Longitudinal Employer-Household Dynamics (LEHD) Program

Jeremy S. Wu
U.S. Census Bureau
May 11, 2005
"LEHD … is the next generation of data collection and dissemination for the Census Bureau."

Charles Louis Kincannon
Director
U.S. Census Bureau

Before the House Subcommittee on Federalism and the Census
May 10, 2005
Overview

- Background
- The LEHD concept
- Where we are
  - Mapping pilot
- What LEHD offers
- How LEHD may supplement ACS
Background

• Started in 1998-1999

• Research project to maximize data availability while protecting confidentiality

• Seed funding from
  – National Science, Sloan, and other Foundations
  – the Census Bureau
  – BLS, BTS, ETA, HHS, NIA, SSA, and others
The LEHD Concept

Longitudinal Employer-Household Dynamics Program (LEHD)

Censuses

Surveys

Administrative Records

Local Transportation Dynamics

Local Employment Dynamics

Local Immigration Dynamics
Local Employment Dynamics (LED)

- A voluntary partnership between state Labor Market Information agencies and the Census Bureau

- States supply quarterly
  - unemployment insurance wage records
  - ES-202 business establishment records

- The Census Bureau merges quarterly
  - the records with other data to produce Quarterly Workforce Indicators (QWI)
Status of LED

✓ 38 states and DC are partners, about 83% of population

✓ 32 states sending in data for processing, about 71% of population

✓ 27 states have data posted on the website, almost 63% of population
LEHD Website

U.S. Census Bureau
Longitudinal Employer-Household Dynamics

Quick Links
- Satisfaction Survey
- QWI Online
- On the Map
- Local Workforce
- Top Industries

What's New?
- 04/14/05: Customer Satisfaction Survey: LED Web Site
- 03/28/05: New State Representatives on LED Steering Committee
- 03/08/05: Alabama QWI Data on LED Website
- 02/10/05: Vermont QWI Data on LED Website
- 02/10/05: Profile of Older Workers in Colorado Released

Q&A
- What is LEHD?
- What is QWI?
- What are the OWI?

DID YOU KNOW?
...that of the industries in Virginia that employed more than 500 workers 65 years and older in 2002, the highest paying was engineering, accounting, and research ($4,820 a month)?
Mapping Pilot

• Funded by ETA
  – Create data infrastructure
  – Develop online application

• 12+2 pilot states
  – CA, CO, FL, ID, IL, MN, MO, NC, OR, PA, WA, VA
  – AL, TX

• Live demonstration of prototype by John Carpenter – poster session
Where do workers living in S. Richmond, VA, go to work?
Where do workers working between Minneapolis/St Paul live?
Some Additional Features

- Multiple, optional mapping layers
- Companion reports on places of work and residence
- Potential selection criteria on age, gender, earnings, industry
- Longitudinal data to show trends and patterns of worker migration and regional or business growth
What LEHD Offers

- Proven concept with track record on LED
- Potential supplier of new, timely, and low cost data for transportation planning and analysis
- Dynamics of trends and patterns
- Demographic info on age and gender
- Research to integrate with transportation-related administrative records and surveys
Small Area Estimation

- Covers private, non-agricultural workers under unemployment insurance in small and large areas
- Includes about 98% of private, non-ag workers
- Alleviates concern about small sample size or large sampling errors
  - Session 6 - R. Eash
- Is available as frequently as quarterly
State-of-the-art Confidentiality Protection

✓ Noise addition and synthetic data
  ✓ Session 6 – D. Banks and J. Reiter

✓ Identity concealed

✓ Only approved projects

✓ Title 13 legislation (fine and prison if breached)

✓ Approved disclosure avoidance

✓ Data stay in secure computer centers
How LEHD May Supplement ACS

- More detail presentation
  - Session 8 – J. Wu and M. Roemer

- Geo-coding of addresses

- Integrating and refining data to meet requirements for transportation planning, research, and development

- Filling temporal and information gaps, such as for small areas and multiple job holders
## Comparing Long Form, ACS, and LEHD

<table>
<thead>
<tr>
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<th>Long Form (CTTP)</th>
<th>ACS</th>
<th>LEHD</th>
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<tbody>
<tr>
<td><strong>Frame</strong></td>
<td>HHs &amp; GQs</td>
<td>HHs &amp; GQs</td>
<td>UI Workers/Firms</td>
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<tr>
<td><strong>Sample rate</strong></td>
<td>~ 1 in 6 Per year</td>
<td>~ 1 in 8 Over 5 years</td>
<td>~ 1 in 1 4 times a year</td>
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<tr>
<td><strong>Release Frequency</strong></td>
<td>Decennial</td>
<td>Annual</td>
<td>Quarterly</td>
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<td><strong>Coverage</strong></td>
<td>Nationwide</td>
<td>Nationwide</td>
<td>39 states ↑</td>
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<td><strong>Reference Period</strong></td>
<td>Week</td>
<td>Week</td>
<td>Quarter</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Supplementing ACS

Merge multiple data “snapshots” into information “movies” about the U.S. society and economy.
LED Contact Information

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