

Introducing QWI Explorer

A New Tool for Accessing the Quarterly Workforce Indicators

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What is the LED Partnership?

- LED: Local Employment Dynamics
 - Partnership between Census and States
 - States voluntarily submit quarterly data (UI Wage Records and QCEW reports)
 - Census processes and develops public use products
 - Public data products
 - Quarterly Workforce Indicators (QWI Explorer, LED Extraction Tool, QWI Online, Industry Focus)
 - LODES (OnTheMap)
 - OnTheMap for Emergency Management
 - More in pipeline

What are the Quarterly Workforce Indicators?

- The Quarterly Workforce Indicators (QWI) are a series of 32 measures
 - Employment
 - Counts of jobs (individual)
 - Hiring and Separation counts and rates (individual)
 - Job creation and destruction (firm/establishment)
 - Earnings
 - Average earnings for selected job histories
 - Total earnings
 - Public use files and web-based applications are organized by state (national QWI are currently being developed)

QWI Aggregation Levels

- The QWI are tabulated by detailed firm characteristics and worker demographics:
 - Establishment Characteristics
 - Geography (state, county, metro, Workforce Investment Board area)
 - Industry (NAICS Sectors, Sub-sectors (3-digit), Industry groups (4-digit))
 - Ownership (Public or Private)
 - Firm age and size (These are for the national firm)
 - Worker Characteristics
 - Age, Sex, Education
 - Race & Ethnicity
 - All crossings of these characteristics reported (with a few exceptions for firm age and firm size)

For more detail: http://lehd.ces.census.gov/doc/QWI_101.pdf

LEHD's QWI Dissemination Strategy

- Provide a wide variety of access points to the data to accommodate as many user needs as possible
- Advanced data users: Bulk download of raw QWIPU from <http://lehd.ces.census.gov/pub/>
- Advanced data users: Access single raw QWIPU files from <http://lehd.ces.census.gov/data/#qwi>
- Intermediate data users: Extract the specific indicators and characteristics needed using the LED Extraction Tool
- Web tool users: Create your own table, chart, and map using the flexible user-interface of QWI Explorer

QWI Explorer

- New analysis tool for accessing the Quarterly Workforce Indicators (QWI) dataset
- Beta release (April 2014) 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



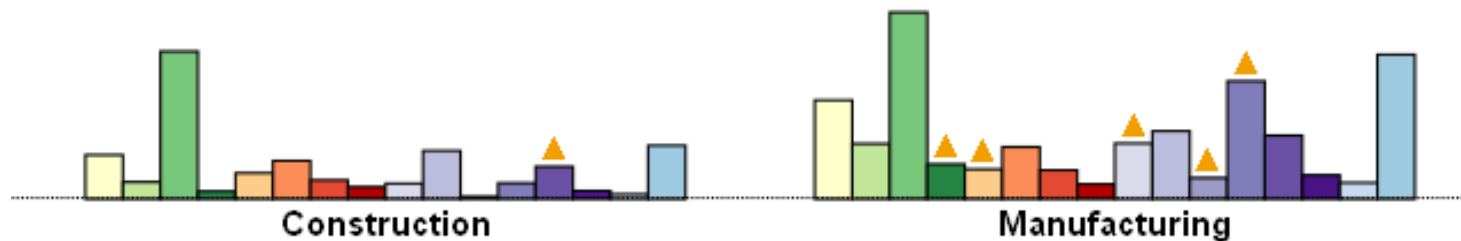
Why Build This Tool?

	Agriculture, Forestry, Fishing and Hunting	Mining, Quarrying, and Oil and Gas Extraction
Androscoggin, ME	540	
Aroostook, ME	2,136	
Cumberland, ME	442	42
Franklin, ME	217	


- 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

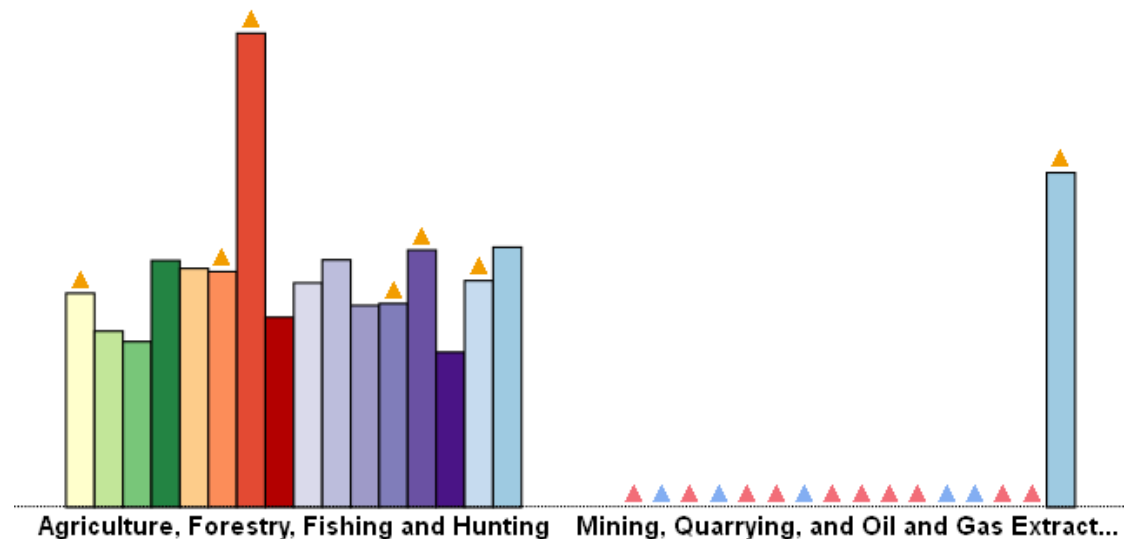
Application Design Goals

- 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



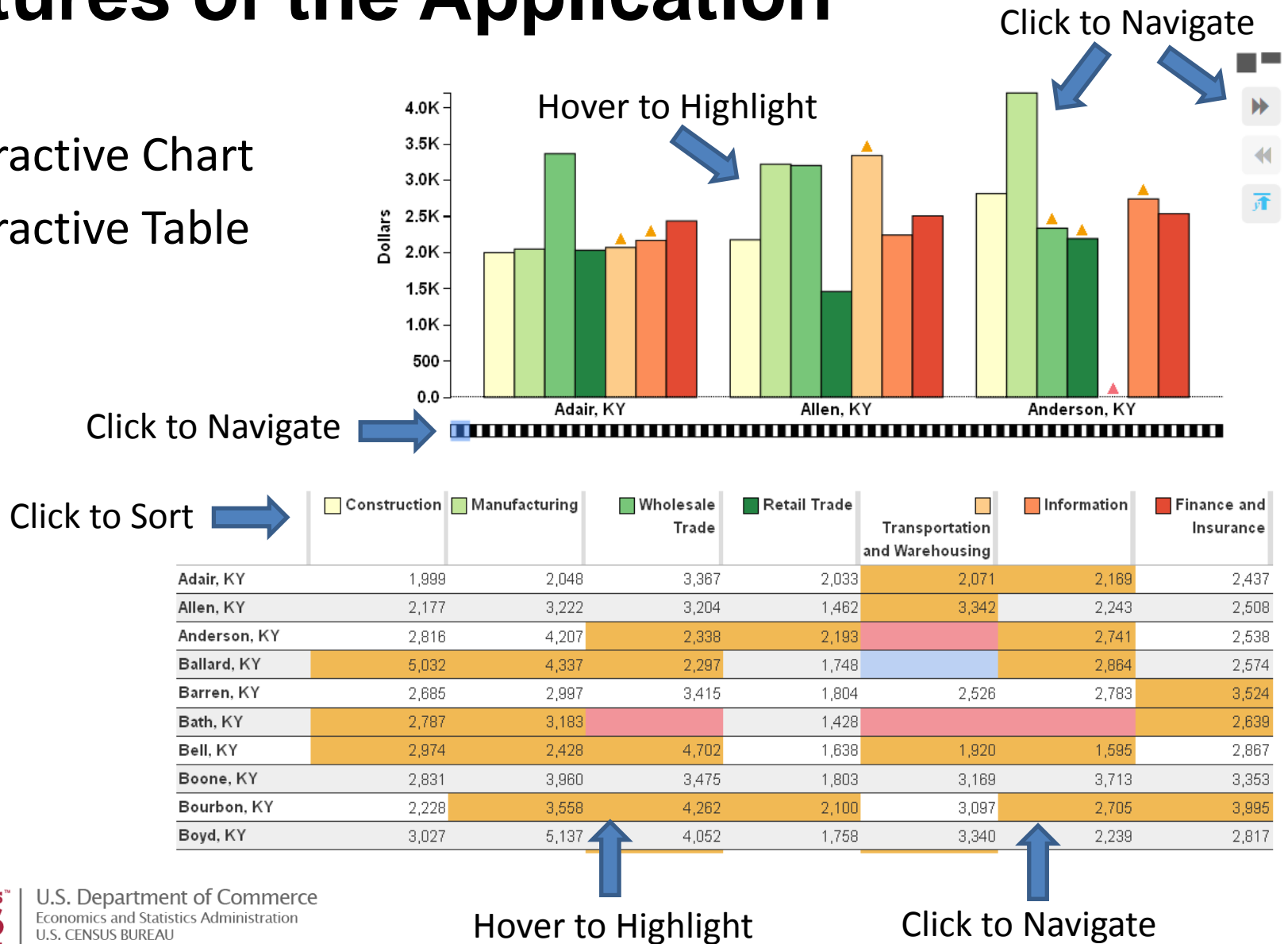
Under the Hood

- 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



Features of the Application

- X-Axis – Control the Rows of Table, X-Axis of Chart
- Group – Control the Columns Table and Groupings of Chart
- Filters – Refine Analysis by a Single 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 ⓘ



Group ⓘ

[20 NAICS Sectors Selected](#)

[16 Counties Selected](#)

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.

*The **Bar Chart** can handle up to 25 **Group** elements selected at a time. If more than 25 elements are selected, only the first ten and last ten elements are shown in the chart, separated by an axis break symbol. There are no such **Group** limitations for the data shown in the table.*

[Close](#)

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?)

Live Demonstration!

- <http://qwiexplorer.ces.census.gov/>
- Please submit feedback to CES.QWI.Feedback@census.gov