

# OnTheMap

## Sample Distance/Direction Analysis

Local Employment Dynamics

### From what distances and directions do Albany workers\* commute?

\* Represented as primary jobs covered under the state unemployment insurance system.

#### Analysis Steps

1. Go to the Quick Links section at <http://lehd.ces.census.gov> and choose **OnTheMap**.
2. Enter **Albany** in the Search text box of the Start tab and click **Search**.
3. Select **Albany city, NY** by clicking on the name under the Places (Cities, CDPs, etc.) heading.
4. After the map of Albany appears, click **Perform Analysis on Selection Area** in the Selection Popup Window.

**Analysis Settings**

Distance/Direction Analysis in 2009 by Primary Jobs

**Home/Work Area**  
Determines whether the selection area is analyzed on where workers live ("Home") or where workers are employed ("Work").  
 Home  
 Work

**Analysis Type**  
Determines the type of results that will be generated for the selected area.  
 Area Profile  
Labor Market Segment: All Workers  
 Area Comparison  
Areas to Compare: Places (Cities, CDPs, etc.)  
Labor Market Segment: All Workers  
 Distance/Direction  
 Destination  
Destination Type: Places (Cities, CDPs, etc.)  
 Inflow/Outflow  
Note: Home/Work choice does not affect results

**Year**  
Determines the year(s) of data that will be processed in the analysis.  
 2010  
 2009  
 2008  
 2007  
 2006  
 2005  
 2004  
 2003  
 2002

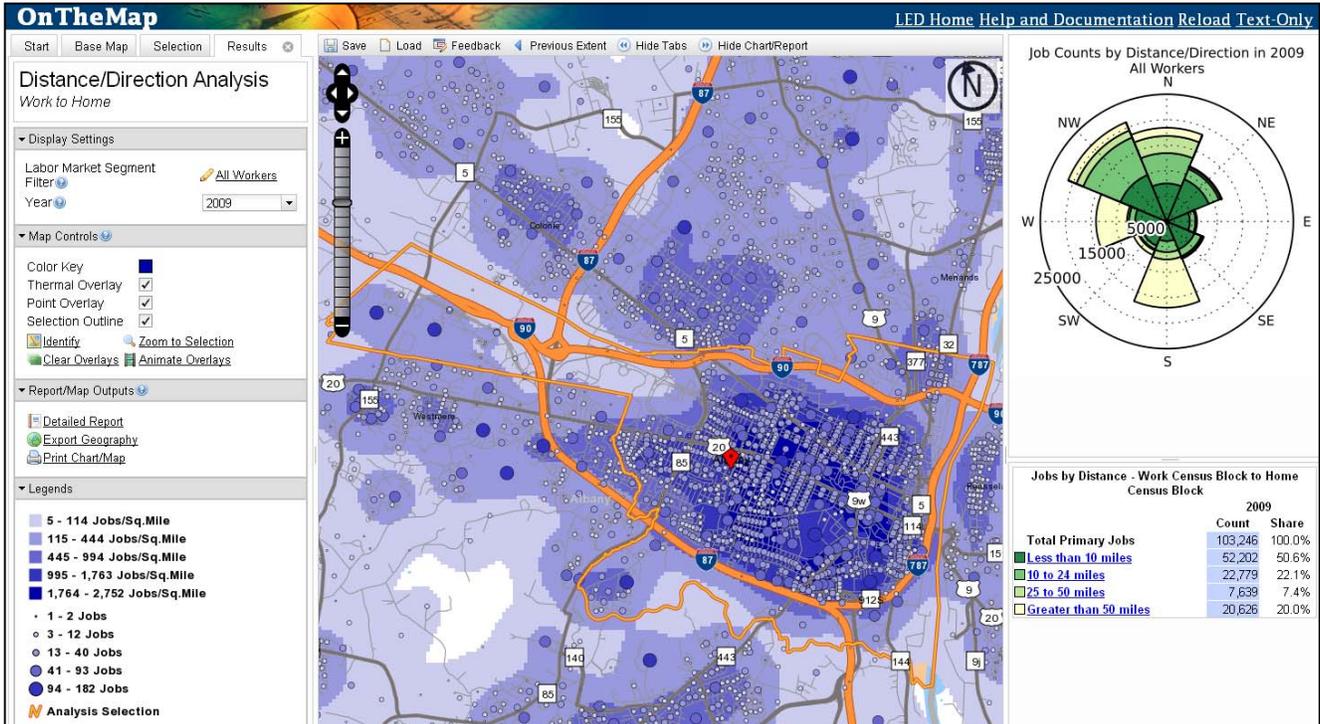
**Job Type**  
Determines the scope of jobs that will be processed in the analysis.  
 All Jobs  
 Primary Jobs  
 All Private Jobs  
 Private Primary Jobs

Cancel Go!

5. In the Analysis Settings popup (shown above), select **Distance/Direction** as the Analysis Type. Keep the defaults for the Home/Work Area, Year, and Job Type options (Note: At the time of writing, 2009 was the default year). Click **Go!** at the bottom right corner of the popup window to generate the analysis.

## Results

1. When the application finishes processing, overlays of points, thermals, and a selection outline will appear on top of the base map in the map viewer. The Results tab will become active in the control panel, containing Display Settings, Map Controls, Report/Map Outputs, Legends, and Analysis Settings sections. To the right of the map viewer is radar chart and summary report.



2. In the map above, residential patterns of workers employed in Albany, NY in 2009 are represented by the blue thermal density overlay showing jobs per square mile. Resident locations are also aggregated into census blocks in the Points Overlay – each block represented by one blue dot. A blue dot will not appear for census blocks if no workers employed in Albany reside there. Refer to the Legends section in the Results tab to see the count of Albany workers living in each block for the selected year.

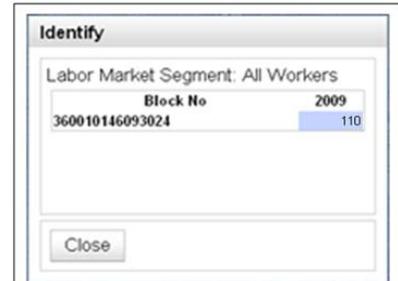
3. The summary report at the bottom of the panel on the right contains the count of workers employed in Albany, followed by job counts broken out by four distance categories. The chart above the report presents the four distance categories on a compass rose, displaying the relative distance **and** direction Albany workers commute from.

### Examining the Map, Chart, and Report

1. The title at the top of the Results tab reads “Distance/Direction Analysis – Work to Home,” which means the analysis highlights the movement of workers from their workplaces (in the selection area - Albany, NY) to their homeplaces (symbolized by the Points and Thermals in the map viewer). Alternatively, if Albany would have been selected as a home

area in the Analysis Settings popup, the Distance/Direction results would be “Home to Work,” illustrating the movement of workers from their homeplaces in Albany to wherever their workplaces may be.

2. The two dropdowns in the Display Settings section of the Results tab, Labor Market Segment and Year, offer the ability to change the data shown in each component of the Results tab. Using the Labor Market Segment Filter dropdown menu, click **All Workers** and select **Worker Age**, then arrow over to **Age: 29 or younger**. The map overlays, radar chart, and summary report update to display the commute distance and direction of Albany's young workers. In addition to age segments, the Labor Market Segment Filter dropdown includes options for earnings and industry groups. To view other years of data, simply select the desired year from the Year dropdown. Turn the segment filter back to **All Workers**.



*The Identify tool (in the Map Controls section of the Results tab) provides an exact count of jobs living in each block. The 15-character Census Block identifier and the count of jobs will pop up for each year of data. The Identify button must be clicked each time before identifying a new block.*

3. The Map Controls section of the Results tab contains a variety of tools for changing the overlay colors, turning overlays on/off, identifying individual points in the Points Overlay, clearing all overlays, and overlay animation (if more than one year of data is processed). Click **Identify**, then immediately click a blue dot in the map viewer to see the specific count of workers living in that census block. The Identify popup example to the right shows that 110 workers live in block 360010146093024 and work in Albany as of 2009.

4. At the current zoom level only a small portion of Albany's “commute shed” is visible. Click the minus symbol at the bottom of the Scale Ladder tool (top left corner of the map viewer) several times to zoom out to a regional level. Click the **Points Overlay** checkbox in the Map Controls section to remove the point overlay. The density of worker residences is symbolized by the varying darkness of the thermal overlay. As you can see, residences are concentrated primarily within the city of Albany, but also grouped around the nearby cities of Schenectady and Troy.

5. The distance and direction information shown in the panel on the right are calculated between every home/work census block pair involved in the analysis. The green and yellow colored boxes next to the four distance categories in the summary report serve as the legend for the radar chart. Home and Work blocks that are close to each other (i.e. Less than 10 miles) are the darkest shade of green, and occupy the most central section of the radar chart. The other distance break totals stack on top of each other with the longest commutes stacked as the outmost ring. As shown in the

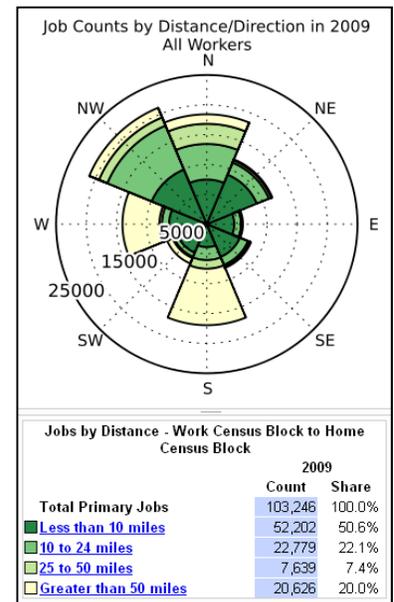


chart to the right, a significant number of workers commute from all distances from the northwest and north. Additionally, a majority of commutes from the south are coming from over 50 miles away, most likely from the New York City area.

6. Each distance group in the summary report can be clicked in order to filter the analysis results to show only those jobs with home/work census block pairs falling within the selected distance range. Click **10 to 24 miles** to remove jobs outside of that distance range from the map overlays, chart, and report. Click **Total Primary Jobs** to remove the distance filter.

7. In the Results tab on the left, the Report/Map Outputs section contains three options for exporting the analysis results to a variety of formats. Click **Detailed Report** to display the full report results for the analysis. The Detailed Report (shown below) provides nine sections of data – a section displaying the four distance breaks regardless of the direction, and a section showing the four distance breaks for each of the eight cardinal directions (North, Northeast, East, Southeast, South, Southwest, West, and Northwest). Adding the eight direction totals will equal the total at the top of the report. The Detailed Report also includes data for every year selected in the Analysis Settings popup. Export this report to PDF, Excel (XLS), or HTML by clicking one of the links at the top of the window. Click **Close** to exit out the Detailed Report view.

**Detailed Report View**

[Export to PDF](#)   [Export to XLS](#)   [Export to HTML](#)

Distance/Direction Report - Work Census Block to Home Census Block

**Job Counts in Home Blocks by Distance Only**

	2009	
	Count	Share
<b>Total Primary Jobs</b>	103,246	100.0%
Less than 10 miles	52,202	50.6%
10 to 24 miles	22,779	22.1%
25 to 50 miles	7,639	7.4%
Greater than 50 miles	20,626	20.0%

**Job Counts in Home Blocks to the North of Work Blocks by Distance**

	2009	
	Count	Share
<b>Total Primary Jobs</b>	18,407	100.0%
Less than 10 miles	7,479	40.6%
10 to 24 miles	5,962	32.4%
25 to 50 miles	3,368	18.3%
Greater than 50 miles	1,598	8.7%

**Job Counts in Home Blocks to the North East of Work Blocks by Distance**

	2009	
	Count	Share
<b>Total Primary Jobs</b>	11,752	100.0%
Less than 10 miles	8,985	76.5%
10 to 24 miles	2,178	18.5%
25 to 50 miles	402	3.4%

8. The Report/Map Outputs section of the Results tab contains two more export options. The map overlays (including the selection area) can be exported to KML, Shapefile, or CSV (census blocks in the Selection Area) file by clicking **Export Geography**. Additionally, the map overlays and chart can be saved as a composite PDF or as a collection of high-quality PNG images by clicking the **Print Chart/Map** button at the bottom of the section.

### **Further Analysis**

1. The analysis results often prompt further labor force questions. OnTheMap is designed to allow users to quickly revise and resubmit a new analysis. Click **Change Settings** to return to the Analysis Settings popup. Change the Analysis Type to view other types of information on Albany's workers, and/or change the Home/Work parameter to view information on where Albany's residents are working. A complete list of sample walkthroughs for each analysis type is available [here](#).
2. Alternatively, resubmit a new analysis by clicking the Start tab and searching for a new area or clicking the Selection tab to change the selection area using the available selection tools. For more information on using the Selection tab, click [here](#).