# OnTheMap

Sample Paired Area Analysis

Local Employment Dynamics

# How many workers\* employed in Minneapolis, MN live in St. Paul, MN? What are the characteristics of these workers?

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

## <u>Analysis Steps</u>

1. From the list of applications on <u>lehd.ces.census.gov</u>, choose **OnTheMap** (or go directly to <u>onthemap.ces.census.gov</u>).

2. Enter Minneapolis in the Search text box of the Start tab and click Search.

3. Select **Minneapolis city**, **MN** by clicking on the name under the Places (Cities, CDPs, etc.) heading.

4. After the map of Minneapolis appears, click **Add Advanced Selection** at the bottom of the Selection Area popup to activate the Advanced tab in the Control Panel. Use the mouse to pan the map viewer to the east until the city of St. Paul is visible.

5. Click **Draw Point(s)** in the Drawing Tools section of the Advanced tab, then click once with your mouse inside the boundary of St. Paul to drop a pink point in the map viewer. In the Add Layer Selection dropdown, select **Places (Cities, CDPs, etc.)** from the list, and click **Confirm Advanced Selection.** 





6. When the Advanced Selection Area popup appears, click **Perform Paired Area Analysis** to display the Paired Analysis Settings popup.

Analysis Settings			
Paired Area Analysis in 202 Home/Work Area Determines which of the selected areas is where workers are employed ("Work") and which is where workers live ("Home"). Click Swap to switch the Home/Work assignment. Work Swap home First Advanced Selection Selection	1 by Private Primary Jobs Analysis Type	Year ⊕ Content   Determines the year(s) of data that will be processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the processed in the analysis. Image: Content of the processed in the analysis.   Image: Content of the processed in the analysis. Image: Content of the processed in the procesed in the processed in the processed in the	Job Type () Determines the scope of jobs that will be processed in the analysis. All Jobs Primary Jobs All Private Jobs Private Primary Jobs

7. In the Paired Analysis Settings popup (shown above), keep the default parameters for Home/Work Area, Year, and Job Type options (Note: At the time of writing, 2021 was the default year). Click **Go!** at the lower 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 a set of bar charts and summary report.





2. In the map above, Minneapolis employment locations of workers living in St. Paul are represented by the blue thermal density overlay that displays jobs per square mile. Employment locations are also aggregated into census blocks in the Points Overlay with each block represented by a blue dot. A blue dot will not appear for census blocks with no employment. Refer to the Legends section in the Results tab to see the estimated number of Minneapolis 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 Minneapolis **and** living in St. Paul for the selected year. The chart above the report displays miniature versions of the Labor Market Segment group bar charts.

### Examining the Map, Chart, and Report

1. The title at the top of the Results tab ("Paired Area Analysis; Workers: Employed in Minneapolis city, MN and working in St. Paul city, MN; Showing: Employment locations") means the analysis is showing work blocks from a constrained workplace location (Minneapolis) to a constrained home location (St. Paul). If the **Swap** button had been clicked in the Home/Work Area section of the Analysis Settings popup, the results would analyze Minneapolis as the home area and St. Paul as the work area.

2. The options in the Display Settings section of the Results tab, Labor Market Segment, Year, and Map Where Workers, offer the ability to change the data shown in each component of the Results tab. A Labor Market Segment filter can be enabled by clicking a segment in the summary report. If more than one year was selected in the Analysis Settings popup, other years of data can be activated using the Year dropdown. The final dropdown allows users to



toggle whether home or work overlays are active in the map viewer. Click the Map Where Workers dropdown and change the setting from **Work** to **Live**. The point and thermal overlays will move from inside the city of Minneapolis (the area selected as the work area) to St. Paul (the area selected as the residence area).

3. The Map Controls section of the Results tab contains a variety of tools for changing the overlay colors, turning overlays on/off, clearing all overlays, centering the map on the

selection areas, and overlay animation. Clicking a blue dot in the map will display an **Identify** popup showing the count of workers living in that census block and working in Minneapolis. The popup displays the 15-character census block identifier and the count of jobs for the active year. If more than one block appears in the popup, zoom in and click the point again. The identify popup to the right shows that 29 workers live in the identified block and work in Minneapolis as of 2021.



4. The chart and summary report to the right of the map viewer provide an alternate view of the results and allow users to filter to results by one of the available worker or firm labor market segments. Scroll to the Worker Age section of the report and click Age 29 or younger. The map overlays update to show points and thermals for only jobs held by young workers (that share the selected paired area), and the chart and report update to display information on worker age characteristics. In addition to age segments, the summary report includes options for earnings and industry groups. The colored boxes next to the characteristic categories in the summary report serve as the legend for the pie and bar charts. As shown in the report and chart to the right, 25.3% of the workers employed and living in the selected paired area are aged 29 or younger. Click All Workers in the summary report to remove the worker age filter from the results.



6. 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 job counts and characteristics for the Paired Area, as well as the Home Area only (regardless of where residents work) and the Work Area only (regardless of where workers live) for comparison. Also included are sections showing job counts by worker age, earnings, and industry segment. The Detailed Report includes data for only the year selected in the Year dropdown



in the Results tab. Export this report to PDF, Excel spreadsheet, 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 HTM	<u>ML</u>					
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Jobs by Worker Age							]
	Paired	Paired Total		Home Area Only Total		rea Only otal	
	Count	Share	Count	Share	Count	Share	
Total Private Primary Jobs	19,874	100.0%	103,707	100.0%	260,215	5 100.0%	
Age 29 or younger	5,023	25.3%	29,995	28.9%	55,597	7 21.4%	
Age 30 to 54	11,287	56.8%	54,585	52.6%	151,210	58.1%	
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7. 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 Paired Analysis Settings popup. Swap the Home/Work Area setting to view information on workers living in Minneapolis and working in St. Paul or cancel the Advanced Selection to view information on other home locations for workers employed in Minneapolis. A complete list of sample walkthroughs for each analysis type is available <u>here</u>.

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 <u>here</u>.

