

# **QCEW Mapping Resources and Open Data**

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Washington DC**

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# **Quarterly Census of Employment and Wages (QCEW)**

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- 1. QCEW Basics/Applications**
- 2. Mapping Resources**
- 3. QCEW Data Viewer/Open Data**

# QCEW Basics:

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- **Quarterly *census* of employers:** 9.5 million establishments
- **BLS/State cooperative program using administrative data**
- **Admin data *plus*:** millions spent improving the raw data
- **Geocoded:** Latitude/longitude, based on physical address or zip
- **Publication:** industry by county, 6 months after quarter
- **Matching:** Many products possible using EIN and other fields.

# QCEW Applications:

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- **Many possible natural experiments**

- ▶ 1,109 NAICS industries x 3,000 counties = 3.3 million series
- ▶ Local wages as alternate measure of labor market tightness
- ▶ Wage LQ as measure of local differential demand
- ▶ Tale of two counties: break MSAs into component counties

# State and County Map App

## QCEW State and County Map

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Maryland [Back to US](#)

Map & Chart

Industry Data

Time Period: Q1 2015

Industry: All Industries

Pos: Blue

Neg: Orange

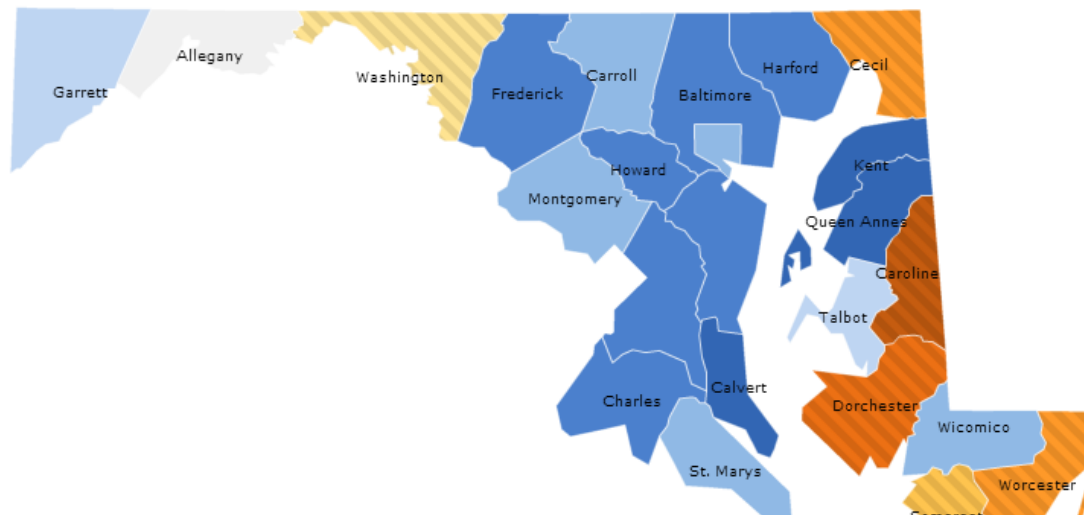
Map Series: % Change Employment

Ownership: All Ownerships

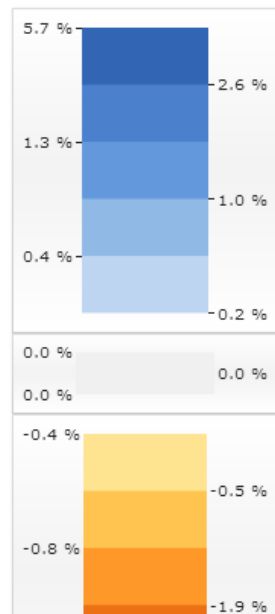
Color Mode: Rank

Update

12 month percent change in employment, Total, all industries , Total Covered Mar 2014-Mar 2015 (p)

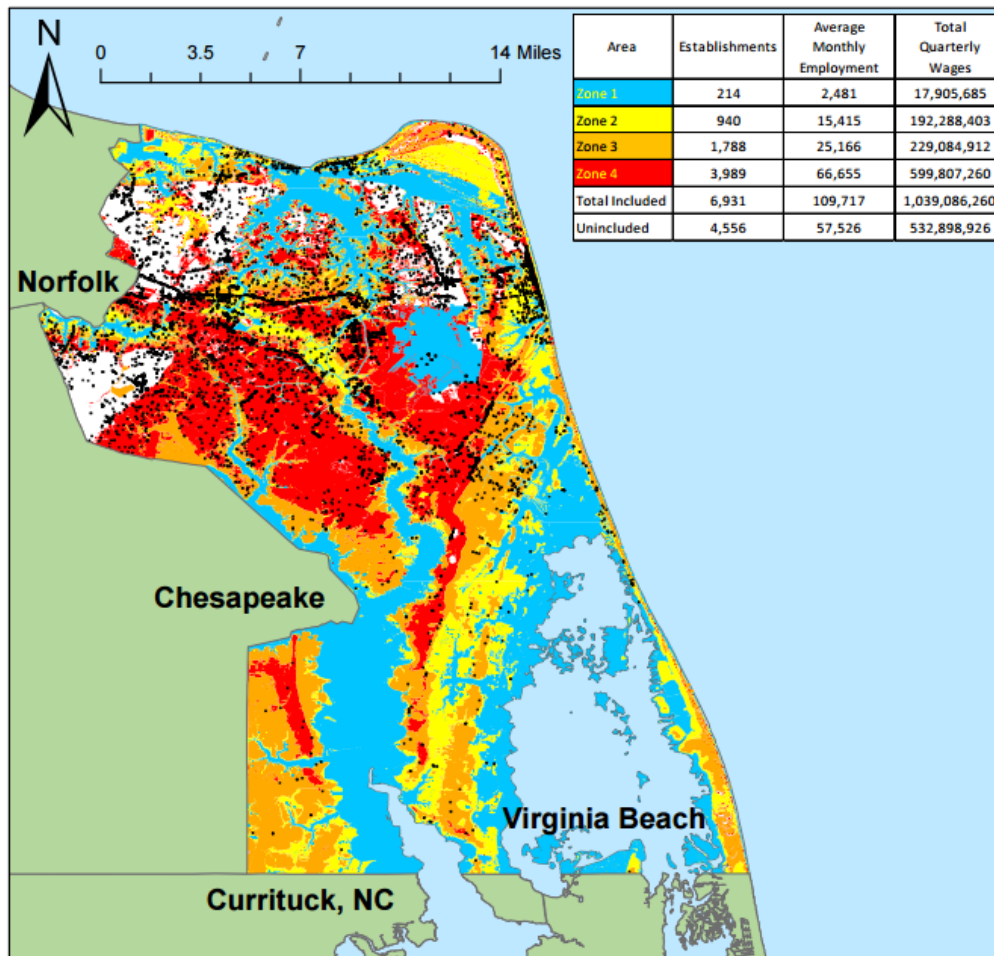


Color Thresholds



# Evac Zone Maps/Tabs

## Employment in Hurricane Storm Surge Flood Zones, Virginia Beach, VA

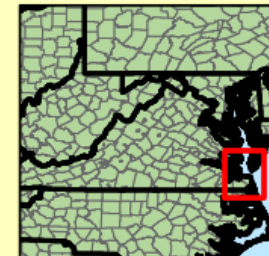


Note: Flood zones represent a conservative estimation of areas that would experience flooding in the event of a hurricane. Zone 1 is the area that would be flooded by a Category I hurricane. A Category II hurricane would cause flooding in Zones 1 and 2. The hurricane categories reference the Saffir-Simpson Hurricane Scale.

Black dots represent establishments.

Data Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages; 2012 Third Quarter  
<http://www.bls.gov/cew>

Flood Zone Source: National Hurricane Program.



# QCEW Data Viewer

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- **Front end:** provides 100% of QCEW data for 2012-forward
- **Input:** QCEW Open Data CSV files
- **Technology:** Javascript
- **Outputs:** Tables by area or industry
- **Frame:** designed to provide additional outputs in future

# Data Viewer Home

Start | QCEW Data Views - Windows Internet Explorer provided by Bureau of Labor Statistics

http://www.bls.gov/cew/apps/data\_views/data\_views.htm#tab=Tables

QCEW Data Views

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## Quarterly Census of Employment and Wages

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**Tables** About Help

### Geographic Cross-Sections

1. [All states, one industry](#)
2. [All counties, one industry](#)
3. [All counties in a state, one industry](#)
4. [All MSAs, one industry](#)
5. [All geographic areas, one industry](#)

### NAICS Industries by Geography

6. [High-level industries, one area](#)
7. [NAICS sectors, one area](#)
8. [NAICS sub-sectors, one area](#)
9. [NAICS 4-digit industries, one area](#)
10. [NAICS 5-digit industries, one area](#)
11. [NAICS 6-digit industries, one area](#)
12. [All industry levels, one area](#)

### Data by Establishment Size Class

13. [National, one industry group, by size](#)
14. [National, one industry, all sizes](#)
15. [All states, one industry, by size](#)
16. [One state, one industry group, by size](#)
17. [One state, one industry, all sizes](#)

### Multi-Year Data

Coming Soon

### All Counties, One Industry

Year: 2014

Quarter: Second Quarter

Ownership: Private

Industry: 10 Total, all industries  
101 Goods-producing  
1011 Natural resources and mining  
1012 Construction  
1013 Manufacturing  
102 Service-providing  
1021 Trade, transportation, and utilities  
1022 Information  
1023 Financial activities  
1024 Professional and business services  
1025 Education and health services  
1026 Leisure and hospitality

Search Industry: Find

Get Table

☐ Show records with suppressed employment and wages.  
Available for data from 2001 forward



# Data Viewer Output

Start Private, NAICS 511 Publishing industries, except internet, All Counties 2014 Second Quarter, AI - Windows Internet Explorer pro

http://www.bls.gov/cew/apps/table\_maker/v3/table\_maker.htm#type=1&year=2014 QCEW Data Views Private, NAICS 511 Publishin...

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## Quarterly Census of Employment and Wages

Private, NAICS 511 Publishing industries, except internet, All Counties  
2014 Second Quarter, All establishment sizes  
Source: Quarterly Census of Employment and Wages - Bureau of Labor Statistics

Table Filter: (Filter Value) Apply Clear Page 1 of 14

Download Source Data Build Another Table Display 75 rows per page

County	Quarterly Establishments	April Employment	May Employment	June Employment	Total Quarterly Wages	Average Weekly Wage	June Employment Location Quotient	Total Quarterly Wages Location Quotient
	V A	V A	V A	V A	V A	V A	V A	V A
U.S. TOTAL	36,840	720,482	720,436	724,412	\$16,265,292,807	\$1,733	1.00	1.00
King County, Washington	652	55,760	55,817	57,075	1,953,895,278	2,674	8.70	10.14
New York County, New York	972	41,660	41,750	42,182	1,266,199,508	2,327	3.22	2.33
Middlesex County, Massachusetts	512	21,487	21,525	21,936	707,688,719	2,515	4.84	4.73
Santa Clara County, California	297	16,833	16,774	17,176	863,375,511	3,923	3.34	3.73
Los Angeles County, California	692	13,938	13,925	14,071	366,465,840	2,017	0.64	0.68
San Mateo County, California	151	13,161	13,190	13,354	620,263,475	3,605	6.82	7.63
Cook County, Illinois	675	12,440	12,490	12,544	265,432,979	1,635	0.95	0.78
Fulton County, Georgia	287	9,013	9,146	9,148	312,162,374	2,638	2.28	2.65
Dallas County, Texas	297	8,532	8,584	8,679	236,274,817	2,114	1.07	1.09
Wake County, North Carolina	210	8,190	8,233	8,350	201,767,329	1,880	3.21	3.50
Dane County, Wisconsin	106	8,356	8,532	8,348	181,190,712	1,657	5.00	4.79
Orange County, California	289	8,196	8,212	8,324	198,263,445	1,850	1.07	1.03
Suffolk County, Massachusetts	191	7,068	7,041	7,095	169,498,053	1,845	2.18	1.48
San Diego County, California	284	7,066	7,008	6,979	171,458,086	1,879	0.99	0.98
Travis County, Texas	236	6,968	6,939	6,927	182,277,220	2,019	2.00	2.10
Hennepin County, Minnesota	232	6,600	6,704	6,804	132,330,333	1,500	1.40	1.05

100%

# QCEW Data Viewer— coming soon

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- ~~County Tables: released 6/14~~
- ~~Location Quotients by employment and wages: released 1/15~~
- ~~Establishment Size Tables: released 1/15~~
- ~~Multi-period Tables: released 6/15~~
- Data Graphics : released \_\_\_\_\_
- Shift/share, cluster calculator: released \_\_\_\_\_

# QCEW Open Data Files

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- **QCEW response to May 2013 Open Data directive**
- **CSV format:** 33,400 tiny files per year
  - ▶ **Sliced by area:** US, State, MSA, County
  - ▶ **Sliced by industry:** Every industry, every level
- **Directly addressable:** Effectively a static API. Slices can be read directly by apps.
- **Code samples:** R, SAS, VBA/XL, JS, PHP, Perl, Python, C#

# Open Data Home

The screenshot shows a web browser window displaying the Bureau of Labor Statistics (BLS) website. The browser's address bar shows the URL <http://www.bls.gov/cew/opendata.htm>. The page header features the BLS logo and navigation links such as "A to Z Index", "FAQs", "About BLS", "Contact Us", and "Subscribe to E-mail Updates". The main navigation bar includes "Home", "Subjects", "Data Tools", "Publications", "Economic Releases", "Students", and "Beta".

## Quarterly Census of Employment and Wages

### QCEW Open Data Access

QCEW provides a collection of CSV files designed to allow third party programmers, developers, and organizations to retrieve published QCEW data in CSV format. This page provides links to QCEW CSV file documentation as well as to sample code in several languages.

QCEW CSV files are sliced by industry, by area, and by establishment size-class. An industry slice contains all the records associated with the industry for a single time period. An area slice contains all the records associated with the area for a single time period. A size slice contains all records published within a specific size class for the first quarter of a specified year. All published QCEW data are provided by each set of slices.

QCEW data slices can be directly accessed from various programming languages. QCEW has provided simple examples in several languages. These examples are intended to be stepping stones for advanced data users and software developers. These examples are provided as is and may be outdated. Some modification may be necessary to successfully retrieve data.

QCEW's Data Viewer interface uses these same CSV files to build custom HTML tables based on selected criteria. A link to the Data Viewer is provided below.

- [QCEW Open Data Access: CSV Data Slices](#)  
Provides details about the different types of data-slice files.
- [QCEW Open Data Access: Sample Code and Examples](#)  
Provides data access examples in several different programming languages.
- [QCEW Data Viewer](#)  
Builds custom HTML tables using the CSV Data Slices as input.

The left sidebar contains a "BROWSE QCEW" section with links to "QCEW HOME", "QCEW OVERVIEW", "QCEW NEWS RELEASES", "QCEW DATABASES", "QCEW PUBLICATIONS", "QCEW FAQs", and "CONTACT QCEW". Below this is a "SEARCH QCEW" section with a search box and a "Go" button. Further down is a "QCEW TOPICS" section with links to "READY-TO-GO TABLES", "NEWS RELEASE", "TOOLS AND TUTORIALS", "DATA FILES (1975-CURRENT)", "OPEN DATA ACCESS", "FLAT FILE FORMATTERS", and "PUBLICATIONS".

# QCEW Links

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- Home page: <http://www.bls.gov/cew>
- State and County Map App:  
<http://beta.bls.gov/maps/cew/us>
- Hurricane Evacuation Zone Maps and Tables:  
[http://www.bls.gov/cew/hurricane\\_zones/home.htm](http://www.bls.gov/cew/hurricane_zones/home.htm)
- QCEW Data Viewer:  
[http://www.bls.gov/cew/apps/data\\_views/data\\_views.htm#tab=Tables](http://www.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables)
- QCEW Open Data:  
<http://www.bls.gov/cew/opendata.htm>

# Contact Information

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