

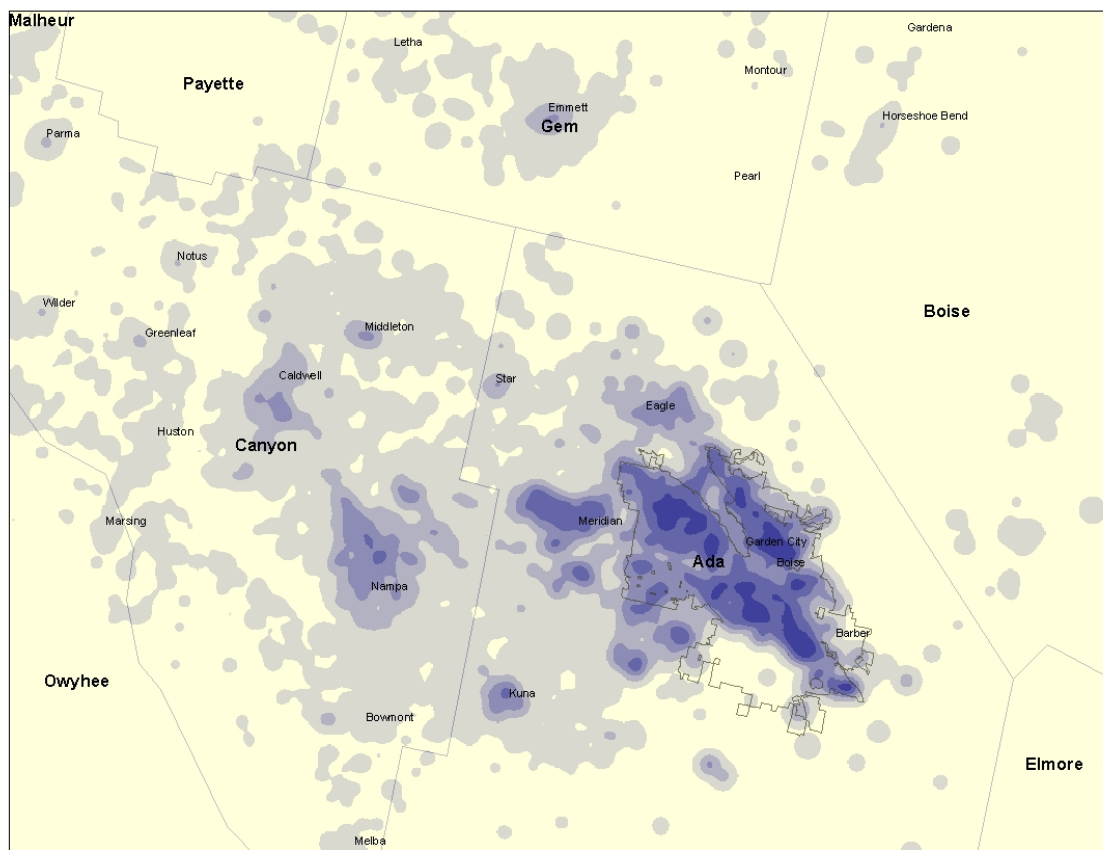
## Defining the Economic Region: LEHD and Input-Output Modeling

LEHD OnTheMap <http://lehdmap.did.census.gov/>

Using OnTheMap for identifying a functional economic area is relatively easy. Select the area initially affected by changes in defense activities, whether a city, county, zip code or Metropolitan Statistical Area (MSA). This will provide the basis for conducting workforce analysis. Once identified, two specific components within the tool are particularly useful: “distance/direction” and “destination.” For analysis of the area’s impact workforce, select “work” as the analysis criteria. This will analyze the workforce flows into the identified area for work and capture locally present workers and in-commuters.

Additional sub criteria are available to narrow or expand the types of output from the analysis, such as in-commuting by city, county, MSA, or state. The following heat map illustrates the workforce flows for Boise, Idaho. As can be seen, Boise draws large portions of its workforce from neighboring cities such as Eagle, Meridian, Nampa, and Caldwell. Some of these cities, such as Nampa, Caldwell, and Middleton, are located in other counties such as Canyon and Gem. The darker the shading on the heat map indicates a larger concentration of commuters.

If a functional economic area were to be developed, these neighboring cities and counties should be considered as part of the region impacted by Boise’s economic activities.



## Input-Output Modeling

Though not typically available through free online applications, input-output (IO) modeling is another predictive tool used to define a functional economic area. Since IO modeling uses estimates of industry linkages and activity within a given geography, the tool can be leveraged to determine how the level of economic activity generated within a given area meets the demand for goods and services within that area.

For example, Boise, Idaho locally produces roughly half of the supply needed to meet the demand for goods and services within the city. However, when the geography is expanded to include the region of Ada, Canyon, and Gem Counties, the portion of local production that meets local demand increases to almost 70 percent. In other words, neighboring areas to Boise City produce goods and services that the city also consumes and likewise, the city produces goods and services that the surrounding area consumes. Collectively, the region produces a larger proportion of the required goods and services that are traded and consumed at each locale within the region.

When evaluating the level of demand satisfied by local production, two critical components need to be considered:

- (1) total regional requirements by industry sector; and
- (2) the regional purchase coefficient (RPC), or the amount supplied by local industry.

These values are typically available in any input-output model. However, it is advised that a region seek the services of a regional planner or economist if unfamiliar with the tool. There is no concrete rule that dictates the level of local production relative to local demand that would constitute a closed or semi-closed economy. The regional leadership or analyst must ultimately decide what constitutes an acceptable level of local production supply.