Indiana's On the Map: New Way to Access Labor Force Data

Indiana is now among the states whose data is accessible through OnTheMap version 2.2, a Web-based mapping application from the U.S. Census Bureau's Local Employment Dynamics program. OnTheMap is a powerful tool with many uses. Users can zoom in to get neighborhood data not available elsewhere or zoom out to regional labor markets that cross state boundaries.

This application, available at http://lehdmap2.did.census.gov/themap/, uses a standard Internet browser, but a high-speed connection is a must due to the large amount of data being processed. The data are useful (even if they seem a little old—2004 is the most current available), but because the interface is a little less than intuitive, some may overlook beneficial features. This article is somewhat of a mini-tutorial so you can get a jumpstart using this helpful tool.

Overlay Options

The first page of the website allows you to focus in on a basic geographic area. Once you're in the map interface, there are three ways to get data. Access these options by clicking the "Create/Change Overlay" button (see **Figure 1**).

- **Create Travel Sheds:** Depending on if commute shed or labor shed is chosen, this profiles either residents who live in a selected location (e.g., where do people who live in Marion County work?) or workers employed within a selected location (e.g., where do people who work in the downtown Indianapolis 46204 ZIP Code live?).
- **Create Paired Area:** This option analyzes a single home and workplace pair (e.g., how many Lawrence county residents commute to the city of Bloomington?).
- **Analyze Concentric Rings:** Depending on if commute shed or labor shed is chosen, this creates profiles of residents or workers within three rings around a selected point using a user-defined radius (e.g., how do workers who live within two miles of the center of East Chicago differ from those who live within 5 miles or 10 miles?)

Selection Options

After you've selected an overlay, the next dialog box will ask you to define the selection area (among other things). Even though we're only going to look at layer selections in this article, the following four selection options are available, so users aren't necessarily limited to analyzing data for predefined geographies (see **Figure 2**).

- **Freehand Selection:** Draw a freehand polygon on the map
- **Layer Selection:** Choose a layer type (such as counties, cities, townships or ZIP code tabulation areas) and then select a specific geographic unit on the map by dragging your mouse across it. *Tip: you need to drag your mouse across at least a portion of the geographic unit you want to select. Just clicking on it will not work.
- **Buffered Selection:** Builds a buffer *around a line* you draw on the map (you specify the radius for the buffer in miles).
- **Circle Selection:** Selects an area (using a radius you specify) *around a point* you select on the map

FIGURE 1: OVERLAY OPTIONS
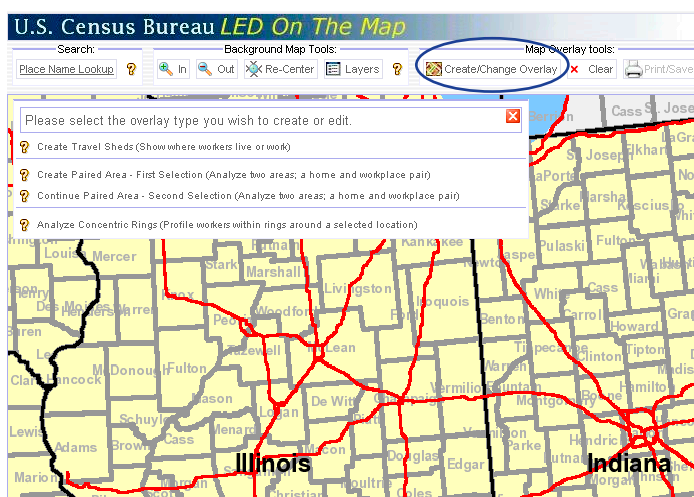
Source: U.S. Census Bureau, using LED Origin-Destination Database

FIGURE 2: SELECTION OPTIONS
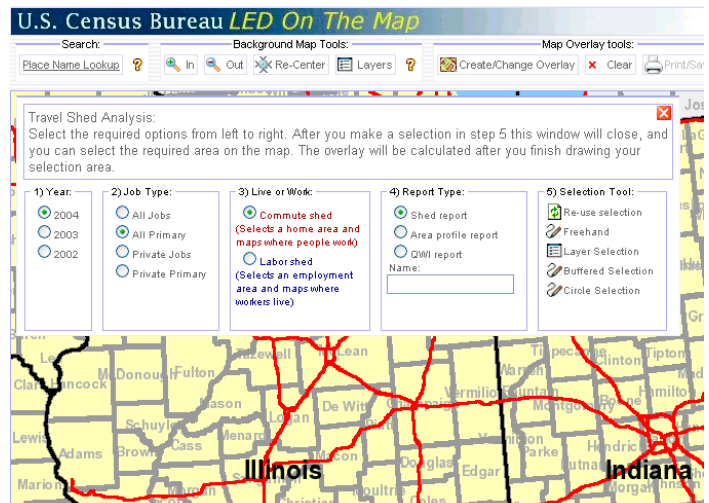
Source: U.S. Census Bureau, using LED Origin-Destination Database

One of the improvements in this version of OnTheMap is that census blocks are used to define the selection area—excluding the freehand selection, which will continue to be defined at the block-group level.

Report Options

The same dialog box that asks you to define a selection area also wants you to specify a report type. The tables in this article provide the actual output from OnTheMap for various queries so you know what is available.

If you selected the travel shed overlay, you may choose between three different report options:

1. **Shed Report:** If labor shed is selected, this report indicates where workers who are employed in the selected area live. As shown in **Table 1**, more than 60 percent of people who worked in the downtown Indianapolis ZIP code 46204 in 2002 lived in Marion County, but that number dropped to 55 percent by 2004. If commute shed is selected, the report indicates where residents who live in the selected area are employed.

2. **Area Profile Report:** This report provides the characteristics of employed workers in the selected area. **Figure 3** shows the map output for the Anderson and Fall Creek townships in Madison County. **Table 2** provides the results of the associated area profile report, where we see that the percentage of residents employed in manufacturing dropped 2.5 percentage points between 2002 and 2004.

3. **QWI Report:** This report provides 10 of the key quarterly workforce indicators. **Table 3** shows these indicators for the census tract

TABLE 1: Labor Shed Report—Where Workers Employed in the 46204 ZIP Code Live

Area Employment by Category	2004:2		2003:2		2002:2	
	Count	Share	Count	Share	Count	Share
Total Employers:	1,495		1,487		1,535	
All Jobs	69,546	100.0%	66,799	100.0%	65,823	100.0%
All Jobs (Private Sector Only)	50,690	72.9%	49,453	74.0%	49,315	74.9%
All Primary Jobs (Worker's highest paying job)	65,519	94.2%	62,662	93.8%	62,191	94.5%
All Primary Jobs (Private Sector Only)	46,835	67.3%	45,621	68.3%	45,949	69.8%
Baseline Count of Jobs						
All Primary Jobs	65,519	100.0%	62,662	100.0%	62,191	100.0%
Cities/Towns Where Workers Live*						
Indianapolis city (balance)	33,066	50.5%	35,764	57.1%	34,876	56.1%
Lawrence	1,576	2.4%	1,625	2.6%	1,569	2.5%
Carmel	1,473	2.2%	1,428	2.3%	1,288	2.1%
Fishers	1,470	2.2%	1,594	2.5%	1,501	2.4%
Greenwood	1,367	2.1%	1,224	2.0%	1,238	2.0%
Beech Grove	624	1.0%	615	1.0%	642	1.0%
Fort Wayne	541	0.8%	427	0.7%	366	0.6%
Speedway	533	0.8%	544	0.9%	562	0.9%
Plainfield	530	0.8%	460	0.7%	445	0.7%
Noblesville	521	0.8%	529	0.8%	468	0.8%
All Other Locations	23,818	36.4%	18,452	29.4%	19,236	29.4%
Counties Where Workers Live*						
Marion	36,289	55.4%	39,064	62.3%	38,128	61.3%
Hamilton	4,637	7.1%	4,678	7.5%	4,443	7.1%
Johnson	3,555	5.4%	3,115	5.0%	3,017	4.9%
Hendricks	2,630	4.0%	2,425	3.9%	2,439	3.9%
Morgan	1,236	1.9%	1,044	1.7%	1,131	1.8%
Hancock	1,096	1.7%	1,131	1.8%	1,134	1.8%
Lake	953	1.5%	714	1.1%	786	1.3%
Boone	899	1.4%	778	1.2%	739	1.2%
Allen	836	1.3%	677	1.1%	585	0.9%
Kosciusko	733	1.1%	683	1.1%	673	1.1%
All Other Locations	12,655	19.3%	8,353	13.3%	9,116	14.7%
States Where Workers Live						
Indiana	63,742	97.3%	61,253	97.8%	60,803	97.8%
Illinois	321	0.5%	260	0.4%	262	0.4%
California	286	0.4%	159	0.3%	151	0.2%
All Other Locations	1,170	1.8%	990	1.6%	975	1.6%

*All in Indiana unless otherwise noted
Source: U.S. Census Bureau, using LED Origin-Destination Database

FIGURE 3: Commute Shed: Where Residents of Anderson/Fall Creek Townships Are Employed
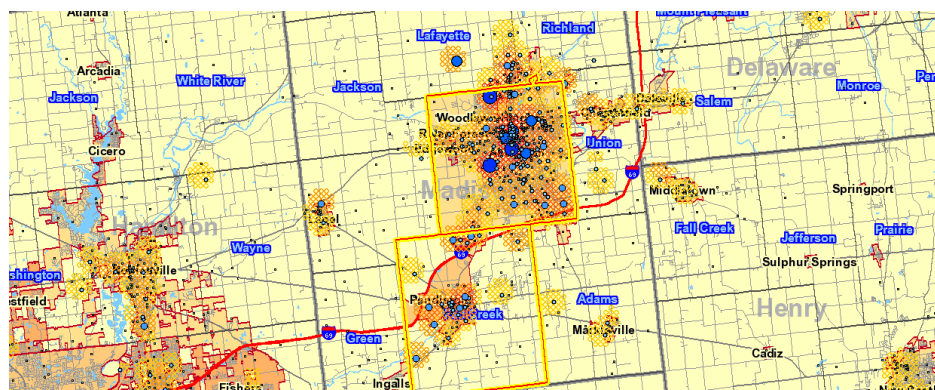
Source: U.S. Census Bureau, using LED Origin-Destination Database

that will be home to the much-anticipated Honda plant in Greensburg.

If you selected either the paired area or concentric rings, the following reports are available:

4. **Paired Area Report**: If labor shed is selected, this report provides the number of workers that are employed in selection area #1 and live in area #2, as shown in **Table 4**. If commute shed is selected, it provides information on workers that reside in selection area #1 and work in area #2.

5. **Concentric Circle Report:** If labor shed is selected, this report provides information about people who work in each radius. If commute shed is selected, it provides employment information about those who reside in each radius, as shown for East Chicago in **Table 5**.

Viewing the Results

After creating an overlay, all you will see on the map is the selection itself, which is a little unnerving because you think it didn't work. However, to see the distribution of the labor force or workforce, you can choose to display points, thermals or both underneath "Display Option."

TABLE 2: SELECTION AREA PROFILE—CHARACTERISTICS OF RESIDENT WORKERS IN ANDERSON AND FALL CREEK TOWNSHIPS (MADISON COUNTY)

Resident Held Jobs by Category	2004:2		2003:2		2002:2	
	Count	Share	Count	Share	Count	Share
All Jobs	30,452	100.0%	29,799	100.0%	30,678	100.0%
All Jobs (Private Sector Only)	26,265	86.3%	25,604	85.9%	26,636	86.8%
All Primary Jobs (Worker's highest paying job)	28,496	93.6%	27,856	93.5%	28,724	93.6%
All Primary Jobs (Private Sector Only)	24,546	80.6%	23,919	80.3%	24,874	81.1%
Baseline Count of Workers						
All Primary Jobs	28,496	100.0%	27,856	100.0%	28,724	100.0%
Workers by Age						
Age 30 or younger	8,283	29.1%	8,116	29.1%	8,462	29.5%
Age 31 to 54	12,568	44.1%	12,525	45.0%	13,093	45.6%
Age 55 or older	7,645	26.8%	7,215	25.9%	7,169	25.0%
Workers by Earnings Paid						
$1,200 per month or less	7,216	25.3%	7,244	26.0%	7,415	25.8%
$1,201 to $3,400 per month	17,009	59.7%	16,461	59.1%	17,080	59.5%
More then $3,400 per month	4,271	15.0%	4,151	14.9%	4,229	14.7%
Workers by Industry Type (2-digit NAICS)						
Agriculture, Forestry, Fishing and Hunting	80	0.3%	96	0.3%	83	0.3%
Mining	25	0.1%	16	0.1%	22	0.1%
Utilities	41	0.1%	32	0.1%	25	0.1%
Construction	1,373	4.8%	1,230	4.4%	1,234	4.3%
Manufacturing	4,705	16.5%	5,043	18.1%	5,456	19.0%
Wholesale Trade	1,179	4.1%	1,114	4.0%	1,166	4.1%
Retail Trade	3,560	12.5%	3,458	12.4%	3,790	13.2%
Transportation and Warehousing	947	3.3%	920	3.3%	896	3.1%
Information	502	1.8%	520	1.9%	526	1.8%
Finance and Insurance	1,268	4.4%	1,281	4.6%	1,221	4.3%
Real Estate, Rental and Leasing	372	1.3%	397	1.4%	346	1.2%
Professional, Scientific and Technical Services	906	3.2%	835	3.0%	959	3.3%
Management of Companies and Enterprises	233	0.8%	252	0.9%	232	0.8%
Administrative, Support and Waste Management	1,496	5.2%	1,430	5.1%	1,519	5.3%
Educational Services	1,917	6.7%	1,905	6.8%	1,830	6.4%
Health Care and Social Assistance	3,977	14.0%	3,630	13.0%	3,490	12.2%
Arts, Entertainment and Recreation	372	1.3%	383	1.4%	370	1.3%
Accommodation and Food Services	2,647	9.3%	2,561	9.2%	2,704	9.4%
Other Services (excluding Public Administration)	811	2.8%	706	2.5%	832	2.9%
Public Administration	2,085	7.3%	2,047	7.3%	2,023	7.0%

Source: U.S. Census Bureau, using LED Origin-Destination Database

TABLE 3: QUARTERLY WORKFORCE INDICATORS (QWI) PROFILE— CENSUS TRACT 18031969200 (WEST OF GREENSBURG)

QWI Indicators—Private Sector Jobs	2004:2	2003:2	2002:2
Employment (Beginning-of-2nd quarter)	3,694	3,600	3,560
Employment, Stable Jobs	3,370	3,260	3,224
Separations, Stable Jobs	202	225	218
New Hires, Stable Jobs	254	185	212
Firm Job Gain	181	118	89
Firm Job Loss	64	94	115
Employment (reference quarter)	4,357	4,150	4,046
Average Monthly Earnings, Stable Jobs	$3,041	$2,877	$3,038
Average Monthly Earnings Separations from Stable Jobs	$1,063	$1,107	$993
Average Monthly Earnings, New Hires, Stable Jobs	$1,513	$1,553	$1,862

Note: Data are for the second quarter of each year
Source: U.S. Census Bureau, using LED Origin-Destination Database

TABLE 4: PAIRED AREA REPORT—CHARACTERISTICS OF WORKERS THAT RESIDE IN LAWRENCE COUNTY AND COMMUTE TO THE CITY OF BLOOMINGTON IN NEIGHBORING MONROE COUNTY

Workers Residing in Lawrence County	2004:2	
	Count	Share
All Jobs	17,884	100%
All Jobs (Private Sector Only)	14,853	100%
All Primary Jobs (Worker's highest paying job)	16,834	100%
All Primary Jobs (Private Sector Only)	14,012	100%
Residents of Lawrence County Working in the City of Bloomington		
All Jobs	2,330	13%
All Jobs (Private Sector Only)	2,002	13.5%
All Primary Jobs (Worker's highest paying job)	2,203	13.1%
All Primary Jobs (Private Sector Only)	1,891	13.5%

Note: Data are for the second quarter of each year
Source: U.S. Census Bureau, using LED Origin-Destination Database

Digital Connections

TABLE 5: CONCENTRIC RING REPORT—2004 RESIDENT WORKFORCE PROFILE FOR EAST CHICAGO (COMMUTE SHED)

Resident Held Jobs by Category	10 Mi. Radius		5 Mi. Radius		2 Mi. Radius	
	Count	Share	Count	Share	Count	Share
All Jobs	247,500	100.0%	75,900	100.0%	13,745	100.0%
All Jobs (Private Sector Only)	205,232	82.9%	63,541	83.7%	11,598	84.4%
All Primary Jobs (Worker's highest paying job)	229,150	92.6%	70,767	93.2%	12,825	93.3%
All Primary Jobs (Private Sector Only)	189,532	76.6%	59,195	78.0%	10,828	78.8%
Baseline Count of workers						
All Primary Jobs	229,150	100.0%	70,767	100.0%	12,825	100.0%
Workers by Age						
Age 30 or younger	62,672	27.3%	20,785	29.4%	4,610	35.9%
Age 31 to 54	119,693	52.2%	35,098	49.6%	5,728	44.7%
Age 55 or older	46,785	20.4%	14,884	21.0%	2,487	19.4%
Workers by Earnings Paid						
$1,200 per month or less	60,773	26.5%	18,392	26.0%	3,798	29.6%
$1,201 to $3,400 per month	113,103	49.4%	35,654	50.4%	7,071	55.1%
More then $3,400 per month	55,274	24.1%	16,721	23.6%	1,956	15.3%
Workers by Industry Type (2-digit NAICS)						
Agriculture, Forestry, Fishing and Hunting	140	0.1%	52	0.1%	14	0.1%
Mining	207	0.1%	75	0.1%	24	0.2%
Utilities	1,381	0.6%	530	0.7%	75	0.6%
Construction	8,694	3.8%	3,155	4.5%	472	3.7%
Manufacturing	25,972	11.3%	9,357	13.2%	2,051	16.0%
Wholesale Trade	8,419	3.7%	2,912	4.1%	522	4.1%
Retail Trade	25,441	11.1%	8,542	12.1%	1,775	13.8%
Transportation and Warehousing	12,453	5.4%	3,195	4.5%	404	3.2%
Information	4,641	2.0%	1,278	1.8%	153	1.2%
Finance and Insurance	10,985	4.8%	3,084	4.4%	286	2.2%
Real Estate and Rental and Leasing	3,863	1.7%	1,115	1.6%	196	1.5%
Professional, Scientific and Technical Services	8,355	3.6%	2,391	3.4%	283	2.2%
Management of Companies and Enterprises	1,922	0.8%	481	0.7%	55	0.4%
Administrative, Support and Waste Management	14,965	6.5%	4,063	5.7%	886	6.9%
Educational Services	24,129	10.5%	6,577	9.3%	993	7.7%
Health Care and Social Assistance	34,071	14.9%	9,228	13.0%	1,536	12.0%
Arts, Entertainment, and Recreation	4,723	2.1%	1,932	2.7%	473	3.7%
Accommodation and Food Services	16,513	7.2%	5,298	7.5%	1,202	9.4%
Other Services (excluding Public Administration)	7,755	3.4%	2,429	3.4%	469	3.7%
Public Administration	14,521	6.3%	5,073	7.2%	956	7.5%

Note: Data are for the second quarter
Source: U.S. Census Bureau, using LED Origin-Destination Database

Point size is based on concentration of workers, while thermals show density using a workers per square mile calculation. The number of workers/jobs in each quarter-mile grid cell is averaged with the numbers from the eight adjacent cells and then converted to workers per square mile. The colors chosen for the thermal overlay make it a little difficult to see what is going on, so it is useful to use that layer in conjunction with the points layer by selecting the "Both" option. To see the actual legend breaks for a specific map, click the square next to "overlay key" in the legend in the lower left corner.

While the map gives a decent visual of commute and labor sheds, the real meat of this application is in the aforementioned reports, which will open up in a new window if you select the "Reports" option.

While a bit slow and a little clunky at first, OnTheMap may prove to be an indispensable resource for data you can't easily get anywhere else.

—Rachel Justis, Managing Editor, Indiana Business Research Center, Kelley School of Business, Indiana University