

INTRODUCTION

Workforce Development



The foundation of an economically competitive community

Workforce development is the foundation of an economically competitive community. In fact, the availability of skilled labor is now the #1 most important site selection factor when corporations are considering locations for major capital investments, according to 2013 survey results from Area Development Online. Successful economic development requires a coordinated approach to education and workforce training—all three areas must work together to ensure that workers in the community can compete for living wage jobs. In addition, having a population of workers that live and work in the same community achieves many sustainability goals, including fewer cars on the road, improved air quality, and happier community members who spend less time commuting and more time with their families. Working closer to home also helps locally owned businesses and the tax base, as workers eat lunch and shop after work in the community.

This tutorial will walk you through a three step process for analyzing your local workforce and identifying potential business and education partners for workforce development programs. For this example, we will focus on manufacturing, but you could look at other industries, too.

- First, we will demonstrate how to map your local workforce employed by the manufacturing industry, and where they are commuting to work. You can use this information for a variety of purposes, such as identifying potential sites for

manufacturing training programs that would be convenient to where people live, or showing site selectors that your community has an available workforce.

- Then, we will use available data to identify potential industry and educational partners.
- Last, we will view all of these data layers in an interactive environment that is helpful for communicating this data to a technical or non-technical audience.

All you will need is Google Earth and the links on this webpage.

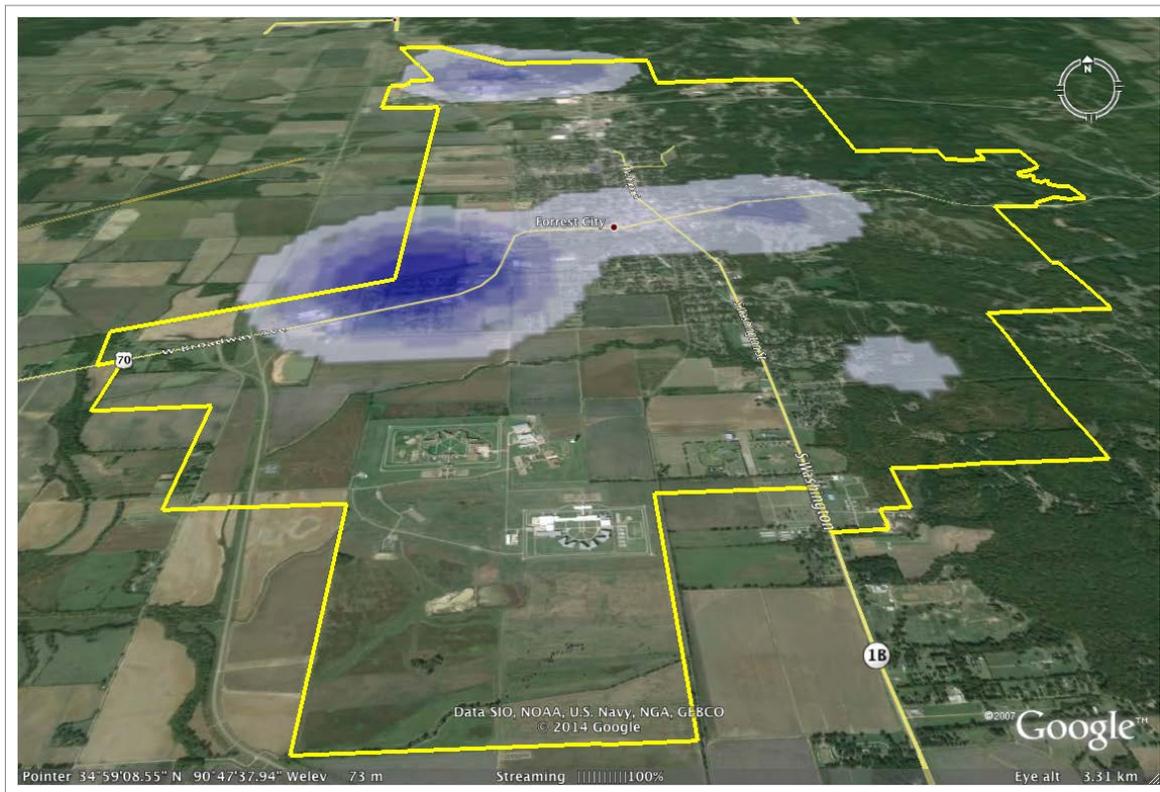
To view this document offline, click here:



Click STEP 1 or scroll down to get started.

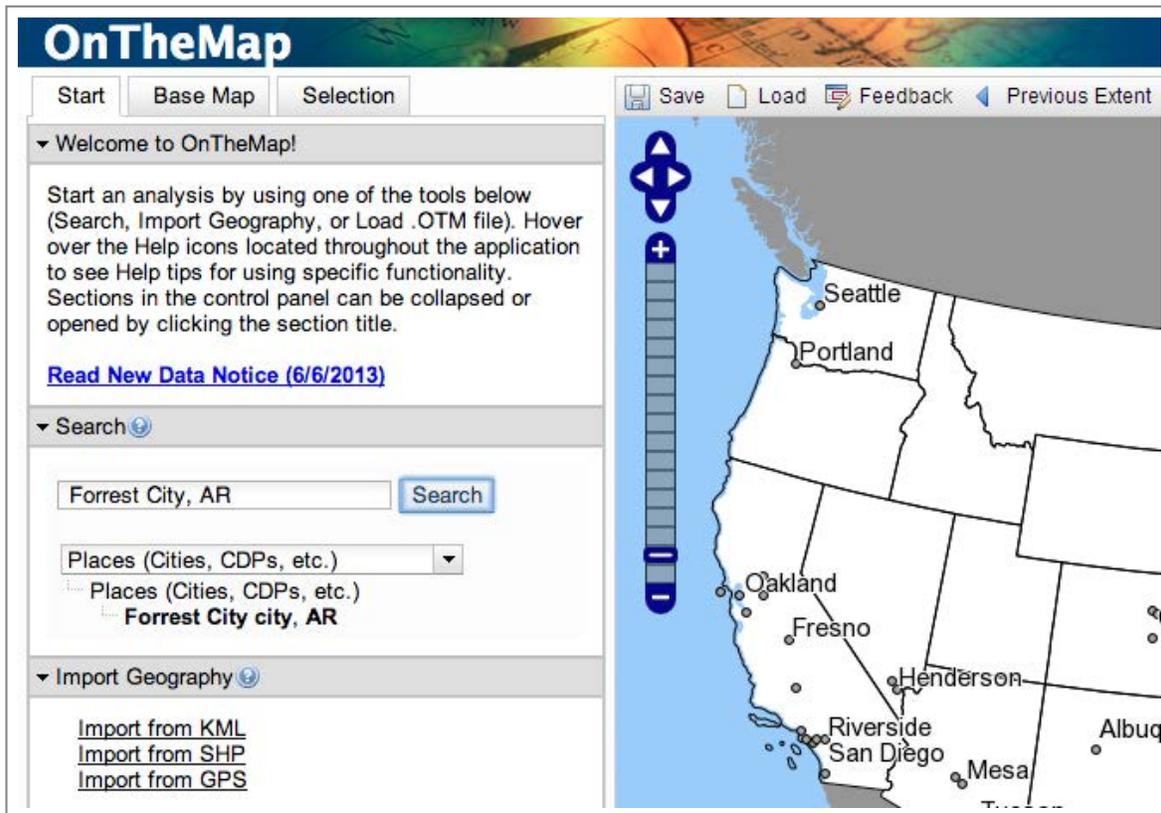
STEP ONE

Map Your Community's Manufacturing Workforce



KML Showing Local Manufacturing Capacity in Forrest City, AR

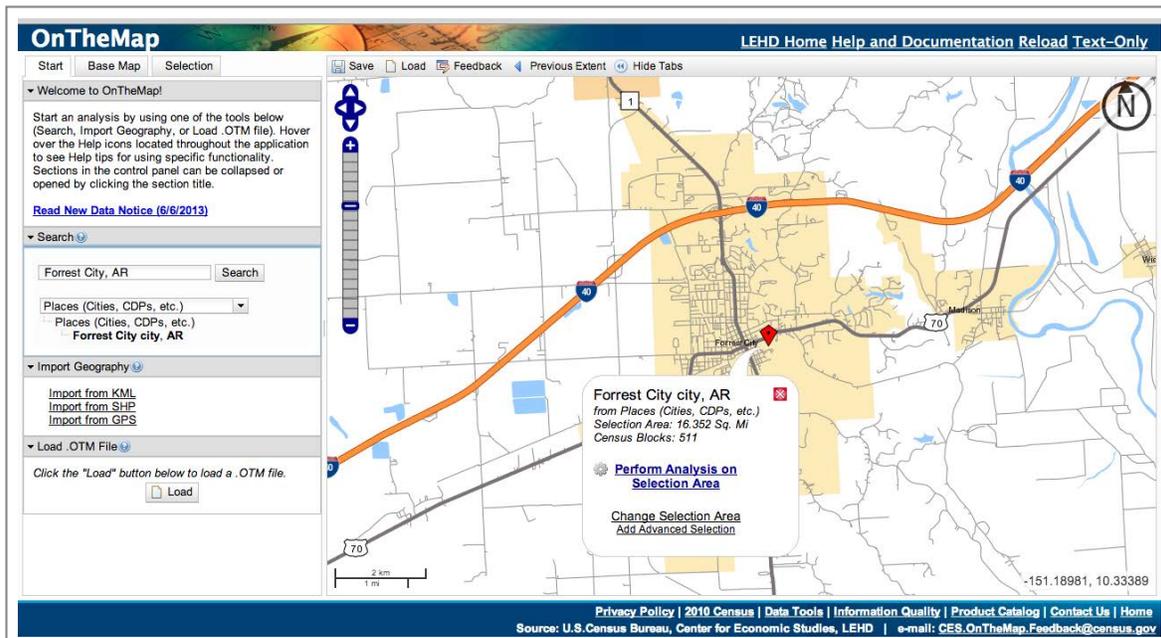
By the end of this first step, you will be able to view this image in Google Earth. Start by visiting the US Census OnTheMap to identify manufacturing workers in your community.



Start View of OnTheMap from the US Census

On the left side of the page, you will see various menus. In the menu box for "Search", enter "Forrest City, AR" in the textbox, then click Search.

Find and click **"Forrest City city, AR"** in the search results, and the map will zoom to your new selection.



Map Results

A pop up box highlights your selection. Click the option to **Perform Analysis on Selection Area** to bring up settings for analyzing the selected area.

Analysis Settings

Distance/Direction Analysis in 2011 by Primary Jobs

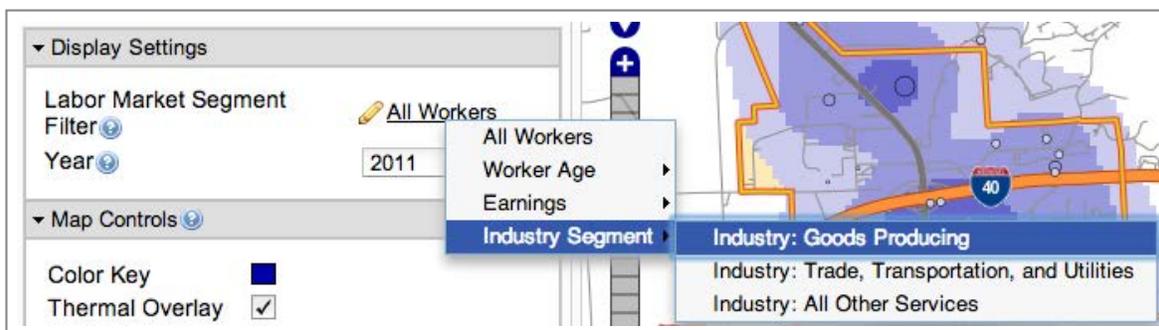
Home/Work Area	Analysis Type	Year	Job Type
<p>Determines whether the selection area is analyzed on where workers live ("Home") or where workers are employed ("Work").</p> <p><input checked="" type="radio"/> Home <input type="radio"/> Work</p>	<p>Determines the type of results that will be generated for the selected area.</p> <p><input type="radio"/> Area Profile Labor Market Segment: All Workers</p> <p><input type="radio"/> Area Comparison Areas to Compare: Places (Cities, CDPs, etc.) Labor Market Segment: All Workers</p> <p><input checked="" type="radio"/> Distance/Direction</p> <p><input type="radio"/> Destination Destination Type: Places (Cities, CDPs, etc.)</p> <p><input type="radio"/> Inflow/Outflow <small>Note: Home/Work choice does not affect results</small></p>	<p>Determines the year(s) of data that will be processed in the analysis.</p> <p><input checked="" type="checkbox"/> 2011 <input type="checkbox"/> 2010 <input type="checkbox"/> 2009 <input type="checkbox"/> 2008 <input type="checkbox"/> 2007 <input type="checkbox"/> 2006 <input type="checkbox"/> 2005 <input type="checkbox"/> 2004 <input type="checkbox"/> 2003 <input type="checkbox"/> 2002</p>	<p>Determines the scope of jobs that will be processed in the analysis.</p> <p><input type="radio"/> All Jobs <input checked="" type="radio"/> Primary Jobs <input type="radio"/> All Private Jobs <input type="radio"/> Private Primary Jobs</p>

Analysis Settings

This menu has four columns: **Home/Work Area**, **Analysis Type**, **Year**, and **Job Type**. Make the following adjustments to the settings menu:

- Set the **Home/Work Area** to Home, because we are interested in finding out where residents of Forrest City are commuting to work. For a different analysis, you could set this to Work if you wanted to know where all the people working in Forrest City live (i.e. people commuting from another city to a job in Forrest City).
- Set the **Analysis Type** to Distance/Direction, because we are interested in finding the direction and commuting distance of where our residents work.
- Set the **Year** to 2011, because we are only interested in the most recent year.
- Set the **Job Type** to Primary Jobs, because that is the scope of job types that most interests us.

Click Go to see the results of your analysis. If you are interested in updated search, click the Change Settings button at the bottom-left corner of the page.

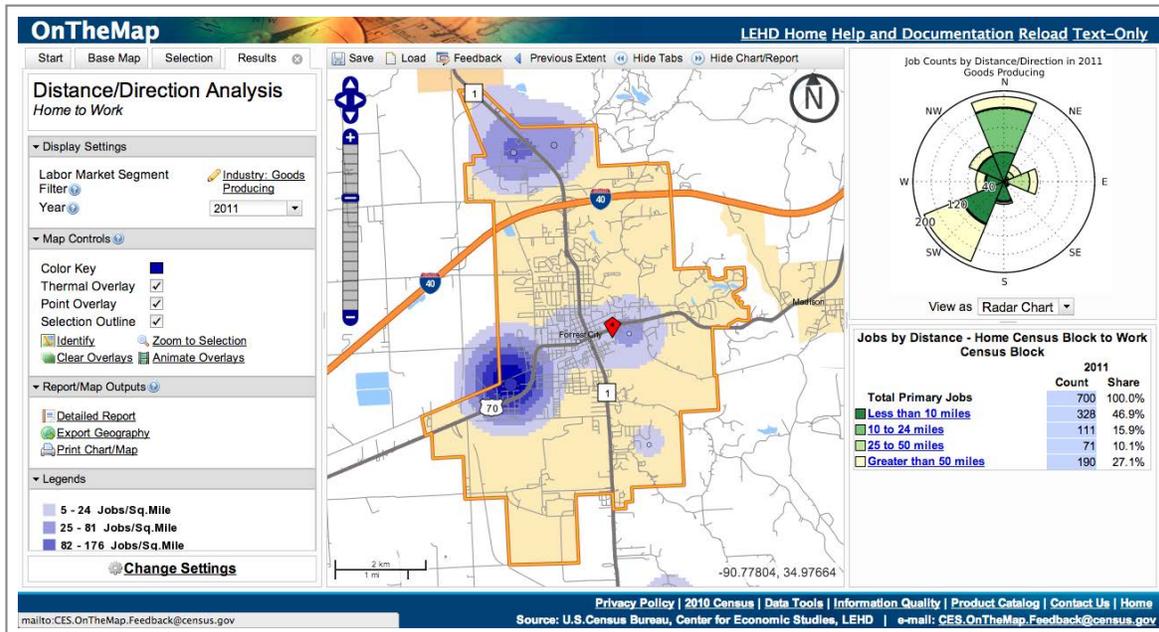


Refining Display Settings

Now we will want to refine our results by Industry Segment to focus on manufacturing. At the top left of the menu you will see a Display Settings box.

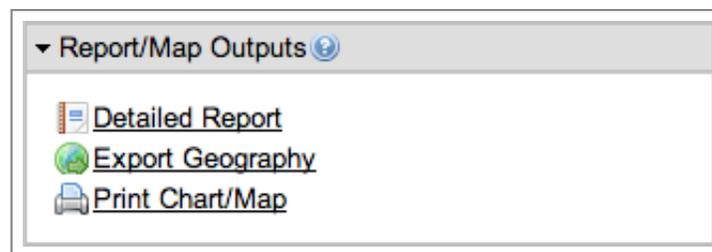
Select All Workers > Industry Segment > Industry: Goods Producing.

The map will automatically update to reflect your refined analysis showing work locations of Forrest City residents who are employed in the manufacturing (goods producing) industry. The table to the right of the map indicates that, according to Census records, 700 residents of Forrest City work in the manufacturing industry, and approximately 47% of those residents are commuting to jobs that are less than ten miles away from their homes. Approximately 27% of those residents are commuting to jobs more than fifty miles away. These workers could serve as your target population for exploring training programs that would enable them to take jobs that are closer to home, with help from industry and education partners. A second use for this information could be to communicate to site selectors that you have existing manufacturing workers that are commuting to jobs who may prefer to work closer to home.



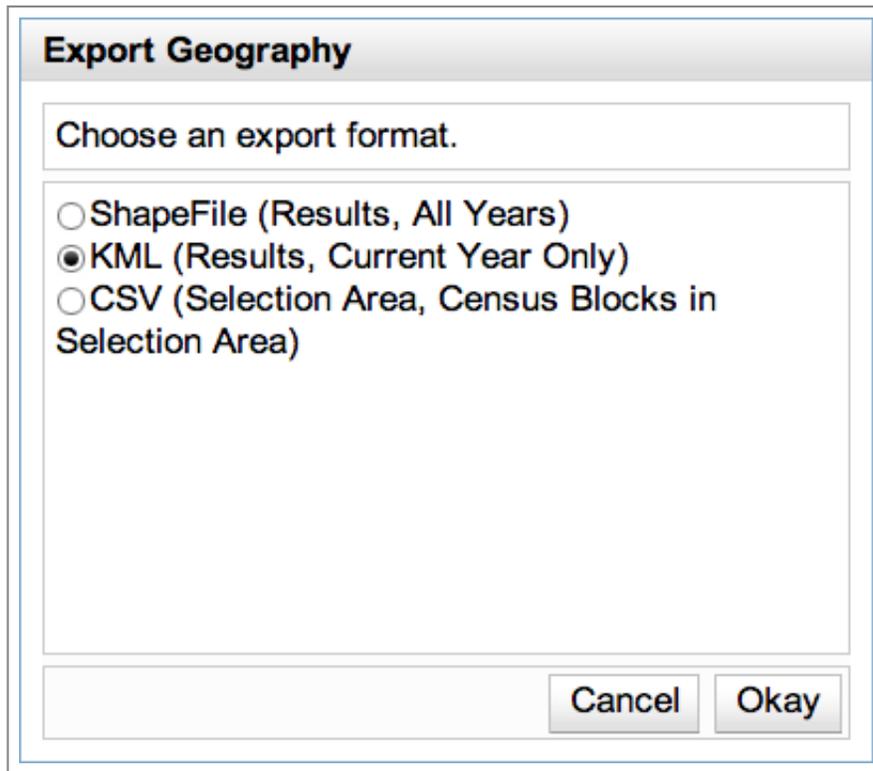
Updated Map Based off of New Display Settings

Now that we have our results, we will download a KML to be able to view this data in Google Earth. In the Report/Map Outputs box on the left side of the page, select [Export Geography](#).



Export Geography

Now select the type of file we want to download. In this case, we want the KML.



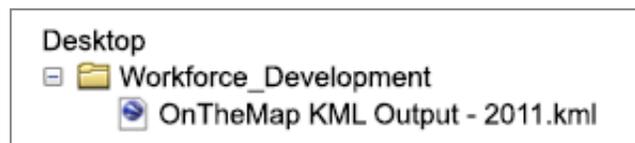
Choose the Correct Export Format

Then choose the correct download type. In this case, want Download Geography Export.



Choose the Download Type

In a moment, your download will start. Create a folder on your Desktop called "Workforce_Development". Place your new KML file in this folder.

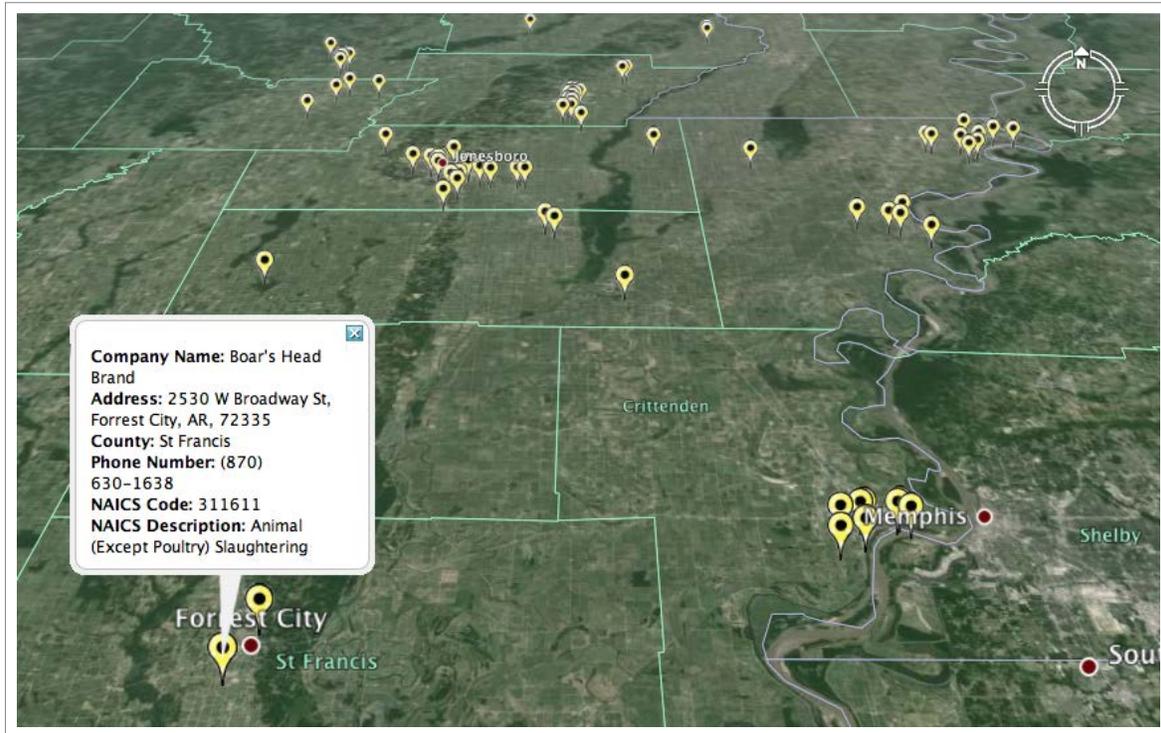


Create a New Folder on the Desktop and Store Your KML here

You can either view this file now in Google Earth, or wait until we have finished the analysis. Either way Step One is finished!

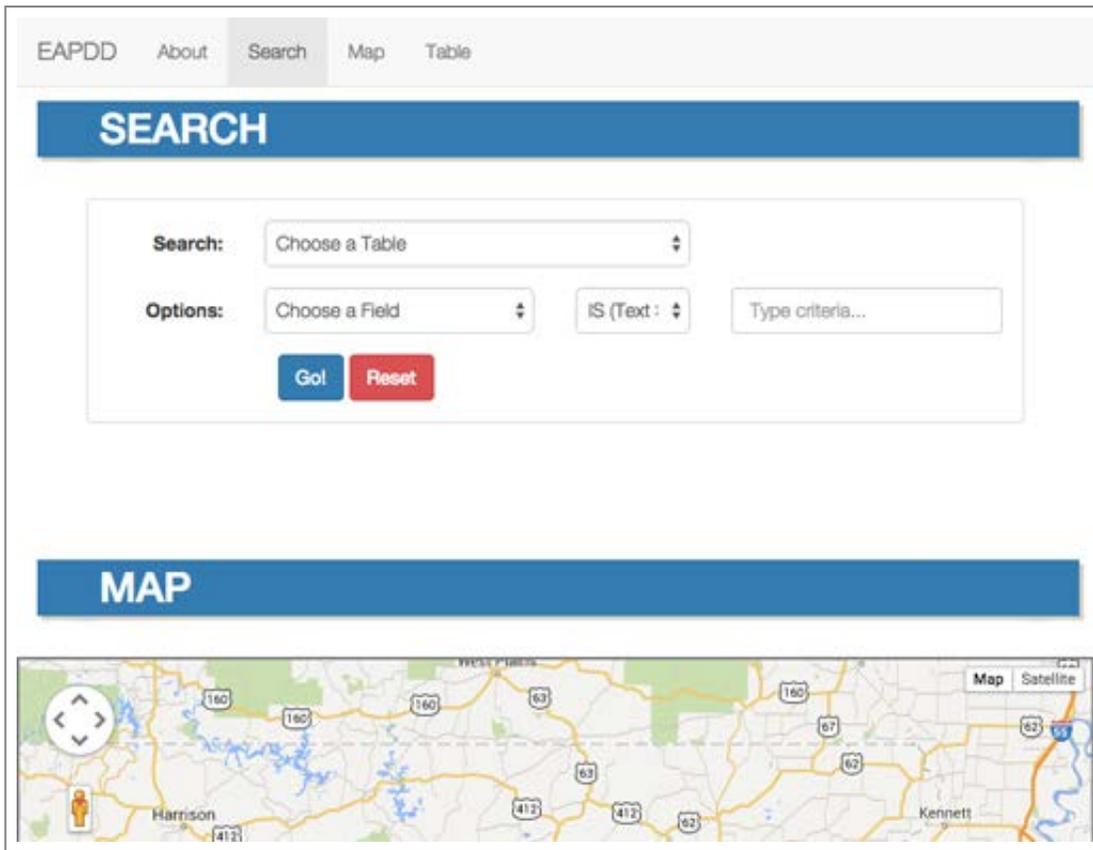
STEP TWO

Identify Industry Partners



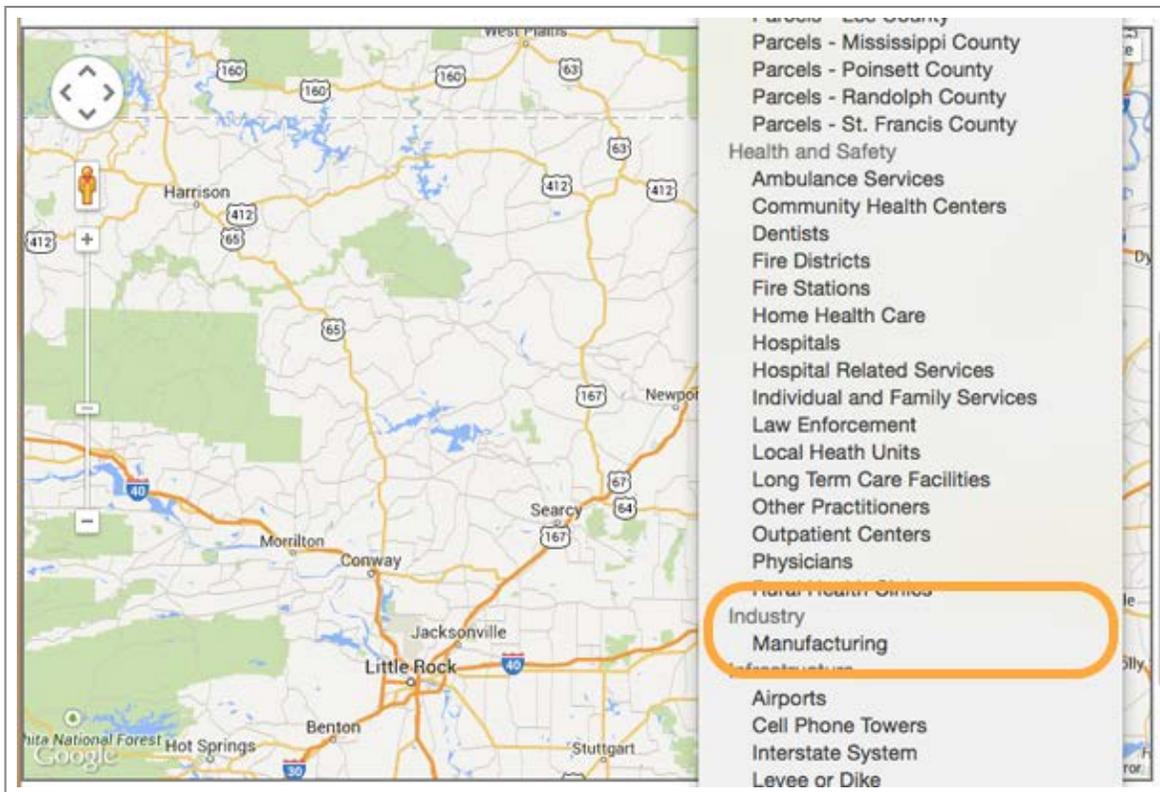
KML Showing Local Manufacturing Businesses across the EAPDD

Now that you have identified your community's manufacturing workforce, let's identify potential industry partners for a workforce development initiative. Visit the Regional Interactive Map at the EAPDD.



EAPDD Interactive GIS Map

The MAP section is setup for quickly viewing GIS layers. In the legend, on the lower right hand corner, use the dropdown menu to find all Manufacturing businesses in the EAPDD.

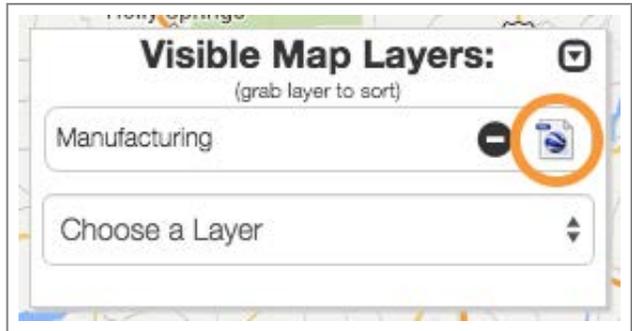


Select Manufacturing Businesses across the EAPDD



Manufacturing Businesses across the EAPDD

Within the legend, your layer should now show up with two icons next to the name. A minus sign for removing the layer and a KML icon for downloading the layer. You will also notice below in the TABLE section there will be an icon next to the name of the table for downloading a CSV of the layer. Click the KML icon and a download will start for a new KML of the selected layer.



View of the Visible May Layers/Legend

Place this new KML in the same folder you put the other file. If you want, you can view this file in Google Earth by double-clicking the filename. Either way, Step Two is finished!



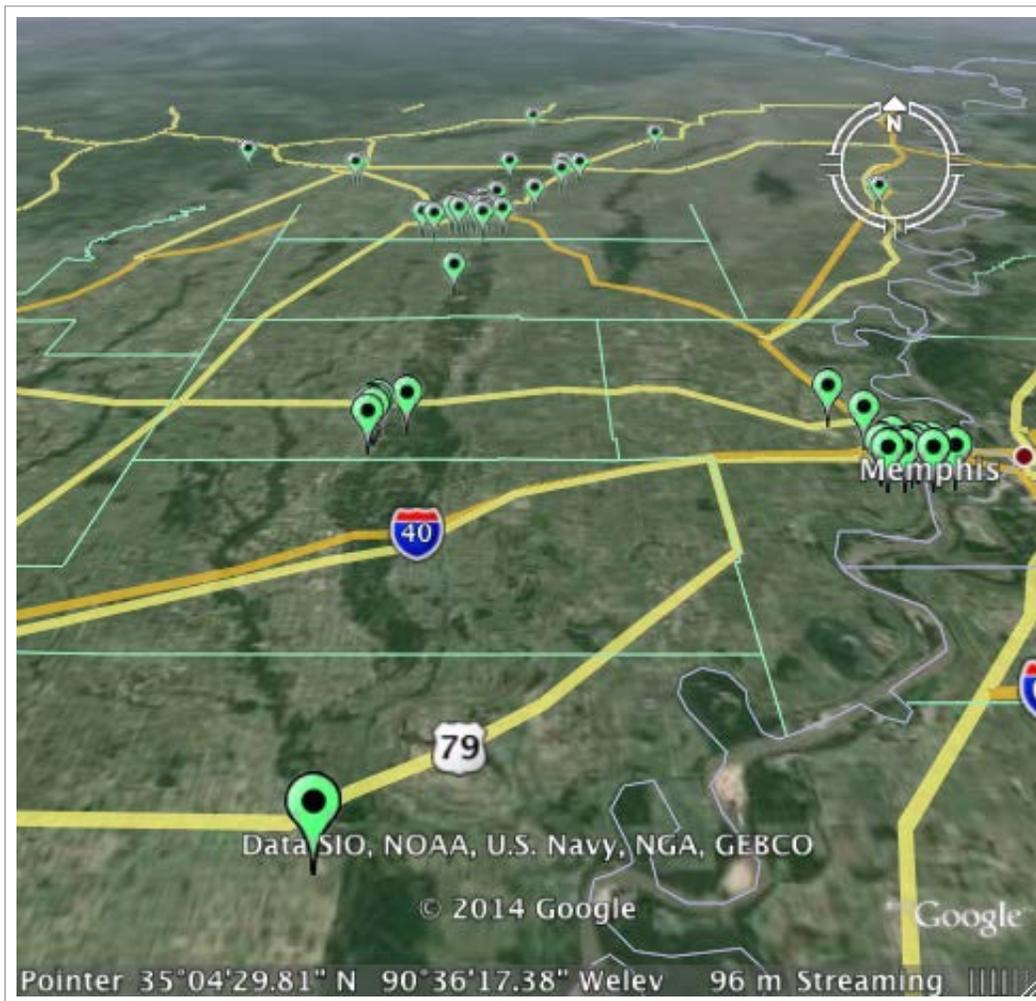
Store Your KML in the Same Folder as Before

You have now identified manufacturing businesses in the region that you can contact about workforce requirements, hiring needs, and customized training programs that could be explored with the goal of providing more employment opportunities for local residents. Local economic developers in Forrest City can use this information to contact nearby

companies about partnering on workforce development efforts—now armed with data and a map showing exactly how many local residents have relevant experience and how far they are commuting. Economic developers can also use the business data to identify manufacturers in the EAPDD region who may have similar workforce needs—perhaps there is an opportunity for a regional workforce development initiative involving multiple communities and industry partners. Many federal grant programs prioritize regional workforce solutions for cost effectiveness and other reasons. You now have data to pursue local and regional opportunities.

STEP THREE

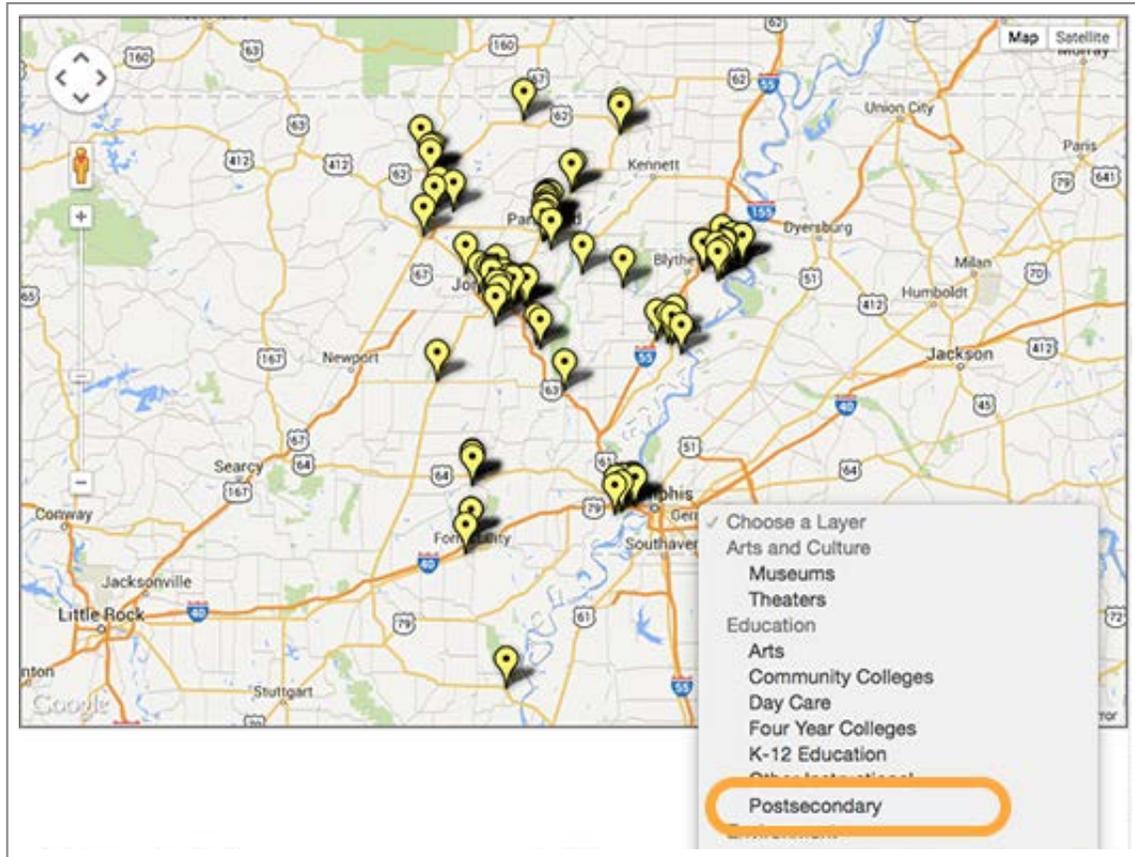
Identify Education Partners



KML Showing locations of Postsecondary Education across the EAPDD

Now that we have identified our local manufacturing workforce and potential industry partners, let's identify potential education partners to complete the data collection process. We will again use the EAPDD Interactive Map.

Again, use the dropdown menu within the legend and, under the Education category, select Postsecondary.



Choosing locations of Postsecondary Education

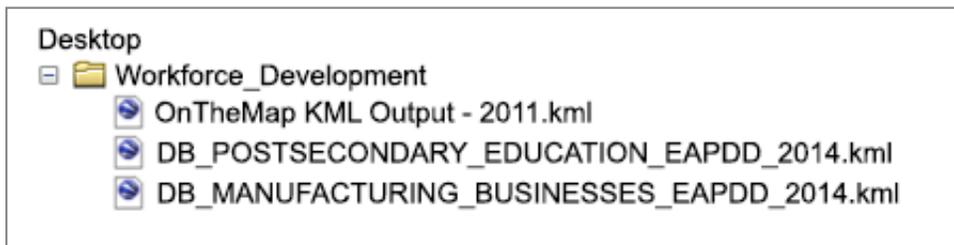
You should now see a layer with a list of universities and community colleges across the EAPDD region. You could also show the locations of K-12 schools, particularly those that offer career and technical education (CTE) programs relevant to careers in manufacturing.



Locations of Postsecondary Education next to Manufacturing Businesses

Going back to our example community, economic developers in Forrest City could use this data to evaluate potential locations of training programs and partners for grant applications. In this case, perhaps a partnership could be explored between East Arkansas Community College, local school districts, and maybe even other postsecondary institutions in the region.

Now, click the KML icon and a download will start for a new KML of the selected layer. Place this new KML in the same folder you put the other file.

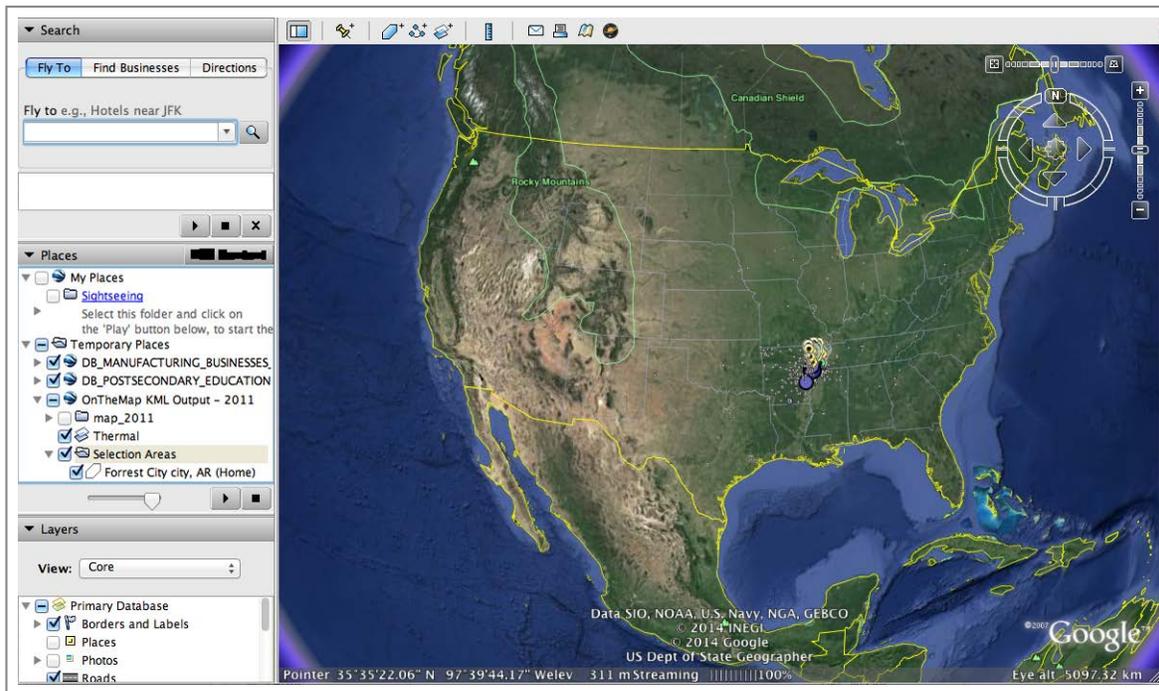


Store Your KML in the Same Folder as Before

Step Three is now finished! Let's move on to the final step to view all of our new layers.

STEP FOUR

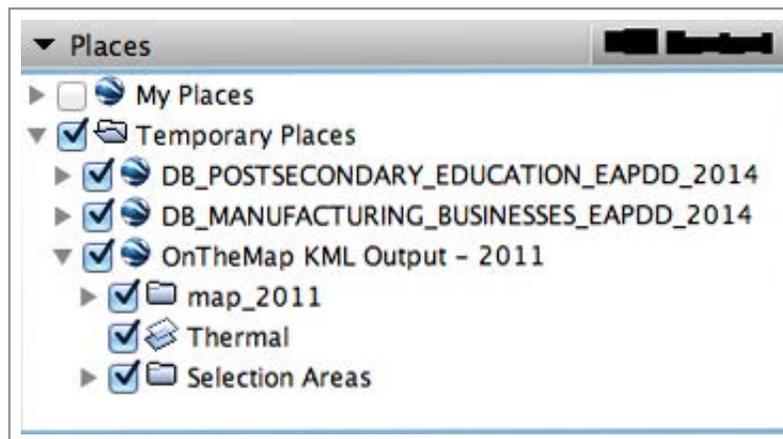
View Results - Make Connections



Google Earth Nationwide View of All The Data

Now that all of the data has been collected, we will proceed to visualize it using Google Earth. This is where you get the full value of using data to help align economic development, workforce development, and education efforts.

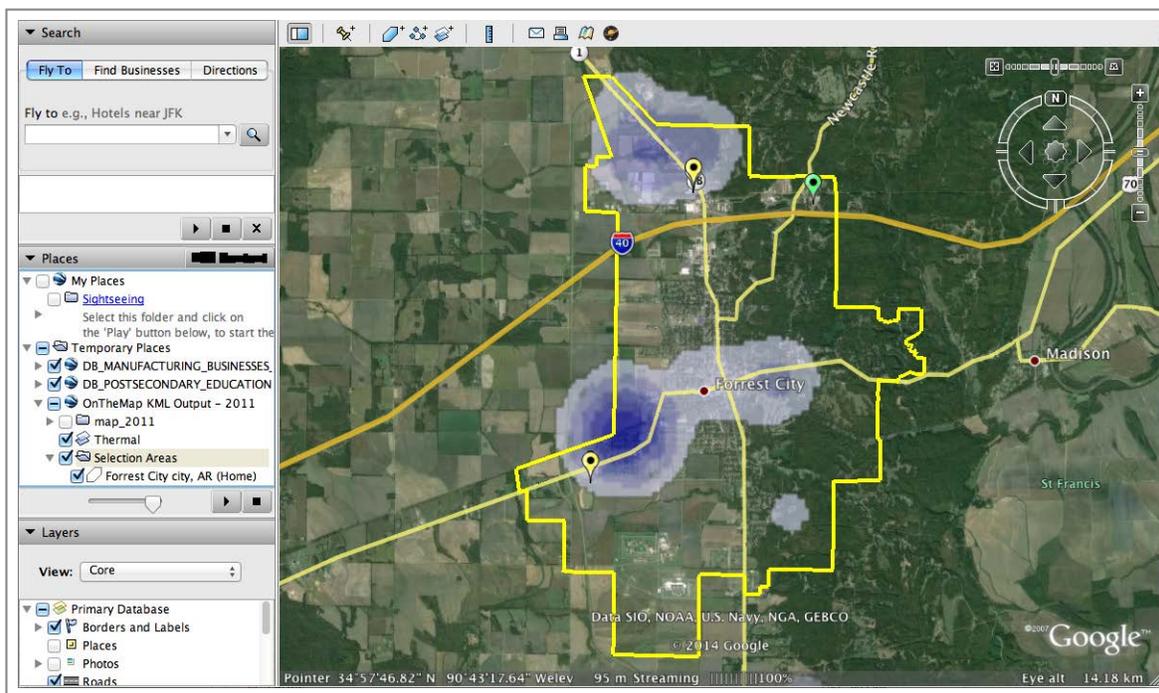
First, navigate to the folder where you stored the three KMLs. Double-click each file until you see them listed in the Google Earth Places Menu:



Google Earth Places Menu

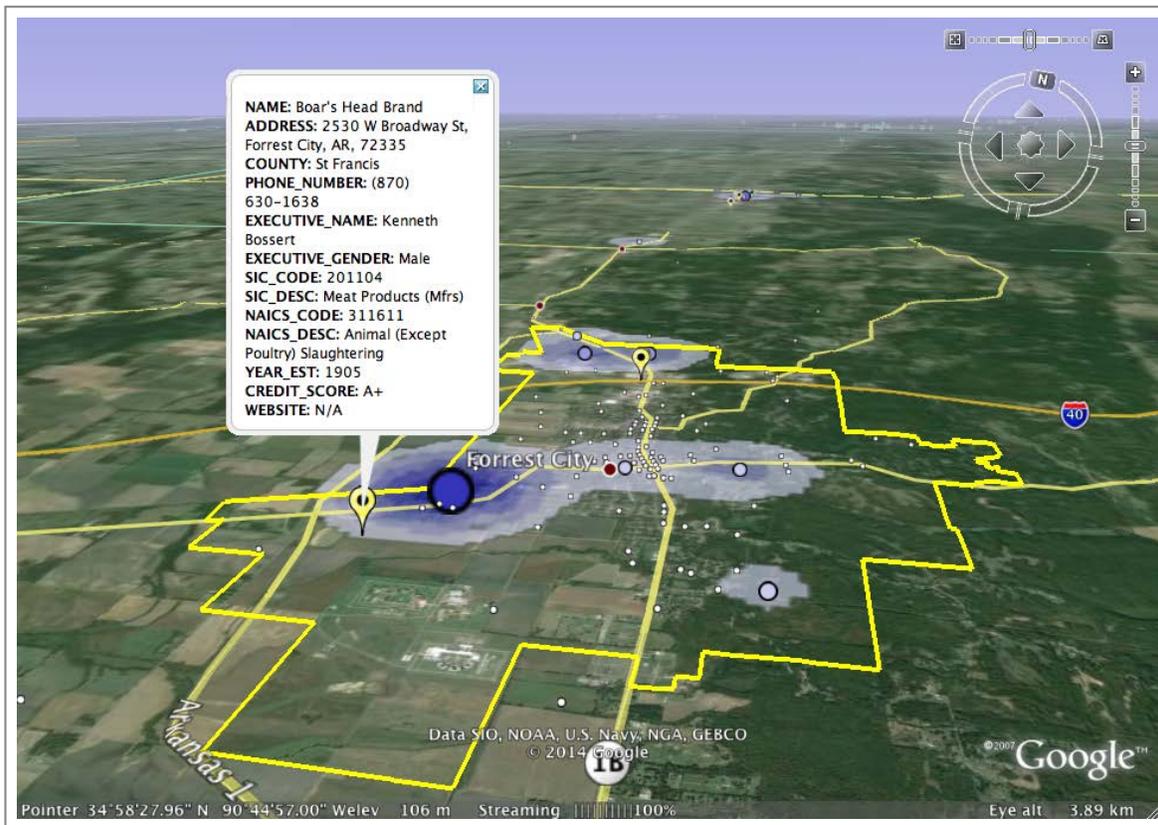
Now, because our extent is nationwide, we will want to zoom in to our site. Within the places menu, double-click on "Selection Areas" to zoom in to our site. Here you can see where the data sets intersect for Forrest City—where residents with manufacturing experience work, potential industry partners, and potential education partners. Local economic developers are already aware of these connections, but using this data you can visualize them as a means of communicating to other audiences about how these various aspects of your local economy come together—whether that means justifying why your community should win a grant for training or convincing a site selector that you have the necessary assets to provide skilled workers today and tomorrow through partnerships with schools districts and colleges.

Zooming out to see where Forrest City residents are working around the region is another way you could use the data to demonstrate to companies and education institutions how connected and interdependent the communities of EAPDD are within the regional economy. Visualizing the data in this way allows you to connect with audiences in a compelling way that does not rely on static data tables and long narrative form reporting. Seeing connections motivates action.



Forrest City, AR

Take advantage and experiment with the navigational buttons at the top right of the Google Earth viewer. Also, click on the different layers to understand more about the available data.



Final View of our site

For more information about similar types of analyses and data, check out the More Info tab below to learn about grant opportunities, best practices in workforce development, and more.

MORE INFO



Federal Grant Opportunities:

- Department of Labor/Employment and Training Administration Grants

Arkansas Grant Opportunities:

- Arkansas EDC
- Arkansas Grant Watch

Best Practices:

- State of Wisconsin's Department of Workforce Development

- Urban Institute

by Civic Analytics