

**Transcript:**

**OnTheMap: The Road to Local Employment Dynamics**

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**Presented by: Eric Coyle**

Eric Coyle: Thank you all for joining the OnTheMap, Road to Local Employment Dynamics webinar today. My name is Eric Coyle and I am the Data Dissemination Specialist with the Census Bureau. And I'm one of many other Data Dissemination Specialists that are throughout the country who are available to conduct these types of trainings, whether it's in person or via webinar. They can also respond to data inquiries from all the different types of data users and stakeholders that we have out there.

I currently cover six states which include the 13 counties in the Dallas- Fort Worth MSA. I also cover Nevada, Arizona, Utah, New Mexico, and Hawaii. So if you reside in any of those states you can definitely reach out to me directly and I can assist you with any of your Census data needs.

Additionally, if you reside outside those states, you can still reach out to me and I can try to get you in touch with your local Data Dissemination Specialist, or you can also send an email to [census.askdata@census.gov](mailto:census.askdata@census.gov). And I'll put that in the chat for everybody so there you can see that. So if you reside outside of those six states I just referenced, you can go ahead and send an email there. And they can also handle data inquiries or get you connected to your local Data Dissemination Specialist who provide the same type of training whether it's in person or via webinar.

So a couple of other things before we do get started. I want to just cover the housekeeping real quick. All lines are currently muted. But if you do have an immediate question you can either use the chat feature. We are joined today, fortunately, by one of our LEHD Subject Matter Experts, Heath Hayward who has been kind enough to take time and join us on this webinar today. So if you have any technical questions or more in-depth questions, you can definitely send them directly to him. He's on there as a Panelist and you can see him if you look where you can send a chat. You can send a question directly to him or to the chat feature and he can see that. Or you can just hit star-six and unmute your line and then hit star-six to mute it right back.

I will allow some time for questions. I will open up the lines. When I do so I'll hope that everybody muted their lines so that we don't - and didn't put their lines on hold so that we don't have to be subjected to everyone's lovely hold music out there. So, again, I'd ask you, if you can mute your lines to help reduce the background noise when I do open up the lines for questions and also just as a reminder to please do not put your lines on hold. We will all be subjected to that amazing hold music that's out there.

So with that, let's go ahead and get started on what we'll be covering today. I will also note that everyone will receive a copy of the presentation. And a recording of this webinar will be posted to Census Academy eventually. It has to be processed and then we will get it onto

the website. But the presentation, I'll send that out to everybody within the next 24 hours, so you'll get a copy of the presentation that we're covering today.

What we'll be looking at today will be specifically giving you an overview of the LEHD/LED Program as well as an understanding of our NAICS codes, the basic universe in which the data is collected for industries. And then looking at Census Geography. I previously conducted a webinar on the QWI Tools, so if you went on that, this will be pretty much a refresher for you.

One of the things we didn't cover in the QWI was Census Geography because the QWI, the Quarterly Workforce Indicators, does not get down to a lower level than county level. So the - however, the OnTheMap tool does actually go down to the block level on Geography. And if you don't know what that is, you will when we cover it.

And then we'll, of course, look at the various tools that we have available, some additional resources, and we'll have a Q&A before we actually go online and do a demo of the OnTheMap Tool.

So getting right into, you know, the LEHD Program itself. And what is the LEHD Program and why does it exist? Well, essentially it was created in 1999 as sort of the program was sort of the center for economic studies at the U.S. Census Bureau. And the purpose is really to look at all this longitudinal data that we have to link our Jobs Data that we have, or link the Jobs Data that's out there, the Longitudinal Data, with our other data that we collect through surveys and other programs, along with the federal data that we can get from OPM and other agencies out there.

So that program is pretty much designed to combine existing data and then give it back to the public and make it easy to access through these various data tools that we have available.

To do this through this program, we have the LED Partnership. And so this is a state partnership that we have with all 50 states except for Alaska. Alaska has currently opted out so we don't have data for Alaska currently. However that could change. Previously it was Wyoming had opted out. Wyoming has since opted back in and now we have Alaska that has opted out. So perhaps they will have of heart as well and opt back in.

But otherwise, for all other states, we are getting data from them based on sort of how much data they provided the while just to come back to whichever timeframe they've given us in regards to that data. So for Arizona, for example, you can only go back to as far as 2004.

Now the LED Program itself, the partnership with the states that we have, it does provide this unprecedented detail about the jobs and workers and the local economies. If I'm looking at that longitudinal record of employment and so what we can do is, again, look at this existing data from the state-supplied administrative records and actually, you know, be able to combine that with our survey data as well, and then cross-tabulate that with those characteristics. So it really gives you this broad overview based on back employment data that we have for various geographies.

So this is part of this Department of Commerce's Open Government Plan to make this data available to the public. That is the goal. There's always federal data out there. And this is part of that overall goal to make it accessible to the public.

So as I mentioned, we combine the state records with our survey data, administrative data, and other federal agency data as well, to look at data on the firms and establishments, jobs and workers, and firm and person characteristics. The beauty of all this is that we're doing this without any new responding burden. So there's not a new survey that's going out there and costing the government money to go out and collect all this data.

This data already exists. It's just the - provided to us through the partnership and which allows us to then put that into our data tools and makes it accessible to the public. So when you're looking at how all this data comes together when you look at the Firm Data and you look at the Quarterly Census of Employment and Wages that comes into that, along with that Economic Survey Data and the business Register, that's all part of that Firm Data.

And then you have that Unemployment Insurance Wage Record that comes into the Jobs Data along with the OPM Data. I will give you a caveat for that OPM Data when I give you the note about the latest data that's going to be inputted into the LED OnTheMap tool.

As far as the Household Data, that is the federal records that we have as well as that Census Survey Data that's going into that to give us those worker characteristics, okay? All that gets mashed into this well-oiled machine, our LEHD machine that then produces our Public Use Data Products.

So you can see the products that we have here specifically. We have the OnTheMap/LEG which is comprised of the LEC Origin Destination Employment Statistics, and that LODES acronym there is - probably belongs to acronym in the history of time because that L stands for LEHD, Local Employer Household Dynamics. Then you get Origin Destination Point Statistics, so.

But that is where we can create our OnTheMap tool to actually allow us to look at this data down to the block level. You also have the Quarterly Workforce Indicator. That was the webinar I did previously where we showed you how to use that specific tool. I'm looking at Job Creation/Destruction, Hires, Average Monthly Earnings, and all able to cross-tabulate it with different worker characteristics, race, sex, ethnicity, et cetera.

You also have the job-to-job flow which if you want to look at transitions between jobs by timing and firm, or worker characteristics, you can use that specific tool. And you also have the new Post-Secondary Employment Outcomes, the PSEO Tool.

And this is looking at the Post-Secondary Employment Outcomes in terms of the income by the Post-Secondary Degrees. So we have four universities that are opting into this data to provide us this information that allows us to create these tools and give it back to you, give you the data.

So some of the important things to note. That the jobs data covers 95 percent of private employment in most state, local, and federal jobs. The QWI I need to add is 100 percent

private jobs only in the QWI. Contains only Unemployed Insurance-covered jobs. No Post Office jobs, no military, no self-employed, 1099 et cetera.

There also are no any of the three-letter agencies, secretive, clandestine agencies like the NSA, CIA, FBI. And you also - I will note that for the 2016 and 2017 data which is about to get put into the OnTheMap tool later this fall, there won't be any OPM - any federal data in that specific dataset.

The OnTheMap tool as well is important to understand that we are looking at the distance and direction analysis that you can conduct within the OnTheMap tool. It is basically as the crow flies. So it's a straight line from one point to the other, and it's not necessarily giving you the route that someone is taking to get from one place to the other. It's just giving you that complete distance.

Also in the OnTheMap tool, you only have the two-digit NAICS and - whereas in the QWI, the Quarterly Workforce Indicator tool, does have data for the two-digit, three-digit, and four-digit NAICS Codes. And then for JobsToJobs tool, they may be looking at adding a three digit NAICS. Currently it's also only the two-digit NAICS in that specific tool.

So now what are NAICS? So if you're not familiar with the NAICS, I always like to make sure people have a good understand of what the NAICS Codes are, the North American Industry Classification System which was launched in 1997 as part of NAFTA.

These Codes are hierarchical and which are updated every five years in years that end in two and seven, which coincides with our quinquennial census. So everybody knows about our decennial, our big 10 years.

We also have a five-year, if you weren't familiar with that terminology. It is a quinquennial census that occurs every five years, our Economic Census.

So these NAICS Codes get updated every five years because, basically, you have industries that emerge in that five-year time period, and you have industries that disappear in that five-year time period.

But the industries are given a two-digit NAICS Code. The names for the main sector, those are pretty much established as those two-digit codes are. Within that two-digit sector then you get into the sub-sectors for the three-digit, the four-digit, the five-digit, and six-digit, the longest being the more detailed of that specific sector, the more detailed industry. So it is hierarchical.

And also, at the two-digit NAICS Code, you'll find that you can get a lot more data and lower geographies than you would with those detailed industries. There's always going to be a trade-off. The more detailed industry, probably less data at lower geographies.

If you want more information as far as NAICS is concerned, you can go to one of our most popular and most visited pages on census.gov which, in fact, is the NAICS website that we have. There's census.gov. There's the new 2017 NAICS manual there that has all the updated codes.

We have a keyword search. I will also tell you that if you're using the keyword search, keep in mind that it is very finicky. If you put in toy versus toys if you want to look up information or NAICS Codes on a toyshop, for example, you're going to find that you're going to get a much different list of NAICS Codes, a much longer list if you go with the singular versus the plural. So I would avoid the plurals in that if you wanted to look up an industry by using a keyword search.

Now getting into Geography, which is the framework of our data. The reason why this is important when you're looking at our data tools - it's not so important when you're looking at the QWI because we understand, most people understand the nation and the states and the counties. However, when you're looking at the OnTheMap Tool, this specific tool actually allows you to look at some various really important statistical areas that we have.

Some of the key Geographies I'm going to point out here are going to be the Census Tracts, the Zip Code Tabulation Areas, and the Block Groups, as well as the Census Block. So what you're looking at on your screen now - you should be able to see, which is basically a collection of Census Tracts in the Dallas-Forth Worth, or the Fort Worth area I should say.

And, basically, tracts are subdivisions of counties that consist of population size and housing units. And for the tracts it's going to be 1200 to 3200 - I'm sorry, 1200 to 8000 population size. And these are relatively permanent, and relatively permanent meaning that they will not change between the Decennial censuses. It's very rare for that to happen.

But they would change possibly at the time of the decennial census once every 10 years if the population within that tract exceeded the threshold of 8000. So that this tract - you can see these tracts, these collections of tracts, will have these sort of different numbers and if the tract does in fact get split, the framework of the tract wouldn't, in fact, change. But within the tract, those numbers would. And I'll show you an example of that in the next slide.

Below the tract level you also have Block Groups. And Block Groups are another geography below the tract level, the subdivision of a tract. And then the lowest level of geography that we have is the Census Block.

Now for the Block Group, that is also based on population size and housing units which I'll also show you here in the next couple of slides. And then for the Block that's not based on population size, and only for other purposes you would find decennial other tools, you would only be able to get decennial census data for.

So you can. But the beauty of the LEHD tools that we can get a lot of this other great data characteristics at the Block level.

So when you're looking at how it all fits together, you're looking at a Census Block not based on population size. That does attach to you a Block Group which is based on population size of 603,000. Then you have that Block Route which attaches to a Census Tract. That Tract is a geography that is again based on population size and housing units. And the framework of which will not change regardless of how much that tract changes within.

So if that Tract 107 was to get an increase of population, it can get split. That number 107 would go away and it would become 107.01 and 107.02. If in the next 10 years, let's say, that tract got even more population, that tract would get split again. 107.01 and 107.02 would disappear, and you would have it start all off with 107.03 and 4 and 5, depending on how many times it had to gets split.

So that's something that we always, you know, try to make sure that we do not address the framework of the original tract regardless of how many times it has to get split. You also have that tract that is set within the framework of the county.

So the block attaches to the block - attaches to other blocks to form a Block Group. The Block Group combines with other Block Groups to form the tract. And the tract combines with all other tracts to form your county. And they are based on physical boundaries as much as possible.

So where ou can see just giving you an idea as to those tracts and making sure you understand that it is 1,200 to 8,000 for those tracts in terms of population size. 600 to 3,000 for groups. And the reason I point that out is because at the - for the OnTheMap Tool, again, you can get this data down to the Census Block Level which is not based on the population size.

Now getting into the Tools. You can see the first one here, the QWI Explorer, is one of the great tools. This is absolutely one of my favorite tools that we have from the LEHD Program, the LEHD Partnership, because you can look at 32 Quarterly Workforce Indicators. And the data is relatively current. So the currency of the data is pretty good in comparison to what we have with some of the other data tools we have out there from the LEHD Program.

For example, OnTheMap still only have the 2015 data, even though 2016 and '17 will be added later this summer. But within the QWI Explorer, you can always start looking at 2018 Quarter Two data.

So you'll also have some really incredible functionality within that tool where you can download the data. You can export it. You can create a bookmark. You can share it on social media.

There's all different kinds of things you can do, different visualization, if you want to look at a bar chart, a line chart, look at the information, draw a map visualization of it by geography. You can do that.

And then do some other sort of - add some control factors like worker characteristics where you can cross-tabulate the data. We also - this is the OnTheMap tool that we're going to be focusing on today, looking at where workers live and where they work, and being able to actually conduct five different types of analysis on those specific areas. Well, actually, for the fifth one would be the inflow/outflow which is not based - which doesn't have where they live or where they work because it's just looking at the - just the geography as to the inflow of the population and the outflow of the population for both people that live and work in those given areas.

But you can look at the two-digit NAICS Sectors data. You can also look at worker characteristics like age, race, sex, ethnicity. You can look at income levels in different age groups as well. We'll cover all that when we go into the tool itself.

There also the OnTheMap for Emergency Management which is a really great resource for emergency management agencies to go into when a disaster is officially declared. It goes into this tool. It gets populated with American Community Survey data, so they can look at areas that have been declared a disaster, and they can actually look at what those resources, what that area is going to need in terms of resources based on the data, based on the ACS data, the American Community Survey data, which will provide demographics, various socioeconomic characteristics, some of the housing data as well. So it gives them a really good overview of those areas.

You'll also - the LED Extraction Tool. So I mentioned the QWI, the Quarterly Workforce Indicators Tool that does look at those 32 indicators, and provide the different ways that you can visualize the data through the line chart, the bar chart, and the mapping tool as well. The LED Extraction Tool basically allows their users to go and just get the data they're looking for, to say, you know, I don't want to go through any individualization. I just want the data. I want to be able to download it and just have it exactly the way that I want it. So that's what the LED Extraction Tool allows you to do.

Then there's another new tool called the Job-To-Job Explorer I mentioned before which does look at basically filling the gap as to worker reallocation, looks at 40 different measures of that. Six visualization modules looking at, you know, where workers are going to, where they're coming from, and in what industries. So this has a lot of other great functionality. Definitely recommend you check this tool out. We only did it today but I highly recommend that you explore this tool and look at some of the different help and tutorial options that are out there.

Then there's another great new tool called the Post-Secondary Employment Outcomes, and this is looking at the university data that is provided to us, so on post-graduation. And we've got - currently we have data from the University of Colorado, in Michigan, Texas, and Wisconsin. So we are very excited about this tool and the data that we're producing, and making it available 24/7, like all the rest of the tools, to the public for free.

When you're choosing among these various different datasets, these products, you can see that I - you know, for the QWI you can't get to those low-level geographies, but you're going to have more current data. And you're going to have a little bit more detail in terms of industry data because you can look at not just the two-digit NAICS code as you are - to a limited width in the OnTheMap tool. You can look at every, you know, two-digit, three-digit, and four-digit.

So it's just - it's important to keep in mind these sort of potential job actions, what you want to look at. And then as far as our API, we currently have API available for the QWI Explorer, so we do have those quarterly workforce indicators, that API is available. It's free to the public.

You can - developers can go into any of our APIs. We have 20- plus APIs out there that you can go in and you can actually access 24/7. You don't need to request a key unless you plan on making over 400 calls of our API. But if you want to, it's there, it's yours, it's available, it's free.

If you download it, request a key for the access to make a column in that API. It's yours. But it doesn't expire. There is future development for the API and the OnTheMap, the OnTheMap for Emergency Management, the Job-To-Job and the Post-Secondary Outcomes.

And then there are some great video walkthroughs, some analysis guides, and other sort of tutorials that are available. So I always make sure that I link those for you on the presentation that you can get to.

And you know, again, the main takeaway here is that, you know, these - this is the data that we have available through the LEHD and the LED Partnership are really incredibly useful and provide a vast amount of data that covers sort of a lot of various different aspects of jobs, firms, and worker characteristics combined together.

So it's really giving you this great longitudinal data that great insight into various economies and labor markets, down to some very low-level geographies when you're looking at that lowest level that we have available, which is that Census Block. And, of course, it's free. These tools are available 24/7. They're free to the public. And the data that we have and that we're getting comes at a relatively low cost.

So I want to also make sure that you guys all stay current, so we do have a newsroom. We have a Director's Blog. We also have a great American Counts store. We have Stats for Stores. I highly recommend that you - you can subscribe to any of these through our website even though this is described to a specific topic. So if you're only interested in LEHD Updates, you can actually subscribe on the various topic of employment and you'll get updates on those specific topics. You can subscribe to any of these as well.

So some of these stories, like America Counts and Stats for Stories will come with their very own visualization tools embedded into the stories themselves so you get a lot of great data on and great data tools specifically for these articles that, of course, are going to use Census data.

We also have social media platforms out there that you can subscribe, like, tag all the great stuff. And we have a lot of videos on our YouTube channel that I recommend checking out as well.

Then you can also interact with us through our social media platforms. We produce a lot of different visualizations that we release through our social medial platforms.

And there's a brand new Census Academy, which has launched officially yesterday. And with that we've got courses, we've got data gems, we've got the webinars like this one out there. We're going to be putting more webinars, following this year's which ends at the end of June. We'll have more webinars coming, more courses coming, more data gems coming. So we definitely would love you to subscribe to the Census Academy website to stay up to date on all the news and releases that we have coming from this new portal.

And that is my contact information as well as the LEHD, one of the LEHD Program Analysts, Earlene Dowell. Really enjoyed this today. But we have Heath, so I'll make sure I have his contact information as well.

You can reach out to either Earlene or Heath for any technical questions or assistance with the, you know, the LEHD Program or any of the tools. All you need is real technical questions that you may have. And, of course, if you have any requests for data training, whether it's in-person or via webinar, you just have any data questions that you want answered, you can always reach out to me via email or phone. And if you reside in - outside of those six states I mentioned earlier - Hawaii, Nevada, Arizona, Utah, New Mexico, and Dallas- Fort Worth MSA, you can use that 844-ASK-DATA toll-free number, and the census.askdata, it's just like a email, to request free training and get support as well.

Okay. So with that, what I'm going to do is we're going to go online. But before we do that, I'm going to go ahead and open up the lines for any questions and hope that you all - we won't have a lot of background noise. Hear that?

The conference is now in talk mode.

Eric Coyle: Excellent. I hear silence which is great. You guys all muted your lines for me. I appreciate that. But does anybody have any questions? No questions. I have a quiet audience today.

Hi, I have a question.

Eric Coyle: Okay. Yes, please.

My name is (Olivia). I work at the Virginia Department of Transportation. I use OnTheMap very regularly to look at commuting patterns. And I was wondering if there was another means of figuring out where military workers live or the kind of just the not really an option.

Eric Coyle: Hmm. Well with OnTheMap we don't actually have the military, because that was one of those caveats I pointed out earlier. We don't have - the military data is not in there as far as looking at the military, like those employees that are military. So other than - or are you referencing like areas - you know there's a military base somewhere. Are you just looking at other employment that's there?

The first. So if it's just not in there, I guess there's not a better option than just kind of make assumptions.

Eric Coyle: Yeah. I don't know. Not to my knowledge unless - Heath, did you want to weigh in on that?

Heath Hayward: Yeah, I don't know where we would find a good source for military residences and employment locations. That's something that we've been working on, but just getting a source for that data has been difficult.

Eric Coyle: Thank you. Heath. The only thing I - I mean, you can look at I believe, and if you want, you can maybe send me an email afterwards and I can see if I can try to look at some

of the other data by occupation from the American Community Survey. I know that there might be a way looking at it through DataFerrett that - that's how, I think, through the current population survey and they have some military data in there as far as by geography. But it wouldn't be - I don't know. If you're looking specifically for, you know, employment for active, that might be difficult to look at other than following the Current Population Survey which has very limited geographies in terms of you can't really get down to low-level geographies with the Current Population Survey. You'd be basically looking at state level.

Right. Absolutely. I guess I'm just being spoiled by everything else on the maps, and I just want more [laughter], but that is good to know. Thank you very much.

Eric Coyle: Absolutely. No, I don't blame you. Yes, there is a lot of data. It's a lot of great data. But, you know, it's hard to get everything, right? All right. Do we have any other questions? No? Okay. If you do have any other questions, feel free to use the chat feature. I'll let Health monitor that while I jump online and show you guys how to use OnTheMap. I'm going to go ahead and mute the lines right back.

The conference is now in silent mode.

Eric Coyle: And let me go ahead and share my desktop. Okay. So hopefully everybody should be able to see my desktop. Let me know if you have any issues with the view, just let me know in the chat, and I'll try to make an adjustment.

So you may have noticed, those of you that haven't been to census.gov in a little while. You may have noticed it's gotten a refresh. It has this brand new big and beautiful search box which I love, and it's sort of a small - or maybe a big wish, depending on how you look at it.

But I've been having a - it used to be this little tiny box in the right corner at the top, and I would always recommend people would go to our website and do their searches for data in census.gov versus going to where everybody normally goes which is Google. Now Google may be great to figure out the distance from the Earth to the Moon, but it's not always going to get you census data specifically the same way that it would, let's say, if you go through our own website.

So now we've got this great new search box here. And you can come in and type in your queries and you're definitely going to get more information than you would more likely than from - than Google.

Now with that being said, the LEHD website itself, the main page, is a little bit more complicated to get to because now instead of where you used to be able to go by topic and then get it specifically under employment, you actually would probably get it faster by going into Explore Data and then looking at the full list of Data Tools and Apps and then toggling until you get to LED or that's how it's listed, LED, Local Employment Dynamics Program.

So, as I just said, Google's not a great place for a Census data; however, if we go to Google and type in LEHD, we're going to see that come right up as the first hit there. And there's your website.

So I still like to get people to go to our census.gov website. So if you want to go to the OnTheMap Tool, you could get there by going from Browse by Topic, then ticking on Employment, and then you can go ahead and scroll down. And you'll find under the Data Heading, you'll find our QWI Explorer link there, OnTheMap, and OnTheMap for Emergency Management.

You can view all data to get to other data tools as well. So I'm going to stick to our census.gov portal here and get us to OnTheMap. One important note to make, and I should probably put this in the presentation, is that you need to use either Firefox, Chrome, or Safari, or Edge, I believe, would work.

Internet Explorer will not give you the mapping feature that you're seeing here on the screen, so this visualization of the map that I can move around and I can zoom in that way as a means for selecting my geography, you will not see this map, and this feature will not exist in Internet Explorer. You have to use either one of the other browsers - Firefox, Chrome, or Safari.

So I often tell people, when you're getting into our web tool like for OnTheMap, you've got some - already got a lot of really interesting functionality that you've got, where you can go into your base map tab and you can immediately start looking at some different layers. You can clear all the layers. And you'd also have other things that you can label and outline such as green space here. You can check for military bases. It's better if you zoom in further. It will actually give you the ability to look at these various geographies.

So that's your base map in-between the Start tab and your Selections tab. So in the Start tab, you can immediately - as soon as you type in a geography, and since we - I showcase Forth Worth in terms of the tracks. I'll go ahead and type that in.

And if I type in Forth Worth, Texas, or just Forth Worth, and I hit Search, I'm going to get a list of geographies here. So it's going to give me the places which is the term we use to identify cities and towns including Census Designated Places which - if you're not familiar with CDPs.

They're essentially unincorporated areas that are identified as CDPs and they're basically cities and towns with no legal function and are identified as CDPs in cooperation with the state and local governments and the Census Bureau.

Then you have your incorporated cities, of course. So places is a term we use for that. You'll see that term in a lot of our different data tools that we have out there. So there you'll see Fort Worth City where I can click on.

If I scroll further down I have some Census County, Census County Division, County Subdivision. There's that Dallas-Forth Worth, Arlington, Texas, as far as the metropolitan, micropolitan areas, independent school districts, some other geographies. You've got schools here.

If I click on any one of these geographies, it's going to give me an outline of these areas. And then I can go ahead and perform, instantly perform an analysis. So if I click on the Fort

Worth City, it's going to take me right there where I - see my little red kit over there? And I can then go ahead and perform an analysis on my selected area.

Now if I want to get an outline of this area and see exactly what it looks like, I can go into my Selection Tab here, and there's my outline. So I can zoom further in and I can confirm my selection. I can confirm and add my selection in other various ways that I can select through drawing my own polygon or drawing line drawing points, or I can clear it altogether. And that's in your Selection Tab.

So if I go back to my Start Tab here, I scroll further down. You'll notice that you also have the ability to import your own geographies as well. So if you want to do that, I would recommend that before you make any selection on geography, if you want to import your ShapeFile you would want to go ahead and do that first before going ahead and making any sort of selections, and that just makes the process easier.

Getting back to our - clicking on this red kite, you can go ahead and perform an analysis on the selection areas. So when I click there I'm going to see - I have now the default which is set to Work, and I can change that if I want to look at where employees live or go back to looking at where employees work.

So I can then either decide do I want to look at an area profile, do I want to make a comparison, do I want to look at distance and direction, do I want to look at destination or inflow/outflow, and as I mentioned before, this is looking - it is a - home/work choice does not affect the results. It would be the same results regardless of which one you select here for the inflow/outflow analysis.

It is important that if you want to look at data over time, and you want to compare the data over time, you definitely want to check more than one box. That is the default that was selected. And we do have that 2016/'17 data is coming later this year, so we're excited to be able to let everybody know about that. So here I'm going to just check 2010. I can go all the way back to 2002 if I wanted so.

And then here I can look at the job type where I can select All Jobs, Primary Jobs, All Private Jobs, all Private Primary Jobs. Now if you're curious as to what these mean, what's the definition of a primary or a private job, all you have to do is simply hover over this question mark, and it's going to tell you. All jobs are all public and private sector jobs. Your primary jobs are public and private sector jobs. One job per worker.

Keep in mind when we're looking - when that 2016 and '17 data does come into this tool, you know that you're going to be looking at that private jobs. You're not going to get any data for the public sector jobs for those particular datasets. And you also have a definition for the private jobs and the private primary jobs.

So here we can just go ahead and keep the primary jobs. And then we can click Go. And as soon as we do that, we're going to see this area profile. And what's great is you're looking at all this amazing data that you can actually select to really isolate that particular topic.

So if you just want to look at those employees that are age 29 and younger within this boundary that we've selected, the Fort Worth City, you can go ahead and select age 29 or younger, and your map will immediately change. I can reset my table.

And once I reset my table, it's going to give me all the jobs, all sectors, all different characteristics, all different types of educational attainment, worker sex, different - all the industries that we have, two-digit NAICS Sectors, all the different earnings categories, all the different age groups. So you're getting that full total count. And that is all the jobs in that area.

And here in that visual that you have with the bar chart, you can actually go in and change this to a pie chart as well if you'd prefer to look at it that way.

These windows that you're looking at here with the actual chart in Report Data area, you can actually slide this over. Or if you want to, you can go ahead and hide that completely. So if I click up here where it says Hide Chart or Report, I can hide that chart, and it goes away. If I want to bring it back, I simply click Show Chart and Report. It comes right back. And I can slide that back over if I want.

Do the same thing with the other side here in your Results Tab. And you can see here, it's giving me that Work Area Profile Analysis. Now what's great is, you can change this title. And you can even add a subtitle. I can change this to basically have whatever I want - Fort Worth Profile Analysis. Or I can keep that name title and write in Fort Worth City underneath. So it does give you that flexibility there.

You'll also notice that we're looking at the 2015, which was the default. And all I really did with that analysis that was already defaulted was I checked those boxes to add additional years that I could make a comparison with. And the reason why that's really important to do is not just to compare the data over time. We get '14 and '13, to look at '12, to look at '10. But you'll also be able to animate the data over time which you can do.

But before I get to that I want to show you some of the other key features like a color key here which you can adjust the color if you're really not into purple. You can change it to any of the colors you see listed here.

You can also, instead of looking at both the thermal and the point overlay as it's displayed here, you can actually click on that box and that thermal overlay will disappear. You'll be left with just a point overlay. If I click back on that - if I uncheck both, I get nothing, right? I saw this data here to my right, but I'm not seeing either the point or the thermal.

If I bring back my thermal, I check the box. And now I just see the concentration. I can really see the concentration of jobs where workers work by that thermal overlay. Move that and I get back to my points. And now I can actually see the jobs by - at the block level.

And the reason why I say at the block level's because each one of these points represents a census block. And if you scroll down here in your Results Tab, you'll see exactly when the smallest point represents one to 25 jobs. The largest is 6000-plus to 15,000-plus jobs.

So you can see you've got a lot of jobs in this specific area here. And if I want to go ahead and find out what specific block that is, all I have to do is click on my Identify Button . This little window always pops up. You don't have to wait for this countdown. Simply close that window and your little question mark appears. And when your little question mark appears next to your arrow, you can click on that dot and it's going to tell you - because we're so zoomed out it's selecting all those other dots as well. But you can pretty much see that. This is the block and that's the exact number within that block.

So if I zoom in a little further - And the good thing is, once you click Identify the first time and close that 20-second window, you come back over here, click Identify again. You don't see that window pop right back up. And now I'm zoomed in where that big purple dot is, and now I just get back to singular blocks with that data right here. Okay?

And, again, each one of these dots represents a Census Block, and the smaller the dot the less jobs; larger, more jobs in there. So you clear the overlays if you want to do that as well.

And I'm going to go and now zoom out. There we go. And I'm going to go ahead and uncheck the box with point overlay and select Thermal. And the reason why I like looking at the thermal a little more than the point is when I animate the overlays I can see the change over time a little clearly, a little bit more clearly than I would with just the point overlay.

So here we just went back five years. I could go back to my analysis. I can reset my settings and say, you know what? Give me all the years from 2002 to 2015. But I can see just how much these areas of employment change.

So that's that animation overlay. And, of course, it wouldn't be much good to anybody if you couldn't actually download or export the data, print the chart or maps. Of course those options are available if you click on down Detailed Report. You can export as a PDF, so your Excel or as HTML. You'll see because we checked those five years, we get five years of data, giving us the total primary jobs, the jobs by worker age, jobs by earnings, jobs by NAICS Sector. You also have jobs by worker race, worker ethnicity, educational attainment, worker sex, and then down at the bottom you'll have your settings which is basically looking at the source and sort of your legend the specific data in your report.

Had I adjusted my title, where I have the option of adding a subtitle, that's what you would see here when you exported to PDF or Excel or HTML. You can also export the geography. So you can download as a ShapeFile or as a CSV or a KML file as well. So you can export the geography itself and you can also print and download as a PDF or a collection of images as well.

So lots of great functionality. The Analysis Settings here - if you click this little arrow, you'll see that where it says Analysis Settings now, I'm looking at the same information I had in my detailed report.

And if I want to change my settings and add more years, I just go ahead and click here where it says Change Settings. That will allow me to check more years or change my analysis. I've done my Area Profile. I've got the data that I need. I've downloaded the

detailed report. Maybe I want to do the Area Comparison, do just the direction, destination, inflow or outflow. Okay.

You can also click on your icon there and when you do that it's going to give you also the ability to go ahead and change selected area, and advanced selection, perform analysis which should pretty much be more of the advanced features. What I will do is go ahead and change the type of analysis to look at distance and direction because there's some other things I want to show you. And then use the time. I want to make sure that I still have some time for any questions that may be out there. So I'm going to jump right into the next - not the next analysis, but the distance and direction.

If you want to know what each of these types of analysis can do, all you have to do is hover over that question mark like I did with the job types, and you're going to see that the area profile analysis is going to tell you exactly what it does. And so is the area of comparison, distance, direction, and also the destination analysis.

So we're looking at direct distance and direction analysis is looking at the distance and direction total between residence and employment locations for where employer is, workers employed are living in the selection area.

So here if we go ahead and do distance and direction and click Go - - you'll see that now we have a radar chart. And showing us sort of where workers are going from Work to Home Census Block. So Work Census Block to Home Census Block. Jobs by distance. And you can see that most of which we'll find that less than 10 miles, 10 to 24 miles, and 25 to 50 miles, or greater than 50 miles.

You can also see where they're coming from the most - Northeast, East, and the South. You can then change this to a bar chart as well. And we're back to a radar chart. And over here we're looking at - once again you're looking at your Results Tab. Now you have a new analysis title. You can still add another subtitle or change that title altogether.

And you can look at the various years, of course, using that dropdown menu. We're looking at all Worker Segments. We can change this by selecting these various - these geographies by saying less than 10 miles. I just want to focus on that dataset.

And now it will break that down - North, Northeast, East, Southeast. It's all primary jobs for that specific category. You also have the same type of overlays here that you can look at. And we can look at thermal or point. There's your thermal overlay.

And now we can look at another analysis which is our Destination. So this is looking at the sort of point of - and this is looking at places. So we selected Fort Worth City so from city-to-city essentially. And when I select my analysis here, we can see that it's going to say Fort Worth City. In terms of distance and direction, there's our schematic.

And I'm going to change this to show you a really great feature which is our Spoke Overlay within this tool. This is available just within this type of analysis where it actually gives you that line of sight to show you that point from - point- to- point of where people - where most jobs are coming from in terms of the home destination analysis. So where workers live to where they work.

Now I'm looking at just the top 10. If I want to increase that, I come over here to my left results, and I make upon - I can click on Top 25. I can see that increases that poke. I can go to 50, and that spoke's going to get even larger.

Now keep in mind that if somebody has headquartered somebody, if I go ahead and say, show me all the results, and you see Hawaii, that doesn't mean that somebody is travelling from Hawaii all the way to Fort Worth every single day. It means that they are headquartered in Hawaii and that they're - their job would be in Fort Worth. Or they could be - I'm sorry, headquartered in Fort Worth and possibly work in Hawaii, or vice versa, depending on which type of analysis you conduct.

And then the other great analysis is the Inflow/Outflow, and this is regardless of whether you select home or work. You can click on go once you select that type of analysis. And when you do that, you're going to see this really great feature that allows you to look at not just where employees live and those - live and work in an area, but actually those that live outside an area and go to that - go into work in an area, that area we selected. And I can zoom in.

So however you zoom in on the map, that same view that you have here is not going to change in terms of this really great visualization of looking at workers living and working in the same area, which is 125,414, versus those that live outside an area and work within the area, and those that live in an area and work outside the area.

And as I mentioned, you can hide the charts. You can also hide your Results Tabs as well so that you just have a screen. In order to take a screenshot of this, you can do that or download it. It would make that pretty easy to do just by hiding those two different tabs. So I'll bring this back by clicking Show, Hide Chart and Report, and Show my Tabs. And it brings my Start, my Base Map, my Selections Tab and my Results Tab back.

Now the other cool thing you can do is - for all these different types of analysis, I can create a detailed report. And what's great about that - if you're looking at the information you'd see here to the right, you've got a little bit of information related to the inflow/outflow.

But if you want to see that and how it can compare with the other work characteristics, simply click on the detailed report, and now you'll see that Inflow/Outflow reports, and we could have added a subtitle if we wanted in there for the Dallas-Fort Worth City - I'm sorry, Fort Worth City, and then you can see that you've got the various years available for the market size for primary jobs in area labor force, employment efficiency, outflow jobs, by the other characteristics.

So you've got the age groups now. You've got the income. You have different earnings. Industries as well. And inflow job as well, characteristics. So you've got a lot more information in that detailed report for these types of analysis that you can conduct.

I know that's just about - we're just about out of time. I do want to show you one last thing so I'm going to go ahead and click on my Selections Tab here. And what I'd like to do is go ahead and just clear my Selections and I'm going to do that by clicking here where it says Clear Selection. And I'm going to actually delete my - I'm going to x-out my results tab here.

And I'm still in the area that I was sort of focused on before when I had that outline. I'm also going to come here and I'm going to remove my Add Layers selection to No Selected Layer. And then what that allows me to do is I can now actually draw my own area. I can draw a polygon freehand. And you can do lines and points, and there's some other tutorials that are available online to show you how to use these other features. The last thing I'm going to show you is just kind of how create your own.

So we can zoom. Remember, this is at the block level. So if I want to I can come back over here. I can zoom all the way down, then come out a little bit. If I go into my Base Maps Selection, I'm going to see where I can select tracks to highlight those tracks. And identify track.

And then maybe I know there's a track of interest that I want to zoom in on. And I can highlight my block groups if I wanted to do that. And then keep in mind, this is data at the block level, so I can still go further in and I create my own polygon by looking at that selection, draw my polygon here, and now I can just say, this is the area that I'm focused on.

And I know this is going to be pretty small, but I'll still say, this is my selected area. Double-click. Now I can confirm my selection. And once I confirm my selection, it says, okay, this is the area you selected. Perform my analysis. Click on Go. And just as I did with the actual area I selected, now I'm going to get data just for that area.

So it's telling me there's zero people living and working in that area. But there's 35 that live outside and come in, and 26 that live inside and go out. So that's another great feature that we have along with some of the other really cool selection tools that you have here.

So you can delete the selections that you. You can reuse them. They're in there, those previous shapes. And, of course, lots of other functionalities. So with that, we are getting to our time, so what I'm going to do now is go ahead and open up the lines once more for questions.

The conference is now in talk mode.

Eric Coyle: Do we have any other questions before we conclude today?

I have a question regarding the cutoffs for the wages, the 1250 per month OS, 1251 (inaudible) 3333. What's the basis for those selections?

Eric Coyle: You know what? Let's do this. I'm going to put the phone - I'm going to mute the lines because someone's got their -

The conference is now in silent mode.

Eric Coyle: Okay. So if you can, go ahead and press star-six. They'll unmute your line and then you'll be able to ask your question.

Okay. I was curious about the three categories for monthly wages, why those were chosen. And that the one - especially the 1250 one, the 3333 is an awfully wide band on an annual base.

Eric Coyle: That's a great question, and I'm going to let Heath - if you want to - Heath, if you want to hit star-six and unmute your line, that's definitely a subject matter - excellent question.

Okay.

Eric Coyle: Okay.

Thank you.

Heath Hayward: Can you hear me?

Eric Coyle: Yes.

Heath Hayward : Okay. So the - initially the researchers that created those earnings breaks were interested in studying poverty. And so they created those earnings breaks pretty low, even for, yeah, 2000, the year 2000 standards. The issue with updating those is that they are built into the confidentiality production system, so they're really far up in the code, and they're linked to not - you know, if we broke them out into more categories, the sales would get too small.

So it's currently a research project. We do want to provide more breaks and breaks that capture some of the stratification and higher earning cohorts. So that's the reason why those are there. You now, frustratingly it's been pretty difficult to try to update that. But it is something that's it's on our plate to work on.

Eric Coyle: Thank you, Heath.

Hi.

Eric Coyle: Hopefully that answers your question.

Yes. I have a couple of additional questions. This is (Kim Kaski).

Eric Coyle: Yes.

Can you hear me? Okay.

Eric Coyle: Yes.

First, just in response to that, I have been studying workforce housing relative to tax credits and service industry job - more tourism area. And so breaks that corresponded to those federal numbers that are predetermined, like 60/80/100 percent of median would be very helpful, just as a comment.

But the real point of my question is I ran our area and I did the home destination analysis with spokes. That's a cool feature. I love it.

But what I see is National Davidson in metropolitan government, and then the word "balance." So is that telling me that anybody that wasn't in those lists that lived elsewhere, they just threw into National Davidson because that's the capitol, or that they picked that because it was more close to the center of the state? How did that come to be?

Heath Hayward : So you're asking about the word "balance" being in the name for the Metro Area?

Well, National - I can't believe we got 355 people all commuting 300 miles to Davidson County. We're on the eastern side of the state of Tennessee. The fact that it says "balance" makes me question whether anything that wasn't in one of the primary locations was getting thrown into that location.

Heath Hayward: Yeah. So I think that the balance is just a Census geography name in cases where there's some parts of the - I think it's some parts of the county that are sort of cut out. You notice it at, I believe in Indianapolis Metro area as well.

So I don't think it's the name is related to that. I think that probably what you're seeing are cases of either headquartering issues for those workers that -

Okay.

Heath Hayward: - seem like they're unreasonable commutes.

Okay.

Heath Hayward: Or it could be a, you know, a case of, you know - one of the things we're dealing with is the increase of telework as an option, which sort of, you know, makes using these data for commuting analysis even, you know, more difficult, so.

Okay.

Heath Hayward: I think that's part of (inaudible).

All right. Okay, thank you.

Eric Coyle: Okay, thank you. Thanks, Heath. I appreciate that. Is there any other questions? You can unmute your line. We probably have just enough time for one more since we're already past our timeframe, but I'll try and take one last question, because someone else did have one question out there. You can hit star-six to unmute your line, otherwise we can go ahead and conclude.

And then if you have any additional questions, you can definitely reach out to myself or Heath or Earlene for those technical questions. For additional training on any of the tools, you can feel free to reach out as well. And, like I said, you will receive a copy of the presentation with our contact information on there, and please be patient for the recording which will eventually be posted onto the Census Academy website.

So it doesn't sound like we have any other questions. No? Okay. So thank you all again for your time today. I really appreciate you joining us for this webinar. And we look forward to having you on many other webinars in the future. Thanks again to Heath, and everybody take care.

Heath Hayward: Thanks, Eric.