Kelly Karres: Welcome to Census Data Made Easy Tool Tour Part 1. Thanks for joining me. We're going to go through a quick PowerPoint presentation and then we're going to get online.

Today I'm going to highlight tools from census.gov that make census data easy. No tricky functionality, no sophisticated census data knowledge needed. Most importantly, no searching hours for a single piece of census data. I want to keep it simple and show you some easy to access tools available to you free of cost on census.gov.

The tools I'm gonna show you today in the online demonstration are the Population Clock which provide both national and international statistics at high level. QuickFacts, frequently requested statistics of the national, state, county, and city level.

Census Flows Mapper which is a simple interface to the county to county migrations flows, you can also view characteristics of movers. And finally My Congressional District and as the name suggests, it allows you to look at data by congressional district on population and characteristic data such as income, education, and economic data, as well. To the right is a map that was rendered using Census Flows Mapper and it shows the total net migration flows for Maricopa County Arizona, the county with the highest numerical increase from 2017 to 2018. The Census Bureau is your key data resource for areas large and small. You have the ability to look at data not only for the nation for state, for county, but also for cities and towns, and even smaller areas such as census tracts. This can be extremely useful in your research and broader scope of what census data can help you accomplish. With that I'm gonna go online to census.gov, www.census.gov. I am going to make this a full screen for you here.

The first tool we're going to look at is the Population Clock. It's right here on the main page. To the right of the main newsroom area, where they feature the most recently released information. And here we see that counties in Texas take four out of the top ten spots in terms of counties in growth from 2017 to 2018 and that comes from the Population Estimates Program. Let me go ahead and click on Population Clock.

In here, immediately, you see that this clock is running. This clock is going. And it is showing how our population is changing not only in the United States but also in the world. It provides information on how the clock is changing, which are the components of population change. Births, deaths, international migration, and the net gain. And that is what we see on the clock above. The United States, with its projected population this year, July 1st, is 331 million. And it ranks third in the world in population behind India and China.

We're going to explore some of the statewide, the United States data first. And then we will explore data for other countries. I'm going to scroll down a little bit. Here we're allowed to click on the date and select any date back to April 1, 2010 to get the population on that particular date. April 1, 2010, this is the population as of the 2010 census, it was 308 million. We've gained 20 million people since the 2010 census. We will be conducting a 2020 Census next spring. So be aware of that. And in addition to conducting a census once a decade, the Census Bureau is very busy working on programs and surveys throughout the
decade to continually update our geographic areas, find - release updated estimates and projections on a variety of topics. And the data is available for public consumption here on census.gov.

Let me go ahead and go back to April 23 and we see that 328 million. Here is a line graph, United States population growth by region. So the regions are northeast, midwest, west, and south. This is from 2010 to 2018 and if we go through the years, we see some change. But where do we see the largest change? To the west and the south. The northeast and the midwest remain relatively constant in terms of population and their share of the population, which you see on the right in the percentage. The south has gained 10 million people from 2010 to 2018.

Okay, now let's take a look at the population pyramid here. This is an interactive population pyramid. And I think a really good demonstration of how the interactive pyramid works is to look at the baby boom generation and how they have grown over that time period. In 2010, all the baby boomers were 64. And just be aware, that little area right above 60 and let’s watch that, and that cohort which has been almost 20 years, let’s watch it grow in 2010 to 2017. Okay, going on to the bottom.

The last thing that the Population Clock shares for the United States is information on the most populous and highest density state, counties, and cities. For state, we’ve got California. Behind that is Texas. California’s got 35, rather, 39 million and a half plus in population. Counties, Los Angeles county, over 10 million. And behind that, Cook County, Illinois. Where Chicago is based, where Chicago’s at. And that’s at 5 million. So there’s a big difference between the number one and the number two, about 5 million. And cities. New York City, New York, over 8.5 million.

We take a look at density. Population per square mile. We see the District of Columbia ranked first. With 11,490.1, population per square mile. And behind that is New Jersey.

In terms of counties, New York, New York, highest density. Followed by Kings County, New York. In cities, Guttenberg Town, New Jersey, which is right over the Hudson River from New York City, is the most dense city in the United States. If you’re interested in population projections, data for the United States from the Census Bureau, you just have to scroll down to the bottom of the Population Clock and you’ll see right here, populations projection, and you can click on that. We’re looking at information on the population projection as well as some guidance for data users and technical documentation.

Let me go back to the pyramid. Scroll up and out, it’s time to look at some international data. You click on the world up top. And at this point we can select our counties from the drop down menu. The map is rendering. We can select our counties here, country, rather. Or we can select it by clicking on the map.

Let’s take a look at data for Canada, our neighbors to the north. And all we have to do is click on it and from here, we get quite a bit of information. We get basic facts such as the population, the sex ratio, populations per square mile, we’ve got four. The population per square mile here is four, if you look at right below this, it’s comparison. So we can compare that four to the United States. Which is 36.3. So it’s a much less densely populated country.
And there’s information on the value of exports and imports. And change in exports, and they've seen a 46 percent increase in exports from 2009 to 2018. There’s some further information here on trade in the light, the lighter blue. It’s imports on this line graph and this darker color is exports. You can look at the trend line in value from 2009 to 2018. We often receive that the current population, which we saw above in basic facts in a population projection. In 2050, the population in Canada is projected to be 41.1 million so they are projected to see growth. This population pyramid has a slightly different shape than the one in the United States. And when we look at another country you'll see the same. They all have their own flavor. And scroll back up. For this example, let’s take a look at Jamaica.

Let’s check out the statistics for that country. Population’s 2.8 million. The population per square mile here is 260. So compared to the United States and Canada, it is a much more densely populated country. And scroll down. Here we do get data for the top exported goods by the United States per territory. We see that they are receiving petroleum and coal products from Louisiana. The same in Texas, computer equipment and some communications equipment from Florida. This population, the population in Jamaica, is expected to decline over the same period. So from 2018, 2.8 million, to 2.3 million in 2050. If you look at the population pyramid here, this one is quite different from the others we've seen. It’s almost a bell shape. Which is telling us that a much larger share of the population is younger, these ranges, let’s demonstrate it here.

Up next, we’re going to look at QuickFacts, which is one of my favorite tools. I’m going to click on the Census Bureau logo up top. Which will take us back to the main page. And QuickFacts to the also conveniently located on the main page, right in the middle. Below the new section. Okay, QuickFacts, the default for QuickFacts is the United States is a geographic area. And this table format, a table view, but I’d like to bring your attention to up top here. We have other ways to view the data. In addition to a table view, there’s a map view. A chart view. And a dashboard, which combines all three into one.

QuickFacts is a wonderful resource and a great place to start your research. As long as you’re looking at data for areas, cities, towns, populations above 5,000. So just be aware of that population threshold. I’m going to use some of the most populous counties from the Population Clock to include here in our QuickFacts demo. Include Harris County, Texas. Los Angeles county. And you can enter up to six geographic areas that will render here on the table. Maricopa County. That’s where Arizona is, Phoenix, rather, is located. Phoenix is in Maricopa County if you’re not familiar with that. And also Cook County. Illinois. Here we’ve got five geographic areas, if we wanted to add another one, we certainly could. And it would show up here in our table.

So what are we looking at? QuickFacts is a wonderful mismatch of data sources and information. So you’re getting data from multiple census surveys and programs. And most census tables, the information comes from just one program. So just the Population Estimates Program or perhaps our largest survey, the American Community Survey. You may be looking at a table of American Community Survey data. Or County Business Patterns data. But here you’re looking at data for probably at least ten different data sources. So it’s combining some really valuable, useful, frequently requested data in one place.
And up top, you can see that population is listed here. People data, we have people in business. Population, get a quick population estimate, the most recent estimate as of July 1, 2018. You also get the population from the 2010 census. And a handy population percent change. Which is something we don’t usually offer in our tables. You have to calculate it yourself. So here we see the Maricopa County, the population percent change is 59.5, much higher than Los Angeles, Cook County, which has experienced a little bit of a population decline over that eight year period. And the United States, the national average is a 6 percent growth. We have data on age and sex. And there’s a triangle with an exclamation point in it just to let you know that there are different sources of age data, race data, as well. From the Census Bureau and depending on what you’re using the information for, and at what geographic level you’re looking at, the recommended source of data from the Census Bureau may change. If you have questions, you can feel free to contact us at any time and I’ll provide you with our call in number at the end of the training.

Population characteristics such as veterans, the foreign born percent, so Cook County, we’ve got about 21 percent foreign born. Los Angeles, 34.4 percent. United States average is 13, almost 13.5 percent. Let’s scroll down a little bit more. You can get a feel for the variety of information. Families and living arrangements. One of our new questions is on computer and internet use, or new topic areas, rather, that we ask about the household computer. Whether or not they have broadband. Educational attainment, health, disability status, health insurance. So you see some different numbers here. When we look at the counties in terms of population without health insurance. The percentage is quite high in here. County at 22 percent.

And one thing I wanted to point out here is the language, other than English spoken at home. In Los Angeles County over half of the households speak a language other than English at home. And that’s presented as quite high in here. County Texas as well, 33.7 percent. The national average is a little over 21 percent. Okay? And I’m just going to scroll down so you can get a feel for what else is available. Commuting time, income and poverty, which is probably the most frequently requested statistic. Information on businesses in terms of employer establishments and minority owned firms. So you get a little bit of everything here. If you’re looking for your FIPS code, land area in square miles, and that population square mile, that tells us the population density.

Okay, I’m going to scroll up now. And let’s say we want to look at the data in a different format. Let’s say we’re interested in mapping, mapping language by county. And since we noticed that Los Angeles has such a high percentage, I wonder if other counties have such a high percentage as well. So let’s map by county in California the percentage who speak a language other than English at home. We have to select one of the geographic areas I would like of the United States and would have
gotten a national map with state level data. And any of the counties that I would have
selected would have provided data for that state broken down by county. So you would
have gotten the state level map like we did for California broken down by county.

Next let’s take a look at the chart view. Again, it’s asking me what geographic areas would
you like. And I would like you select the locations here. And then select the locations are the
five locations that we’ve already looked at. Okay, and so we still have that language other
than English spoken at home. But this presents it in a nice bar chart. And I feel like four or
five or six counties, or cities, this is a really great way to get a quick visual comparison for
one particular variable. Okay. It’s a little bit more digestible for people. So this is great, you
can take a screenshot of this and use it in a presentation. Or a report. You also have the
option here, you can download it. Alright, you can share it as well. Embed it, email it.

If you wanted to remove one of the geographic areas, you can. It’s as simple as clicking on
the little x box. This gives us some additional information about the estimates and the data
that are in the table. If you see any value flags where there is not data but there is a letter or
a number. Just scroll down to the bottom and you'll get an explanation of that.

Finally the dashboard. And before I click on that, I could select any fact here. So if you’re
more interested in seeing foreign born, we can change it to that. If we wanted to add in
Charleston County, South Carolina, that would also enter our foreign born bar chart here.
Okay? Now I’m going to click on dashboard. Again, it says what do you want us to show you
data for? What geographic area will we display data? Here, let’s pick something else. Let’s
pick Cook County, Illinois for the dashboard. You get a little bit of everything here. You get
the table, you get the map, if we zoom in a little bit. There you go. And you get the chart.
Now here, it will give you a chart for all of the counties in Illinois. That’s just the default.
And there’s no way you can change that. But if we wanted to say add one of these counties
to our other counties, we could do so just by clicking on this little x box here. And that
actually changed the dashboard. We could go ahead and... You can scroll over. To see the
percentages.

Okay, that’s pretty much it for QuickFacts. If you want to know what’s new or you want to
know what some of the most frequently asked questions, you can do so here in the what’s
new and FAQs area up top. And if you wanted to include just one topic area, let’s say
income and poverty, you could do so here.

Alright, the next tool I want to show you is the Census Flows Mapper. I’m going to go to the
main page. It is not accessible directly through the main page. We need to go to our data
tools page. So how do we get there? You go to explore data. Data tools and apps. Once we
click on data tools and apps it takes us to a long list of data tools. And this is called Census
Flows Mapper. So I’m going to scroll down, I know this is on our first page. Click on Census
Flows Mapper. And so it tells us it’s a web mapping application intended to provide you
with a simple interface to view, save, and print migration flow maps. And once we get here,
we need to go ahead and launch the flows mapper. But before we do this, I just want to
point out, if you want more instruction on the flows mapper, you can watch a video by
clicking right there. And if you want to view the data that's behind the application, you can
look at the county to county migration flows table. And it also has a link to the API.
I'm launching the flows mapper. And once the map renders, in order to get started, to get any data, we need to select a geographic area. So I'm going to start with Charleston County. We're going to look at Maricopa County as well. We'll just start with Charleston. I'm going to zoom in a bit so we can see it better. We need to do a little bit of maneuvering to get it there. This is our legend, we can actually move the legend, so you can move it out because it's in the way. And Charleston County is outlined in red here. What are we looking at? Well the default view is net migration flow, which are inbound flows minus outbound flows. So this is the default view. And those counties in orange represent positive net migration into Charleston County over the given period. The given period here is 2012 to 2015, this tool lags behind a bit. And it's releasing data every other year instead of every year. It's still very useful.

And so the orange represent positive net migration into Charleston County over the given period. These darkest orange counties contributed the highest number of residents in Charleston County. So for example, we click on Lexington County, South Carolina. And the net migration here, the net gain, is 259 residents from Lexington County. So they gained more than they lost. They gained 259 more. It's the same story with any of these other orange, light or dark, counties. Dillon County. They had a net gain of 16 residents from Dillon County. We can look at these residents as annual number of movers between counties for a five year period. So this is the number, this is an annual number.

And these are estimates, they come from the American Community survey, as I mentioned, the largest survey, largest household survey in the United States. Certainly the largest survey that the census conducts. And it provides rich and detailed characteristic information about populations in large and small and all places, [inaudible] and updated estimate each and every year. So the American Community Survey is a very special source of data. And my colleagues, I have a couple of colleagues who will be providing American Community Survey specific webinars next week I believe. One is on May 1st. Understanding the American Community Survey. And there's another one on the 7th. So make note of those and go to census.gov/academy if you would like to sign up for those sessions or any other sessions that we'll be providing.

Okay, so we looked at the positive net migration. Now we can also look at the negative net migration. So these counties here, these are the in proximity, they're adjacent to Charleston County, Berkeley County, and Dorchester County. So for example, Charleston County lost, they had a net loss of 552 people to Dorchester County. And here Charleston had a net loss of 135 people to Berkeley County. So here they lost more than they gained. So we've been looking at the net, which is the default, a lot of users like to look at the inbound flows to get information only on those that are moving in. And of course, we're going to see a high number of movers in those counties that are adjacent to Charleston. I'm going to zoom out a bit. This gives us a feel for some of the other areas in the United States that people may be moving to Charleston from. You see little specks of orange everywhere which I think is fascinating.
Similarly, if we wanted to look at outbound, we could. So this is all those people that we’ve had in Charleston. Where they going? Of course we have a high number of people in the state of South Carolina and in neighboring states. But quite a few other states as well. And it was the same with inbound. Now we’re going to switch gears a little bit. Instead of looking at Charleston County, we want to look at Maricopa County because we know how fast it’s growing. That many people are moving there. And I want to get a feel for the types of, some of the characteristics of movers to this county. So again, we’ve got our county outlined in red. Let’s go ahead and start with net here. We’re looking at outbound. Let’s go with net. As it renders, I want to point out the new county statistics about movers by just clicking on the new county statistics. And any time we can click on another county, and it will start providing data for that county. The county statistics, the data table behind this, the data table for every county in the United States. We export that to CSV to work with that.

And we can look at movers by characteristic. This year, there was not, this is most frequent release, we did not get quick characteristics. But the previous release, 2010 to 2014 ACS, did in fact have some characteristics associated with it. Let’s scroll down. And if we wanted to see how many married couple family households with children... Let’s say inbound, moved into Maricopa County, [inaudible] area. We can select, as it renders, we can select some of the other counties. Surrounding. There’s quite a few families with children, married couples, family households with children, that moved into Maricopa County from other counties in Arizona. From also from southern California. Pacific Northwest area. And really all over the United States.

Let’s go back to 2008 to 2012 and take a look at some other characteristics. These are different, we have employment status, we also have occupation. So if you wanted to see, get a feel for the number of people working construction that has moved to or from Maricopa County, let’s get a feel, click on that. That will render. And again, we can just click on the map. And get the numbers of the people who are working not only in construction but related fields, natural resources, maintenance occupations, these are inbound flows from Maricopa County.

If you have any questions about the variables or if you just want a list of them, we know there are none associated with the most recent release, but the rest are listed here. You have all of those right there. Any frequently asked questions are also here and are actually quite useful because they provide information about the estimates themselves, how migration is calculated, what’s included in the map. And also, I meant to mention this earlier, toggle cities. We can add governor sub cities just to give you a geographic reference.

You can change your color palette. As well. And since we’re just looking at inbound, it’s just one color because we looked at net, we would look at those, [inaudible], we’re doing pink and more in green. Which is a different way to visualize the information.

Alright, now I’m going to go to the last tool. Clicking on the banner. And the last tool is My Congressional District. Which is useful if you would like to see data by congressional district. Again, not accessible from the main page. We need to go to explore data; data, tools, and maps. I believe this one is on the second page. My Congressional District. This information comes from our American Community Survey and also county business
patterns. And the congressional district I decided to use for this demonstration is the district where the University of Virginia is located, the 2019 NCLA basketball team. And because I really don't know anything about the congressional district that that school is located in, I just googled and I got the zip code. And we can type in the zip code here. It's 22904. Click go. And it will take us to this other page, the house lookup. So congress is in the 5th district of Virginia, go back, select our state. You can't just click on it, you actually have to go through this dropdown. It doesn't take long. And then your data pops up. Make this a little bit larger for everyone. Good information on people. If you've worked with the American Community Survey data profiles, available on the American Fact Finder, and so these are, these are pretty similar. They're quite comprehensive. The total population, 727,000. But then it's broken down by quite detailed age groups. We have race. Hispanic or Latino origin, so this is going to be more detailed than what we saw on QuickFacts. More detail. Place of birth and even ancestry. Veteran status we saw some of that earlier disability status. [Inaudible] one year ago.

If we wanted to display the margins of error, we just click on this. And there are margins of error associated with all of the estimates because this is not census data, it's not 100 percent data from every survey data, although we took a very large survey sample, there are still some error associated with the data. And if you would like to see that, just click on display ACS margin of error.

Worker, this is employment information. Employment status. Commuting to work. Occupation. Number of people in different occupations. We've got 63,000 that are in sales, occupations in 60,000 service occupations. Information on industry, what industry do people work in. This is more specific than what we saw on the flows map. So we've got construction work is out here on its own. And about 25,000 people working in construction industry in this district. By far the largest number, over 99,000, work in educational services. No surprise there. Considering the, it is approximate to the college, university. We can click on housing. Now you haven't seen much housing data so far. And this gives a nice little housing profile for the congressional district in terms of occupancy, tenure, which is owner occupied or renter occupied. Information on when the person moved into the unit, the householder, the person filling out the form. And this is from the American Community Survey. The values, this is a self reported value. From the survey respondent, mortgage status, do they have a mortgage or not. How much they're sending each month in selected monthly owner costs. So how, gives you a feel for the cost of living in this congressional district. Well, what people are paying for rent.

I won't go too long, this is socioeconomics, this is where you're going to see a lot of the rich detail data about the population in terms of health insurance coverage, poverty, education, educational attainment, school enrollment, and finally, businesses. This is the first time we're seeing, other than that small amount of business data in QuickFacts, that we're seeing data from some of our economic programs.

Paid employees, and you get the number of paid employees by sector. Payroll by sector. And number of establishments by sector. And this comes from the 2016 county business pattern.
One more thing I’m going to show you before we leave. We go to topics. Let’s go to the main page. Alright. I’m going to go to browse by topic. And here, if we’re interested in knowing does the Census Bureau have data on blank, does the Census Bureau have data on people experiencing disabilities? Disability status. What do we do? Go to browse by topic, subjects A to Z. I think you’re already starting to see some of the topic areas here. And it will take you to a topic page. But let’s stay focused on disabilities. Click on disabilities. And sometimes it will also provide the A to Z will also provide information on topics that we don’t have data on but it will suggest where to go for that data, which is extremely useful.

And disability, we do collect data on disability and primarily through the American Community Survey and also through the Survey of Income and Program Participation. Provides information on the data. And some publications on the topic.

Okay. And I’m going to go back to my PowerPoint briefly. Because I do want to mention Census Academy, which is really the education hub on census.gov. And the Census Academy staff is working hard to retool the whole website and they'll have an official relaunch on May 14. And Census Academy, just to give you a little background. It was created with a high focus on creating visual content for data users. Today, you're just going to learn how to access data through a variety of resources that allow users to learn at their own pace, watch quick tips and tricks videos, like data gems, which are just a couple of minutes long. You see in this, show you a screenshot, what is a census track, making sense of the census geography. And here a colleague of mine does a great job giving you that information in just a couple of minutes. And they have a variety of topics. You can also get information on free live webinars and all you have to do is visit census.gov/academy and you can click on webinar to see those.

And if you have questions that cannot be answered through some of the tools that Census Academy, you’re welcome to reach out and contact us. 1-844-ASK-DATA, or census.askdata@census.gov. And your questions will be routed to your local data dissemination specialist. And they will get back to you in a timely fashion and be able to assist you with any additional data needs.

Alright, I thank you for listening and hope you have a wonderful day.