available
Under the Hood

• 7 TB database - 49 States plus DC (MA coming soon)
• Refreshed every quarter – Rolling production
• No downtime for users – States are loaded at midnight, check icon for states currently being loaded.
Features of the Application

- Interactive Chart
- Interactive Table

### Interactive Chart

Hover to Highlight

### Interactive Table

<table>
<thead>
<tr>
<th>County, KY</th>
<th>Construction</th>
<th>Manufacturing</th>
<th>Wholesale Trade</th>
<th>Retail Trade</th>
<th>Transportation and Warehousing</th>
<th>Information</th>
<th>Finance and Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adair, KY</td>
<td>1,998</td>
<td>2,049</td>
<td>2,067</td>
<td>2,035</td>
<td>2,071</td>
<td>2,189</td>
<td>2,437</td>
</tr>
<tr>
<td>Allen, KY</td>
<td>2,177</td>
<td>3,222</td>
<td>3,204</td>
<td>1,482</td>
<td>3,342</td>
<td>2,243</td>
<td>2,508</td>
</tr>
<tr>
<td>Anderson, KY</td>
<td>2,016</td>
<td>4,207</td>
<td>2,339</td>
<td>2,193</td>
<td>2,741</td>
<td>2,084</td>
<td>2,533</td>
</tr>
<tr>
<td>Ballard, KY</td>
<td>5,032</td>
<td>4,337</td>
<td>2,267</td>
<td>1,746</td>
<td>2,084</td>
<td>2,084</td>
<td>2,574</td>
</tr>
<tr>
<td>Barren, KY</td>
<td>2,866</td>
<td>2,917</td>
<td>3,415</td>
<td>1,804</td>
<td>2,528</td>
<td>2,783</td>
<td>3,524</td>
</tr>
<tr>
<td>Bath, KY</td>
<td>2,787</td>
<td>3,183</td>
<td>1,426</td>
<td>1,426</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bell, KY</td>
<td>2,874</td>
<td>2,423</td>
<td>4,702</td>
<td>1,836</td>
<td>1,920</td>
<td>1,695</td>
<td>2,867</td>
</tr>
<tr>
<td>Boone, KY</td>
<td>2,831</td>
<td>3,880</td>
<td>3,475</td>
<td>1,803</td>
<td>3,160</td>
<td>3,713</td>
<td>3,363</td>
</tr>
<tr>
<td>Bourbon, KY</td>
<td>2,226</td>
<td>3,658</td>
<td>4,262</td>
<td>2,106</td>
<td>8,087</td>
<td>2,705</td>
<td>3,085</td>
</tr>
<tr>
<td>Boyd, KY</td>
<td>3,037</td>
<td>5,137</td>
<td>4,052</td>
<td>1,758</td>
<td>3,340</td>
<td>2,238</td>
<td>2,817</td>
</tr>
</tbody>
</table>
Features of the Application

• **X-Axis** – Control the Rows of Table, X-Axis of Chart
• **Group** – Control the Columns Table, Groupings of Chart
• **Filters** – Refine Analysis by One Characteristic
• **Aggregations** – Select more than One Characteristic to Create Sums/Averages

Filters/Aggregations
- Average of Quarters: 2013 Q1 - 2012 Q2
- Sub-State Geography: Group
- Industries: X-Axis
- Firm Ownership: All Ownership
- Firm Age/Size: None
- Worker Sex: Female

X-Axis: NAICS Sectors
- 20 NAICS Sectors Selected

Group: Counties
- 16 Counties Selected
Live Demo!

http://qwiexplorer.ces.census.gov
Application Constraints

The following constraints exist in the QWI Explorer:

• Only one State and one Indicator can be selected at a time.
• Up to 25 Group elements can be displayed in the Bar Chart at a time.
• Up to 10,000 table cells in the QWI database can be accessed at a time. Larger queries are required to use the LED Extraction Tool.
• Settings Conflict Popups appear when incompatible settings need to be resolved.
Functionality In Development

- Line Charts
- Thematic Maps
- Improved and Additional Exports
- Group by Indicator
- Bug Fixes
- Bubble Motion Chart?
Tentative Release Schedule

4/14/2014 – Beta release of QWI Explorer (bar chart only)

9/2014 – Release version 1.0 (line charts, thematic maps, improved exports, bug fixes)

12/2014 – Release version 1.1 (additional bug fixes, bubble motion charts?)
Thank You!

• Please submit feedback to CES.QWI.Feedback@census.gov

• Questions?