Local Employment Dynamics Data: Labor Market Analysis Applications

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Introduction to LED & LEHD

- **Local Employment Dynamics (LED)** is a voluntary partnership between state labor market information agencies and the U.S. Census Bureau to develop new information about local labor market conditions at low cost, with no added respondent burden, and with the same confidentiality protections afforded census and survey data.

- **Longitudinal Employer-Household Dynamics (LEHD)** is an innovative program within the U.S. Census Bureau. We use modern statistical and computing techniques to combine federal and state administrative data on employers and employees with core Census Bureau censuses and surveys while protecting the confidentiality of people and firms that provide the data.
State’s Role in LEHD Data Development

Administrative Records from States

- Base Wage File (Employee Information)
- Quarterly Census of Employment and Wages (QCEW)
Quarterly Workforce Indicators (QWI)

- Economic Indicators
  - Employment
  - Net Job Flows
  - Job Creation
  - New Hires
  - Separations
  - Job Turnover
  - Earnings

- Economic Indicator Query Variables
  - Geography
    - State
    - County
    - Metropolitan
    - Workforce Investment Area
  - Demography
    - Age and Gender
  - Industry
    - NAICS Sectors, Subsectors, Ind. Groups
  - Variables available in 2011
    - Race and Ethnicity
    - Education Attainment
    - Federal Employment
    - Firm Age and Size
LED Application: Analyze Female Workforce Trends

- Nontraditional Occupations For Women
  - The Bureau of Labor Statistics defines a nontraditional occupation for women as one in which women comprise 25 percent or less of total employment. California has over 200 occupations that can be classified as nontraditional for women.

- Stakeholders Interested:
  - Public Policy Developers
  - Workforce Development Agencies
  - Job Seekers
  - Higher Education
  - Training Providers
  - Civic Organizations

- QWI Based Analysis
  - Female Workforce Employment
    - 1998 6.2 million (47% of workforce)
    - 2008 7.3 million (49% of workforce)
  - Female Workforce Majority by Industry
    - 1998 4 NAICS Industry Sectors
    - 2008 7 NAICS Industry Sectors

- New Hires Data
  - Gains in Construction and Management of Companies and Enterprises Industries
LED Application: Analyze Male Workforce Trends

- LOS ANGELES TIMES Article: Recession Hits Male Workers More
  
  “Men are getting laid off at a higher rate than women. One reason may be that male-dominated sectors such as construction, manufacturing...have been hardest hit.”

- Stakeholders Interested:
  - Public Policy Developers
  - Workforce Development Agencies
  - Job Seekers
  - Higher Education
  - Training Providers
  - Civic Organizations

- QWI Based Analysis

  Male Workforce: 2008 Top Five Largest Industries
  - Manufacturing (66% share of emp.)
  - Retail Trade
  - Accommodation and Food Services
  - Construction (79% share of emp.)
  - Professional, Scientific, Tech.

  - Declines in job creation totals twice as high as the female workforce over the period.
  - Data suggests the declines are attributed to high employment concentrations in declining industries.
LED Application: Analyze Workforce Trends by Workforce Investment Area (WIA)

Female Workforce Employment is Larger than the Male Workforce by WIA (2008)

- Mendocino County WIA +1,000
- Marin County WIA +1,100
- Foothill Consortium WIA +3,400
- Southeast LA County (SELACO) WIA +3,200
- NoRTEC WIA +2,700
- Sacramento County WIA +1,300
- Oakland City WIA +4,400
- Mother Lode Consortium WIA +1,300
- San Bernardino City WIA <100

- Quarterly Workforce Indicator Data Applied
  - Employment
  - Gender (Demographic)
  - WIA (Geographic)

- Stakeholders Interested:
  - Workforce Investment Boards
  - Public Policy Developers
  - Higher Education
  - Training Providers
LED Application: Analyze Trends by County

**Job Creation Rate: Year to Year Percent Change**

<table>
<thead>
<tr>
<th>Year Pair</th>
<th>Contra Costa County</th>
<th>Sacramento County</th>
<th>San Francisco County</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-1999</td>
<td>24.6%</td>
<td>-11.8%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>1999-2000</td>
<td>20.9%</td>
<td>-9.6%</td>
<td>-5.6%</td>
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<tr>
<td>2000-2001</td>
<td>9.0%</td>
<td>-16.9%</td>
<td>-6.7%</td>
</tr>
<tr>
<td>2001-2002</td>
<td>-2.8%</td>
<td>-8.4%</td>
<td>-4.1%</td>
</tr>
<tr>
<td>2002-2003</td>
<td>-4.1%</td>
<td>-6.7%</td>
<td>-4.0%</td>
</tr>
<tr>
<td>2003-2004</td>
<td>-1.8%</td>
<td>-1.4%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>2004-2005</td>
<td>-4.4%</td>
<td>-7.0%</td>
<td>-16.9%</td>
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<tr>
<td>2005-2006</td>
<td>-6.7%</td>
<td>7.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2006-2007</td>
<td>-5.6%</td>
<td>3.4%</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

**Net job flows = job creations - job destructions**

Source: Definitions of Fundamental LEHD Concepts
**LED Application: Analyze Trends by County**

**QWI Net Job Flows: How have Contra Costa County's Industries Fared?**

- **Net job flows = job creations - job destructions**

Source: Definitions of Fundamental LEHD Concepts
Contra Costa County Job Creation and Job Destruction: Industry Analysis

LED Application: Analyze Trends by County
Net job flows = job creations - job destructions

Source: Definitions of Fundamental LEHD Concepts
LED Application: Workforce Trends by Age

Quarterly Workforce Indicator Data Applied
- Job Turnover
- Age (Demographic)
- Statewide (Geographic)

QWI Based Analysis
- Age Groups 14-24
  - Turnover Lowest in 2\textsuperscript{nd} Qtr. (e.g., summer employment)
  - Highest in 3\textsuperscript{rd} Qtr.
    (e.g., post-secondary and secondary education commitments)
- Age Groups 55+
  - Historically low turnover rate qtr to qtr.
    (e.g., supplement income)

Turnover Rate \( = (1/2) \times (\text{full-quarter accessions} + \text{full-quarter separations}) / \text{employment stable jobs} \)
Quarterly Workforce Indicators

The Local Employment Dynamics (LED) program at the U.S. Census Bureau, together with the California Employment Development Department, provides summaries of Quarterly Workforce Indicators at the county and local Workforce Investment Area levels cross-referenced with such factors as gender, age, and industry. The LED program Web site is at http://led.census.gov/

Online data may be accessed to research issues of interest to the Workforce Partners community, such as:

- Measures of hires and separations for different types of workers - so that workforce development boards know what job skills are needed in their local areas.
- Measures of earnings per geographic areas - so that job search advisers can provide guidance on job location decisions.
- Measures of job gain and loss for different types of workers - so that economic development agencies know where jobs are created and for whom.

The data below provide industry classified by the North American Industry Classification System (NAICS).

The data below will start with Alameda County, California. Change the geography, the industry, the time period or other criteria to view additional data.

Use the “For More Information” link below to see definitions of terms.
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