

Improving New Foreign Direct Investment State Employment Statistics Using QCEW Data

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H-3: Data integration techniques for improving economic statistics on multinational enterprises
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BEA's foreign direct investment in the United States (FDIUS) statistics

FDIUS

Direct transactions and positions statistics

Data on the amount of direct investment
Included in the ITAs and IIP

Activities of U.S. affiliates of foreign MNEs

Data on what is happening with that investment
Items include employment, income statements, R&D expenditures, etc.

New Foreign Direct Investment in the United States

Survey of new foreign direct investment in the United States (New FDIUS) measures:

- Acquisitions of existing U.S. businesses
- Establishments of new U.S. businesses
- Expansions of existing U.S. affiliates

Expenditures and employment of investments

- Country of ultimate investor
- Industry of the U.S. affiliate
- Location of investment by state

Employment by state is a featured statistic from this dataset

- ➔ BEA collected New FDIUS from 1980 to 2008
 - Discontinued for budgetary reasons
- ➔ Survey re-introduced in 2014
- ➔ Due to strong demand, BEA expanded data set to include state data
 - One state is reported on the form to minimize respondent burden
- ➔ Most New FDIUS activity are acquisitions of U.S. businesses
 - Can operate in multiple states
 - Can overstate employment in reported state
- ➔ QCEW microdata available through data-sharing agreement with BLS
 - Employment of each U.S. business establishment

➤ Better estimate state-level employment for U.S. entities newly acquired by foreign investors

- Increase accuracy and utility for data users

➤ Integrate administrative data from the QCEW microdata from BLS

- No increase of burden on BE-13 survey respondents

➤ QCEW microdata available to BEA through data-sharing agreement

- Employment of each U.S. business establishment
- BEA only has access to microdata for 'participating' states

Review all acquisitions with 3,000 or more employees reported



Search QCEW microdata for employment at establishments of acquired U.S. companies

Use in-house developed Shiny-based app to search establishments

- Microdata covers three-quarters of establishments
- Includes 36 states, Puerto Rico, USVI, and D.C.



Apportion non-sharing states based on industry of the acquired entity

Non-sharing states apportionment methodology

**Find employment in sharing states by searching the QCEW microdata;
calculate the remaining employment**

Use QCEW employment data by industry and state

**Calculate proportion of total non-sharing employment by industry
and state**

**Apply proportion above for non-sharing states to the
remaining employment to estimate values for those states**

Conduct web search for any available location information

Non-sharing states - example

- XYZ company with 6,500 employees reported on BE-13A form
- 4,400 employees identified in QCEW microdata
- 2,100 remaining that must be apportioned
- Industry code is 4522 (department stores)

State	% of non-sharing employment for 4522 by state	Estimated Employment
New York	28.0%	588
Massachusetts	13.4%	281
Hawaii	4.4%	92
Mississippi	2.1%	44
Vermont	0.7%	15

Results

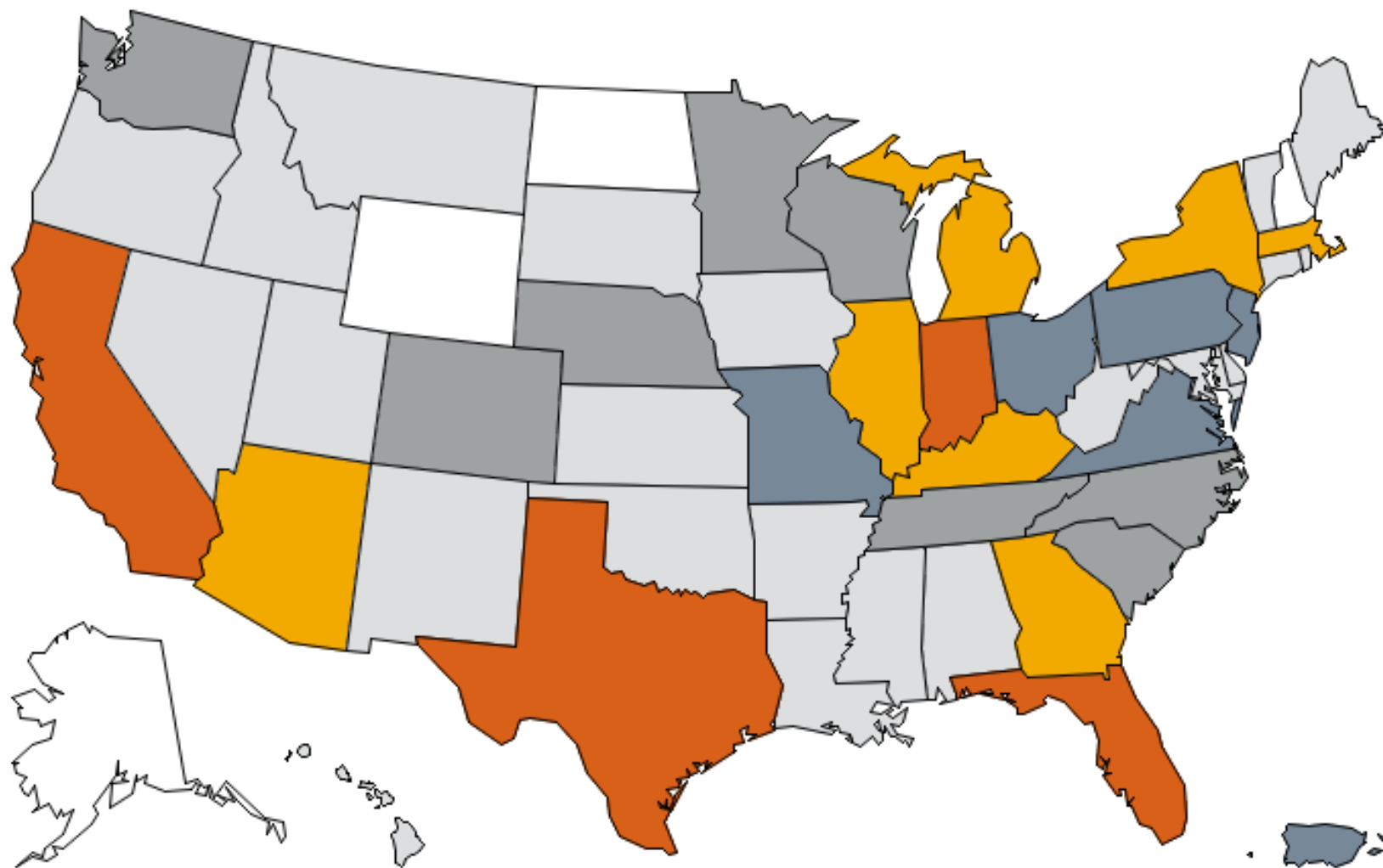
Reviewed all eligible companies for survey years 2018-2021

On average, 24 percent of employment remained in state selected on survey form

Fewer suppressed cells in tables

Higher employment in states which previously had zero or near-zero reported employment

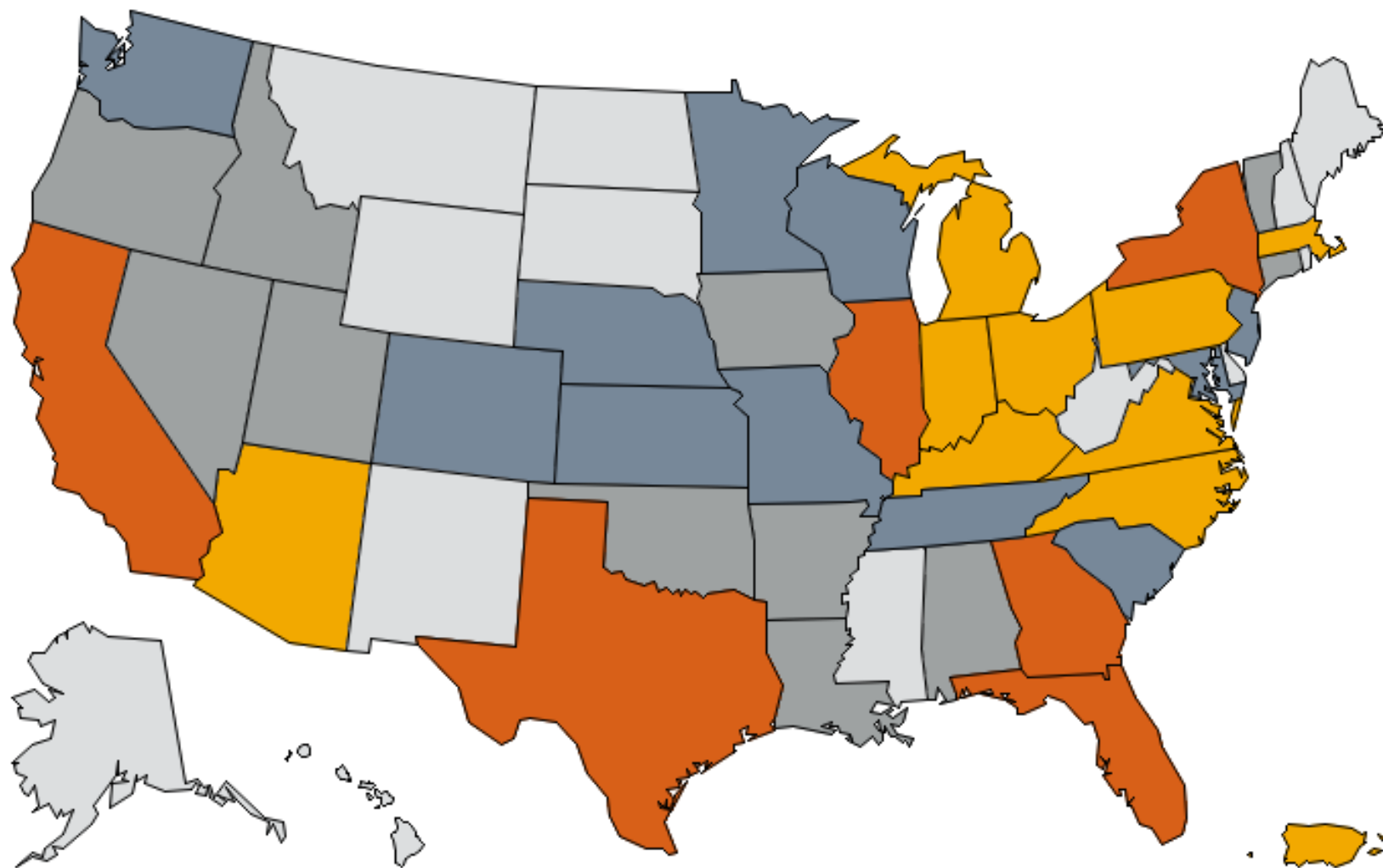
Total Current Employment by State 2020 (previously published estimates)



Thousands of employees

0.0 0.1-0.9 1.0-2.4 2.5-4.9 5.0-9.9 10.0+

Total Current Employment by State 2020

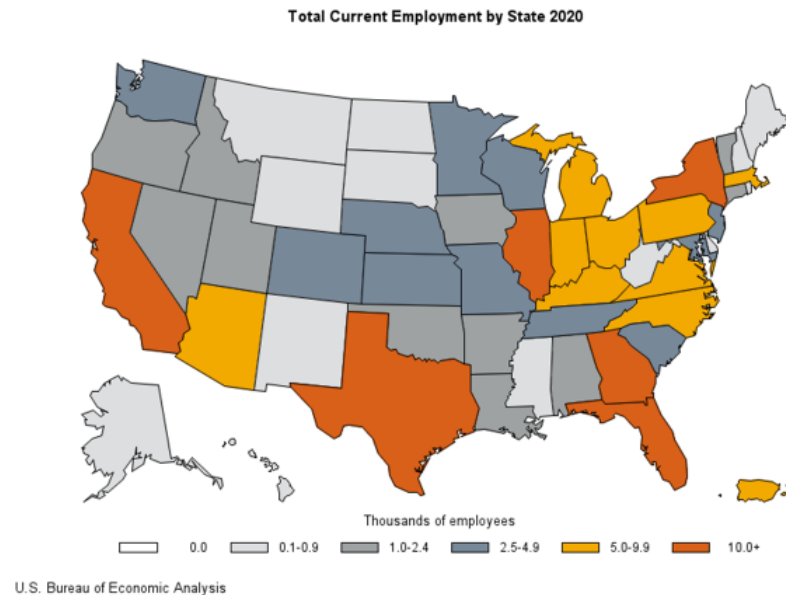


Thousands of employees

0.0 0.1-0.9 1.0-2.4 2.5-4.9 5.0-9.9 10.0+

Benefits of the new methodology

- Better estimate state-level employment for U.S. entities newly acquired by foreign investors
- Increase accuracy and utility for data users
- Fewer suppressed cells in table
- Higher employment in states which previously had zero or near-zero reported employment



- New FDIUS statistics: <https://www.bea.gov/data/intl-trade-investment/new-foreign-direct-investment-united-states>
- BEA's International Accounts Concepts and Methods: <https://www.bea.gov/system/files/2023-06/iea-concepts-methods-2023.pdf> (chapter 33)
- BE-13 Survey: www.bea.gov/be13
- Questions?: Internationalaccounts@bea.gov