The Longitudinal Employer-Household Dynamics Program (LEHD)

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What is the LEHD program?

An innovative federal statistical program, collecting existing data and...

..linking it together to provide new information sources at low cost

New linked national jobs data for the U.S.
The LEHD program is one approach to solve a very hard problem faced by statistical agencies......

- Namely, that demand for data is increasing, while budgets at the agencies are stagnant or declining
  - LEHD leverages *existing* data – administrative, census, and survey data – by linking it in novel ways
  - Provides new data at very low cost
  - No additional respondent burden
How the data is brought together:

- **Unique Local Employment Dynamics (LED)**
  - state/federal data sharing partnership
  - 50 states (& DC) share UI and QCEW data with Census
  - Census links UI and QCEW, links additional demographic and business data from Census, also jobs data from OPM, and residential data.
  - Census and states partner in discussion of new data products, data tools, and outreach.
Spectrum of Data Access

1. Quarterly Workforce Indicators,
2. LEHD Origin-Destination Data,
3. Job-to-Job Flows

Very restricted – only handful of Census staff can access identifiers

6. Proprietary Data, or Sensitive, Classified Data (with identifiers)

External researchers can access confidential microdata (no PII) under approved Census projects. All output reviewed for disclosure before can leave the center

3. Public Use Files

5. Access at Data Use Center or Enclave

Open  Restricted
Confidential Microdata Research Access:

- Available through Census Research Data Centers
  - Researchers can apply for microdata access at one of many RDCs at universities throughout the country
  - Proposals are reviewed for scientific merit, need for confidential data, and disclosure risk (e.g., modeled results vs. tables)
  - If approved, all output from project must go through disclosure review by Census staff before it can leave the center
- Not all states data is available in RDCs
- At present there are about 17 ongoing projects using LEHD data in the RDCs
Public Use Data Products:

- Quarterly Workforce Indicators (QWI)
- Job-to-Job Flows (J2J)
  - Both protected by noise infusion. QWI suppresses very small cells than cannot be protected with noise; J2J uses synthetic values
- LEHD Origin-Destination Employment Data
  - Employment data is protected by noise infusion and synthetic data; residence data is synthetic
LODES: Where workers live, and where they work

- This map shows LODES data of where residents of Vancouver, Washington work

- **Popular uses:**
  - local economic development
  - business site selection
  - emergency planning
Quarterly Workforce Indicators:

- Can see workforce composition by detailed firm characteristics
- Such as what share of the workforce at startup firms is female?

Note: "New Firms" are firms of age 0 or 1. "Actual" is the percentage of female workers at new firms observed in the data. "Constant 2002 Industry Shares" measures the hypothetical percentage of female workers at new firms, assuming that the distribution of new firms across industries remained constant at their 2002Q2 levels. Data is for privately-owned firms and excludes workers in the following states: AZ, AR, DC, MA, MS & NH.

Source: U.S. Census Bureau, Center for Economic Studies, Quarterly Workforce Indicators, 2013 Q3 Release
National Job-to-Job (J2J) flows series:

Note: Shaded regions indicate NBER recession quarters. All data are seasonally adjusted. These J2J tabulations do not include planned adjustments to the J2J series to account for partially-missing geography early in the time series.
To sum up:

Local Employment Dynamics (LED) statistical program links existing business and jobs data to create new sources of local, detailed, labor market information

-- QWI
-- OnTheMap
-- Job-to-Job Flows
-- Microdata research

Questions? Comments?
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