

# New Data for Decision-makers:

**Julia Lane**  
**Senior Research Fellow**  
**And the LEHD Staff**

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# Overview

**Background**

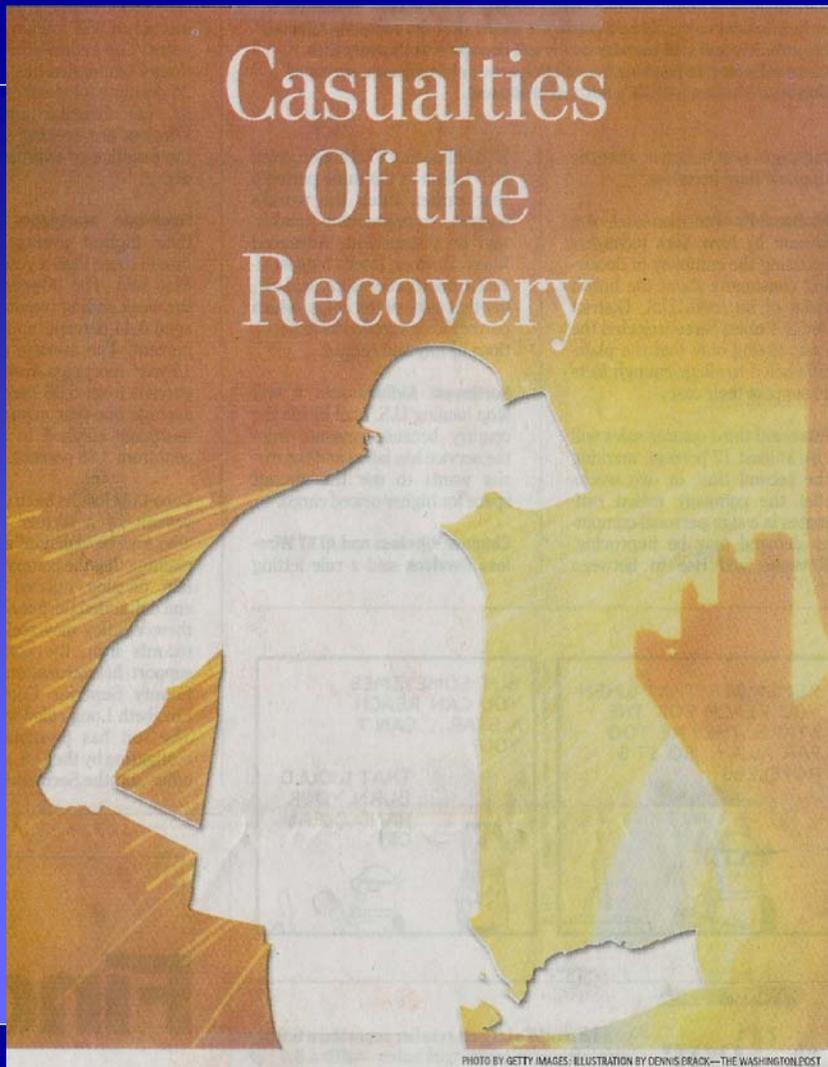
**The Challenge**

**Local Data: The Quarterly Workforce Indicators**

**Local Data: Mapping Applications**

**Next Steps**

# Background



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## Jobs Cut Since 2001 Are Gone for Good, Study Says

By JONATHAN WEISMAN  
Washington Post Staff Writer

**T**he vast majority of the 2.7 million job losses since the 2001 recession began were the result of permanent changes in the U.S. economy and are not coming back, which means the labor market will not regain strength until new positions are created in novel and dynamic economic sectors, a Federal Reserve Bank of New York study has concluded.

The findings by Erica L. Groshen, an assistant vice president at the New York Fed, and Simon Potter, a senior economist, will be sobering news to policymakers scrambling to reverse the longest hiring downturn since the Depression. The conclusions of the study, which was published last week, were underscored yesterday by two Labor Department reports showing a surge in corporate productivity even as work hours are plunging.

The Labor Department said productivity—the amount an employee produces for each hour of work—rose at a stronger-than-expected annual rate of 6.8 percent in the April-to-June quarter.

The government will release August's unemployment and payroll levels today, and most economists expect little change since July, even though other economic indicators have improved considerably in recent weeks.

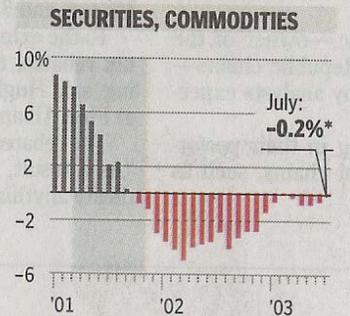
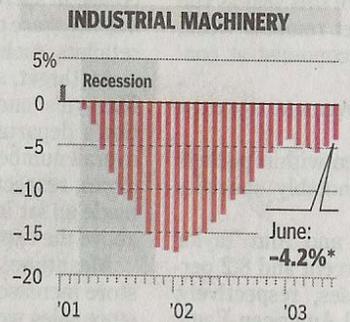
"I hope in September and October we will see some job growth," said Dean Baker, co-director of the Center for Economic and Policy Research, who added, however, that such a bad job market "is not

See ECONOMY, E3, Col. 1

## Still Hurting

Several areas of the economy have continued to lose jobs, even after the 2001 recession ended.

**Total sector employment**  
Percent change from same month previous year



\*preliminary  
SOURCE: Bureau of Labor Statistics

THE WASHINGTON POST

Washington Post, Sept 5, 2003

# Questions for Decision-Makers

## Employers

- Where are the workers?
- How can I retain workers?
- What should I pay workers?

## Job-seekers

- Where are the jobs?
- What are the earnings?

## Transportation Planners

- Where are the workers AND the jobs?
- Where are the high growth areas?

# **Strategy 1: Generate more local and current information**

**Small geographic areas**

**Demographic sub-groups**

**New Measures of Economic Activity**

**- Dynamics, rather than levels**

**Timely**

**Comparable to other areas**

**Historic**

# Strategy #2 Deliver better analysis & interpretation

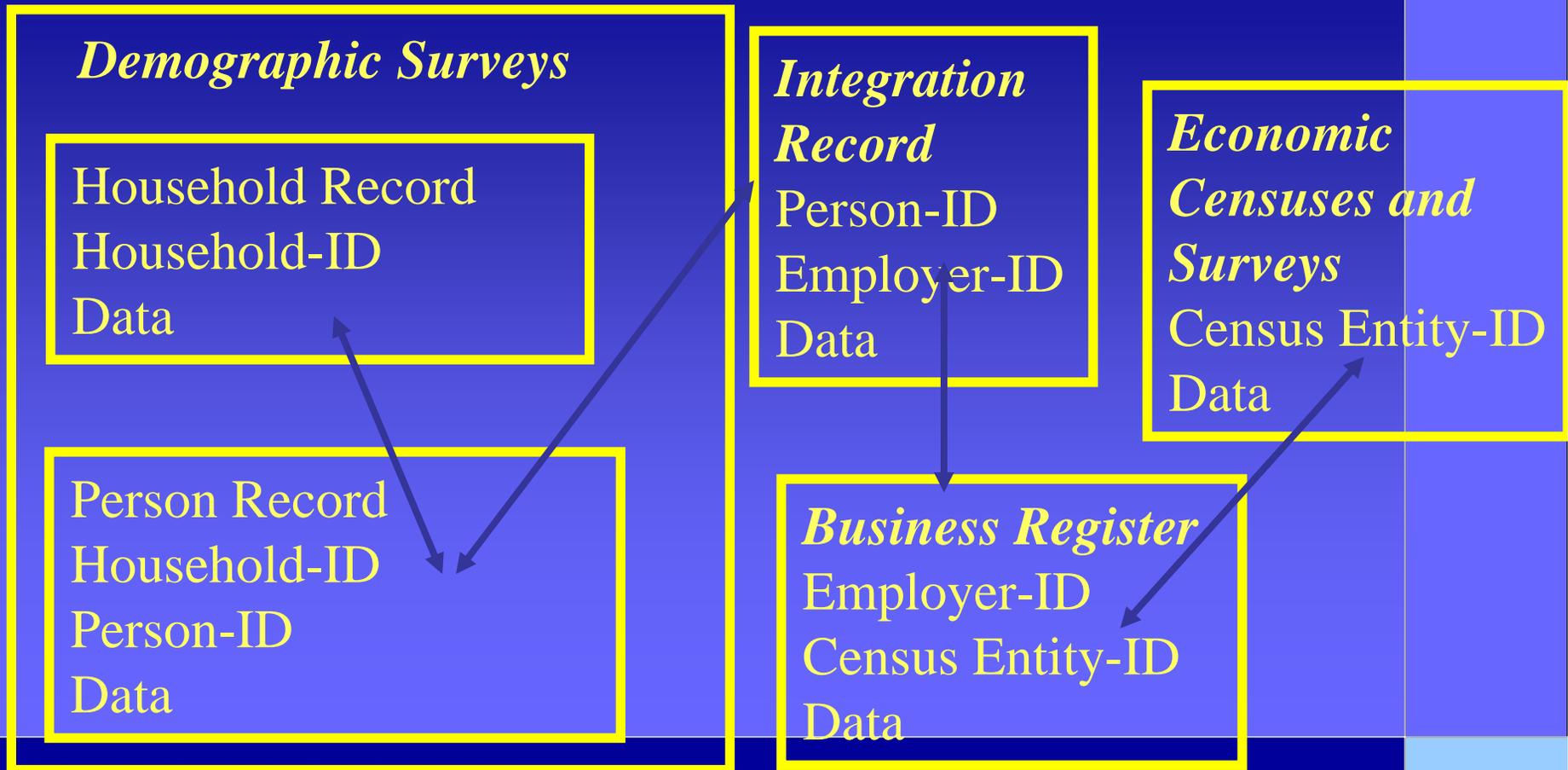
## What questions do the data answer?

- Analyse and interpret
- Identify trends
- Provide templated reports for employers and WBS

## Support economic development

- Mapping capability

# The Longitudinal Employer - Household Dynamics Program



# Confidentiality Protections

**Anonymized data**

**Approved Projects only**

**Statistical Purposes only**

**Title 13 (\$250,000 fine/5 years in jail if confidentiality breached)**

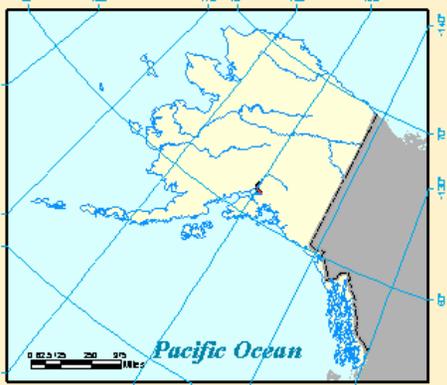
**Disclosure review**

**Firewall within firewall within firewall protection**

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## Alaska



## Hawaii



## LED Partner States

Updated: 09/01/2004

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# Quarterly Workforce Indicators

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# QWI Entry Points

The screenshot shows a Microsoft Internet Explorer browser window displaying the U.S. Census Bureau website. The address bar shows <http://lehd.dsd.census.gov/led/00/>. The page header includes the U.S. Census Bureau logo and the text "Local Employment Dynamics". Below this is a navigation menu with items like "Home", "Quarterly Workforce Indicators", "Low Wage Work", "Transportation", "Human Capital and Productivity", "Aging and Pension Benefits", "Confidentiality Research", "Training", "Documentation", "About", and "Contact Us". The "Quarterly Workforce Indicators" item is circled in red. The main content area features a "Home" section with a paragraph: "The LED Program at the Census Bureau, together with its [state partners](#), provides new information - the [Quarterly Workforce Indicators \(QWI\)](#) - on Local Employment Dynamics that is:   
**Local** at the county and sub county level - so that decisions can be made in the right context   
That has information on **Employment** for workers in different industries and different age and sex groups - so that you know where the jobs are - together with earnings - so you know what people are getting paid   
And that provides **Dynamic** information on the rapidly changing economy - with information on where jobs are being created and destroyed, how much turnover there is in each industry together with long-term trends   
We're developing a number of products for employers, economic development agencies, transportation agencies - so keep an eye on our website to see what we're up to. But our first product - the [Quarterly Workforce Indicators \(QWI\)](#) - is available for 22 states. Click on the map above to see new information about your industry's employment, job creation, turnover, earnings and new hires by age and sex - for your county your metro area, and your workforce information area." A map of the United States with "QWI Online" text is circled in red, with a callout box that says "Click here for instant access to the data". The footer includes "Census 2000 | Subjects A to Z | Search | Product Catalog | Data Access Tools | FOIA | Privacy Policies | Contact Us | Home" and the USCENSUSBUREAU logo with the tagline "Helping You Make Informed Decisions". The taskbar at the bottom shows various open applications and the system clock at 6:04 PM.

[Quarterly Workforce Indicators](#)

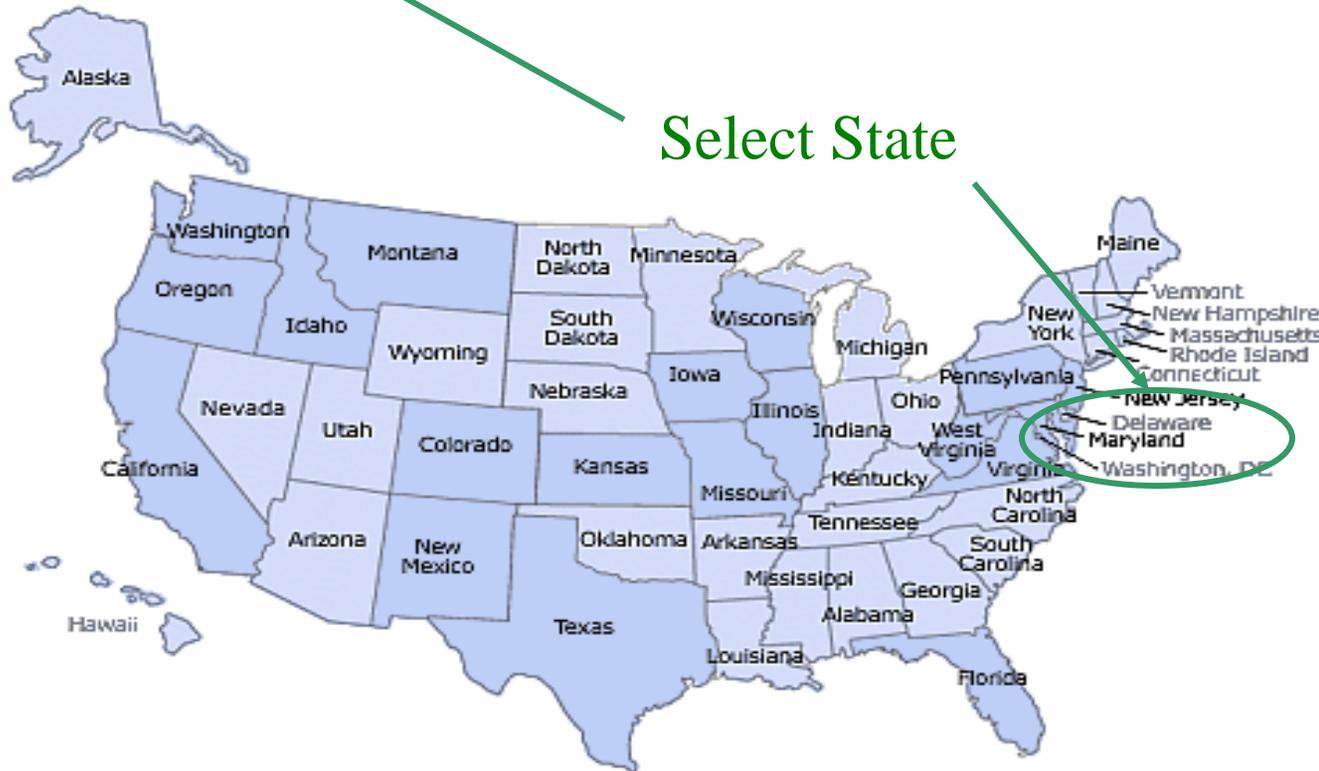
# QWI Online

Select a state from this list or use the map below to access SIC-based statistics. Click [here](#) to access [NAICS-based statistics](#).

Maryland

Switch between SIC and NAICS

Select State



## LEHD Maryland County Reports - Quarterly Workforce Indicators

Select Criteria below. A new report will be created below as selections change.

Year  Geographic Grouping  or **Information by Detailed Industry**  
 Quarter  County   
 Sex  Industry   
 AgeGroup  Ownership

 [Download Dataset](#)
 [Print Table](#)

QWI Quick Facts	Allegany County (Q2)	Avg:			
Total Employment	28,155				
Net Job Flows	466				
Job Creation	1,796		1,509	191,033	161,438
New Hires	4,330		3,756	419,656	370,556
Separations	4,992		5,420	473,239	455,571
Turnover	11.0%		13.3%	10.9%	11.4%
Avg Monthly Earnings	\$2,385.00		\$2,374.50	\$3,348.00	\$3,320.00
Avg New Hire Earnings	\$2,812.00		\$2,740.00	\$2,557.00	\$2,443.00

 [View Detailed Comparison Reports](#)

[For more information](#)

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## LEHD Maryland Industry Reports - Quarterly Workforce Indicators

Geographic Reports: [County](#) | [Metro](#) | [WIB](#)

Top Level Industry Reports: [County](#) | [Metro](#) | [WIB](#)

Select	MoreNAICS data code	Description	Name	Value
<input checked="" type="radio"/>	<a href="#">More</a> 11	<a href="#">Agriculture, Forestry, Fishing and Hunting</a>	Year:	2003
<input type="radio"/>	<a href="#">More</a> 21	<a href="#">Mining</a>	Quarter:	Q2
<input type="radio"/>	<a href="#">More</a> 22	<a href="#">Utilities</a>	AgeGroup:	14-99
<input type="radio"/>	<a href="#">More</a> 23	<a href="#">Construction</a>	Sex:	Male and Female
<input type="radio"/>	<a href="#">More</a> 31-33	<a href="#">Manufacturing</a>	Ownership:	All (1-5)
<input type="radio"/>	<a href="#">More</a> 42	<a href="#">Wholesale Trade</a>	County:	24 Maryland
<input type="radio"/>	<a href="#">More</a> 44-45	<a href="#">Retail Trade</a>		

[Download Dataset](#) [Print Table](#)

QWI Quick Facts	Agriculture, Forestry, Fishing and Hunting (Q2)	Agriculture, Forestry, Fishing and Hunting (Avg: previous 4 quarters)	All Naics sectors (Q2)	All Naics sectors (Avg: previous 4 quarters)
Total Employment	4,688	4,321	2,297,091	2,285,932
Net Job Flows	615	427	61,717	13,695
Job Creation	897	691	191,033	161,438
New Hires	1,481	1,122	419,656	370,556
Separations	1,529	1,113	473,239	455,571
Turnover	11.5%	10.2%	10.9%	11.4%
Avg Monthly Earnings	\$2,282.00	\$2,151.50	\$3,348.00	\$3,320.00
Avg Monthly Hours	\$1,676.00	\$1,596.50	\$2,557.00	\$2,443.00

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## 2002 NAICS Definitions

### 11 Agriculture, Forestry, Fishing and Hunting

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#### 11 Agriculture, Forestry, Fishing and Hunting

##### The Sector as a Whole

The Agriculture, Forestry, Fishing and Hunting sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals from a farm, ranch, or their natural habitats.

The establishments in this sector are often described as farms, ranches, dairies, greenhouses, nurseries, orchards, or hatcheries. A farm may consist of a single tract of land or a number of separate tracts which may be held under different tenures. For example, one tract may be owned by the farm operator and another rented. It may be operated by the operator alone or with the assistance of members of the household or hired employees, or it may be operated by a

## LEHD Maryland Industry Reports - Quarterly Workforce Indicators

Geographic Reports: [County](#) | [Metro](#) | [WIB](#)

Top Level Industry Reports: [County](#) | [Metro](#) | [WIB](#)

Select	More data	NAICS code	Description	Name	Value
<input type="radio"/>	...	11	<a href="#">Agriculture, Forestry, Fishing and Hunting</a>	Year:	2003
<input type="radio"/>	<a href="#">More</a>	111	<a href="#">Crop Production</a>	Quarter:	Q2
<input checked="" type="radio"/>	<a href="#">More</a>	112	<a href="#">Animal Production</a>	AgeGroup:	14-99
<input type="radio"/>	<a href="#">More</a>	113	<a href="#">Forestry and Logging</a>	Sex:	Male and Female
<input type="radio"/>	<a href="#">More</a>	114	<a href="#">Fishing, Hunting and Trapping</a>	Ownership:	All (1-5)
<input type="radio"/>	<a href="#">More</a>	115	<a href="#">Support Activities for Agriculture and Forestry</a>	County:	24 Maryland

 [Download Dataset](#)

 [Print Table](#)

QWI Quick Facts	Animal Production (Q2)	Animal Production (Avg:previous 4 quarters)	All NAICS subsectors (Q2)	All NAICS subsectors (Avg:previous 4 quarters)
 Total Employment	1,283	1,251	2,297,091	2,285,932
 Net Job Flows	60	36	61,717	13,695
 Job Creation	115	93	191,033	161,438
 New Hires	173	168	419,656	370,556
 Separations	260	224	473,239	455,571

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# LEHD Maryland Industry Reports - Quarterly Workforce Indicators

Geographic Reports: [County](#) | [Metro](#) | [WIB](#)

Top Level Industry Reports: [County](#) | [Metro](#) | [WIB](#)

Select	MoreNAICS data code	Description	Name	Value
<input checked="" type="radio"/>	<a href="#">More</a> 11	<a href="#">Agriculture, Forestry, Fishing and Hunting</a>	Year:	2003
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<input type="radio"/>	<a href="#">More</a> 22	<a href="#">Utilities</a>	AgeGroup:	14-99
<input type="radio"/>	<a href="#">More</a> 23	<a href="#">Construction</a>	Sex:	Male and Female
<input type="radio"/>	<a href="#">More</a> 31-33	<a href="#">Manufacturing</a>	Ownership:	All (1-5)
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<input type="radio"/>	<a href="#">More</a> 44-45	<a href="#">Retail Trade</a>		

Download Dataset Print Table

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Turnover	11.5%	10.2%	10.9%	11.4%
Avg Monthly Earnings	\$2,282.00	\$2,151.50	\$3,348.00	\$3,320.00
Avg Hourly Wage	\$1,676.00	\$1,596.50	\$2,557.00	\$2,443.00

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Year  Geographic Grouping  or [Information by Detailed Industry](#)  
 Quarter  County   
 Sex  Industry   
 AgeGroup  Ownership

 [Download Dataset](#)
 [Print Table](#)

QWI Quick Facts	Allegany County (Q2)	Allegany County (Avg:previous 4 quarters)	Maryland (Q2)	Maryland (Avg:previous 4 quarters)
 Total Employment	28,155	28,797	2,297,091	2,285,932
 Net Job Flows	466	-659	61,717	13,695
 Job Creation	1,796	1,509	191,033	161,438
 <b>New Hires</b>	4,330	3,756	419,656	370,556
 Separations	4,992	5,420	473,239	455,571
 Turnover	11.0%	13.3%	10.9%	11.4%
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 [View Detailed Comparison Reports](#)

[For more information](#)

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## QWI Maryland County Pivot Reports

### Allegany County - Quarterly Workforce Indicators

Close this window

Pivot Column	Data Row(s)	Year(s)
<ul style="list-style-type: none"> <li>County (All Maryland)</li> <li>Industry</li> <li>Sex</li> <li>AgeGroup</li> <li>OwnerCode</li> <li><b>Year</b></li> </ul>	<ul style="list-style-type: none"> <li>Total Employment</li> <li>Net Job Flows</li> <li>Job Creation</li> <li>New Hires</li> <li>Separations</li> <li>Turnover</li> <li>Avg Monthly Earnings</li> </ul>	<ul style="list-style-type: none"> <li>2001</li> <li><b>2002</b></li> <li>2003</li> </ul>

Pivot reports display the **numeric** values of one or more Data fields mapped against the **textual** values of a Pivot Field.

The grid below is automatically updated as you select from the lists on the left. Select individual indicators by combining the ctrl key

[Download Dataset](#) [Print Table](#)

County	QWI Quickfacts	2003_1	2003_2	2003_3
001 Allegany County	Avg Monthly Earnings	\$2,364.00	\$2,385.00	N/A
	<b>Avg New Hire Earnings</b>	<b>\$2,668.00 </b>	<b>\$2,812.00 </b>	N/A
	Job Creation	1,223	1,796	N/A
	Net Job Flows	-1,785	466	N/A
	New Hires	3,182	4,330	5,410
	Separations	5,848	4,992	N/A
	Total Employment	29,439	28,155	28,432
	Turnover	15.5%	11.0%	N/A

# Templates for Employers

## Local Labor Market Scan

1. What kinds of workers work in my industry?
2. How much do workers earn?
3. What is the average turnover rate?
4. What are retention rates?
5. What are earnings trends?

# Templates for Wibs

## Identifying Hidden High Growth Industries

- 1. Which industries are the most important?**
- 2. Which industries hire the most workers?**
- 3. Which industries pay the most?**
- 4. Which are the “hot” industries**
  1. New hire earnings
  2. Growth in hiring
  3. Growth in employment
  4. Job creation rates

# What are top ten industries in NM?

Industry	Employment	Industry	Hires
Eating/Drinking	48,879	Eating/Drinking	7841
Department Stores	20,934	Department Stores	1935
Grocery Stores	16,576	Hotels/Motels	1935
General Hospitals	14,436	Grocery Stores	1766
Hotels/Motels	14,292	Help Supply	1760
Commercial Physical/Bio Research	13,096	Doctors' Offices	1079
Doctors' Offices	12,184	Ind/Fam Soc. Ser.	1020
Semiconductors	9,224	Farm Labor	965
Ind/Fam Soc. Ser.	9,065	Gen. Bus. Ser	910
Help Supply	9,012	General Contractors	886

# What are top ten industries in NM for 35-44 year old women?

Industry	Employment	Industry	Hires
Eating/Drinking	4,609	Eating/Drinking	606
General Hospitals	3,270	Dept. Stores	300
Dept. Stores	3,037	Doctors' Offices	253
Doctors' Offices	2,635	Hotels/Motels	250
Grocery Stores	2,591	Grocery Stores	209
Hotels/Motels	2,164	Help Supply	201
Ind/Fam Soc. Ser	1,789	Ind/Fam Soc. Ser	191
Natl. Comm. Banks	1,192	Home Health Care	145
Comm. Phys/Bio Research	1,147	General Hospitals	138
Legal Services	1,074	Residential Care	125

## What are the earnings in the top ten industries in NM for 35-44 year old women?

Industry	Incumbent Earnings	Industry	New Hire Earnings
Eating/Drinking	\$1,217	Eating/Drinking	\$910
General Hospitals	\$2,809	Dept. Stores	\$1,439
Dept. Stores	\$1,701	Doctors' Offices	\$2,080
Doctors' Offices	\$2,734	Hotels/Motels	\$945
Grocery Stores	\$1,709	Grocery Stores	\$923
Hotels/Motels	\$1,334	Help Supply	\$1,486
Ind/Fam Soc. Ser	\$1,430	Ind/Fam Soc. Ser	\$1,245
Natl. Comm. Banks	\$2,407	Home Health Care	\$1,278
Comm. Phys/Bio Research	\$5,698	General Hospitals	\$2,284
Legal Services	\$2,811	Residential Care	\$1,400

# Develop Mapping Capability

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# Mapping Capability Aims: Answer Questions

## Where are particular industries located?

## Where are the high wage employment areas?

- What industries are located in the high wage employment areas?
- Where do the workers who work in high wage areas live?

## Where are the high growth employment areas?

- What industries are located in the high growth employment areas?
- Where do workers who work in high growth areas live?

## Where do groups of workers live?

- What are their characteristics?

# LED Worker Origin-Destination Database Attributes

## Table matrix characteristics:

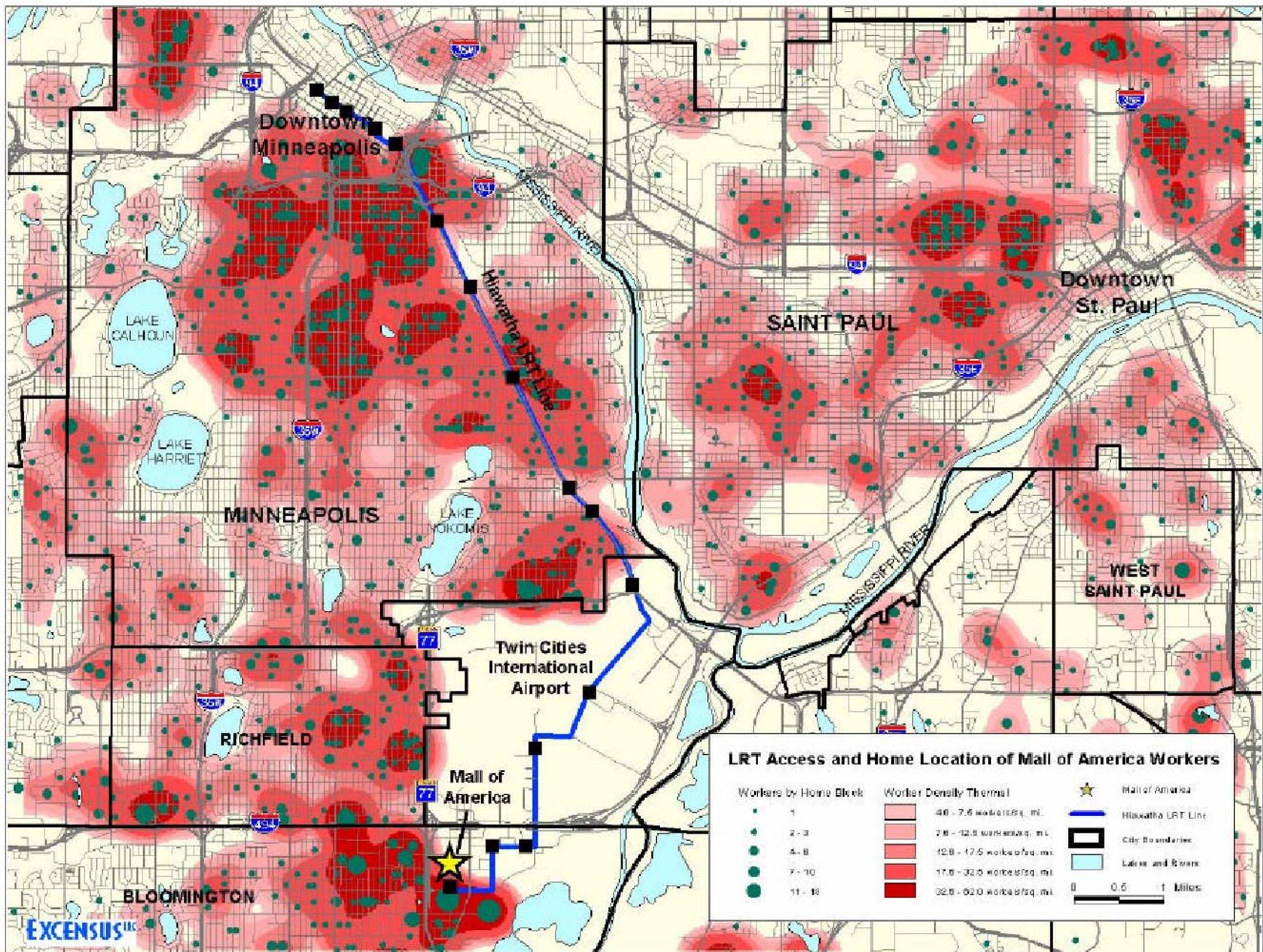
- Count of workers traveling between two census blocks

## Home-block-group characteristics:

- Industries for which residents work (at the 2-digit NAICS code level)
- Proportion (or number) of workers by earnings ranges
- Proportion (or number) of workers by age ranges

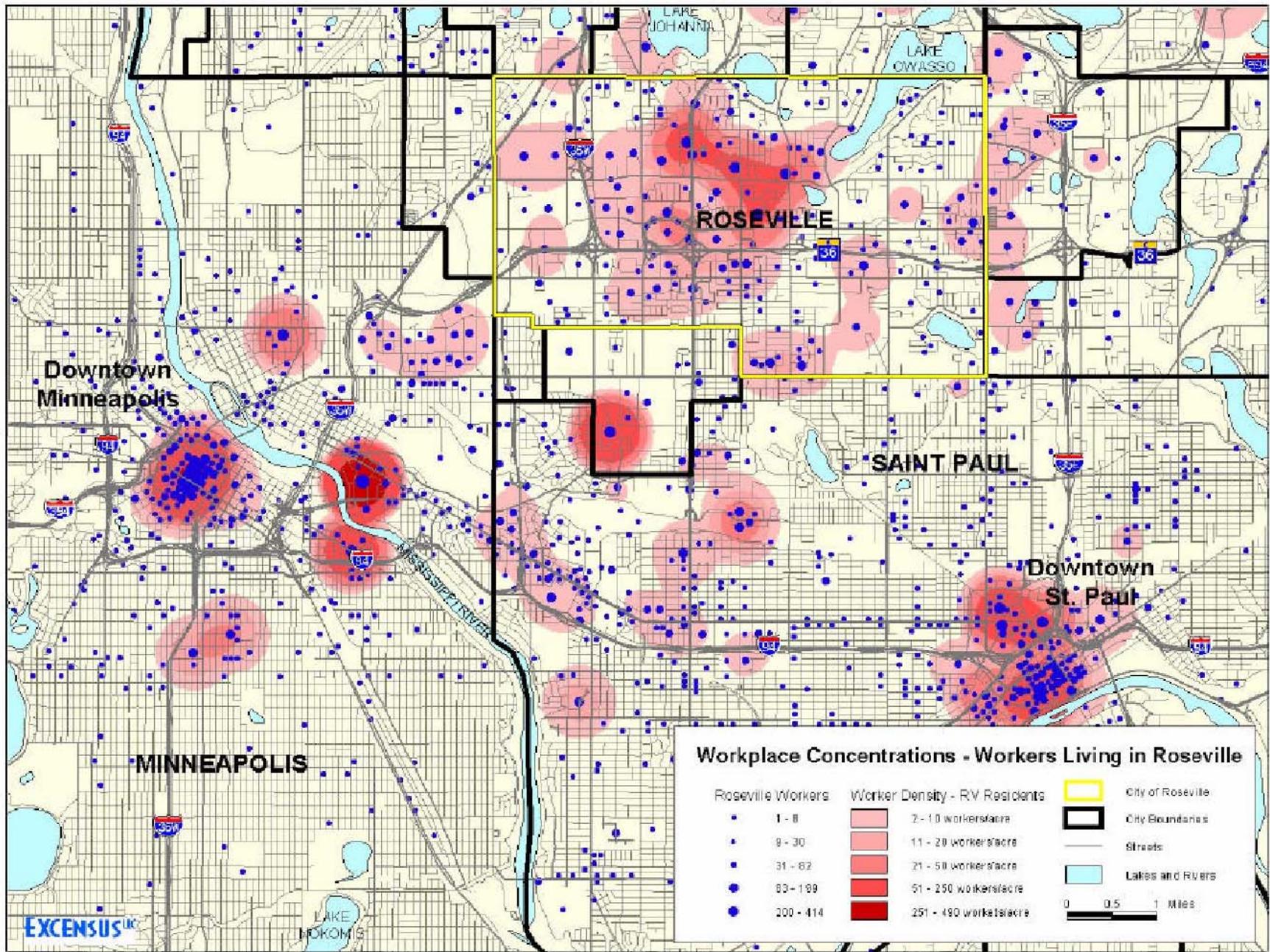
## Work-block-group characteristics:

- Industries represented (at the 2-digit NAICS code level)
- Proportion (or number) of workers by earnings range
- Proportion (or number) of workers by age range
- Measures of high demand and high growth such as
  - Job gain and loss
  - Hires and Separations
  - Earnings of Hires, and
  - Earnings of Separations
- Number of establishments



Map dated September 30, 2003

Source: US Census Bureau, LEHD Minnesota Worker Origin/Destination Data (2001)



Map dated September 30, 2003

Source: US Census Bureau, LEHD Minnesota Worker Origin/Destination Data (2001)

# Proposed Approach

## Full Featured Map Base

↖ Geographic boundary layers

↖ Pan and zoom features

## Dynamic Travel Shed Mapping

↖ Labor sheds and commute sheds

## Custom Area Selection and Profiling

↖ Drawing tool to define area

↖ Application of criteria from Census or LED to identify e.g.

- employment areas based on presence of workers in a selected industry
- group or workers who live in a particular neighborhoods where average annual earnings are in a particular range (using LED data) or
- a certain percentage of residents have less than a high school diploma (using Census 2000 data).

# Proposed Approach

## Advanced Travel Shed Profiling

individual travel sheds, created by the user based on selected map features, can in turn be used to produce labor market profiles revealing the interdependent relationships between employers and the geographic neighborhoods where they draw their employees

## Tracking of Travel Shed Changes

Changing nature of labor market (between two dates)

## Data Reporting and Downloading

- Data profiles can be generated for any selected area (standard or custom defined) and for any travel shed produced from selected areas.
- Users can produce a report using a standard template or choose from a list of database variables to construct a custom report.
- In addition, reports can be generated that contain both the data profiles and a map showing the selected areas.
- These reports can be viewed online, sent to a local printer, or downloaded in Microsoft Excel (for tabular data) or PDF format for use in documents.

# What do states receive?

**LMI offices and their customers will receive the following:**

**Online access to a jointly developed mapping system with functionality detailed above**

**An Origin-Destination matrix at the block level for their state**

**Workplace and place of residence characteristics at either the block group or tract level for their state**

# What are state LMI shops asked to do?

**Work with state and local agencies to evaluate the usability of the application for decision-making and provide frequent written and verbal feedback on ways to improve the product.**

**Work with transportation planners to provide input that improves the quality of the input ES202 (QCEW) data file – particularly to**

- Improve the physical addresses of establishments
- Provide breakouts of multi-unit businesses that file as single units

**Develop an implementation, marketing and dissemination plan so that the final product is made available to as many users as possible.**

**Leverage interest in the product with as many state agencies as possible – particularly economic development agencies, chambers of commerce, employer groups, and educational institutions such as community colleges**

# Timeline

**LED and ETA have selected 12 states**

**LED has established listserv and schedule for conference calls to provide input on the development of the mapping application.**

**Excensus LLC, the application developer for this project, will provide regular updates as development proceeds in the Minnesota test area (see below).**

**LED and ETA will host a meeting of partner states and WIBs in November as a working group to provide onsite input.**

**Test versions of the application will be implemented in One Stop locations or another state agency in Minnesota beginning in December.**

**December 30 – Origin-Destination matrices for 10 states produced.**

**December 30 – workplace and residence characteristics produced for MN.**

**January LED state workshop presentations.**

**March 2-3 National Association of Workforce Boards presentation.**

**March, 2005 through September, 2005 – Final edits and application rollout and training to state participants.**

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# Next steps

**Expansion of program**

**Training**

**LMI shops**

**WIBs**

**Expansion of indicators**

**Cross-state; cross county**

**Multiple Job Holding**

**Expansion of templates (MEETS)**

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