##### [00:00:00.790] - Speaker 1

Welcome to this Community Viz video tutorial. This tutorial will show you how to use the Common Impact Wizard, an easy to use tool to create a set of indicators for a Community Viz analysis. In previous tutorials, we've covered what an indicator is and how we use them as descriptive measurements that apply to scenarios. Indicators are often displayed with the help of a visual aid, such as a chart. Maps showing attribute information give us additional detail.

##### [00:00:25.490] - Speaker 1

A Common Impact Wizard is a great way to create a set of indicators. The wizard will guide you through the process of creating 15 indicators on a variety of topics. With a few clicks, you can create charts, reports, formulas, indicators, attributes and assumptions to help analyze your scenarios. The Common Impacts Wizard consists of four simple screens. We'll step through them in this tutorial.

##### [00:00:48.030] - Speaker 1

After the wizard runs, we'll look at the results and view the assumptions behind the indicators. We'll change an assumption and see how that affects the indicator. For this example, we'll use our new city center community vis analysis. New City Center is a community of his analysis that is based on a quickly growing city in the western US. In this analysis, we have two growth scenarios for an area that is currently undeveloped.

##### [00:01:11.000] - Speaker 1

We're currently working in the active scenario, which is alternative B. You can see a mix of residential and nonresidential buildings being proposed in orange here and here.

##### [00:01:26.810] - Speaker 1

In this example, I'm interested in seeing what impacts the development might have. Using indicators and charts, you can add the Common Impact Wizard by going to the Scenario 360 Toolbar, going to Tools, and activating the wizard here, or by going to the Scenario 360 Toolbar. Then, to view and adding the Decision Tools toolbar, open the Common Impacts Wizard by pressing this button. In the first green of the wizard, we need to indicate which of the common impacts we'd like to create. If you're unsure, you can always click Next.

##### [00:02:04.190] - Speaker 1

All of the standard impacts are selected by default.

##### [00:02:09.230] - Speaker 1

Notice the instructions ask us to provide a dynamic Buildings layer. This is only partially true. The layer does need to be dynamic, but we don't necessarily have to have buildings. You can run this wizard using another analysis layer, such as parcels or zones. Do you remember how to make a layer dynamic?

##### [00:02:28.310] - Speaker 1

You can do that by going to Data, clicking on the properties of the layer, and clicking Make Dynamic. There are also some special impacts that I can run that will require some additional information. In this case, I'll restrict myself to just the standard impacts. If we have any questions and we can always click on the question mark in the corner to open the Scenario 360 help. In the next screen of the wizard, we need to indicate a dynamic layer and a few attributes.

##### [00:02:58.070] - Speaker 1

If you've already run a build out analysis using Scenario 360, the wizard will detect the building clear that you've created in that previous analysis. This is my case here. However, if I didn't have a dynamic building clear, I could choose another layer here. This is where I might add parcels or zones. Below we need to indicate some building attributes or type in some numbers that will represent dwelling units and commercial floor area, as well as defining the units.

##### [00:03:25.490] - Speaker 1

Because I already have a buildings layer by default, it's already selected the attribute field, dwelling units and another attribute layer called floor area. This will provide the number of dwelling units per building as well as the commercial floor area per building. If I don't have this information as an attribute field, I can always just type in a number. Let's say that the average number of dwelling units per building in my area is one. I could add that here, and the average commercial floor area per building in this region is 5000.

##### [00:03:57.160] - Speaker 1

Could type in these numbers and the wizard will run just fine. But since I have this information, I'll leave the attribute fields with dwelling units and with floor area. This is all you need to run this wizard. Buildings and this associated attribute information are fairly common in planning contacts in the United States and Canada. If you don't have this information but you have land use the companion tool to Common Impacts 360 indicators may work better for you.

##### [00:04:25.920] - Speaker 1

Remember that if we have any questions or need more information, you can always click on the Help button in the lower half left hand corner. Go ahead and click. Next. In this screen, we're presented with the option to review or modify the Common Impacts report that scenario 360 will generate. In this case, we won't modify the settings for the report, so go ahead and click Next.

##### [00:04:50.510] - Speaker 1

In the last screen of the wizard, we see that a set of assumptions and charts will be created once we run the wizard. It also gives us the option to open the assumptions, reports and charts. Once the calculations are finished, we'll leave it with the default settings to start the calculations. Click Finish. When the wizard finishes, your assumptions and charts will appear.

##### [00:05:10.490] - Speaker 1

This decision tool uses formulas and default settings that are intended to serve only as a starting point for further analysis. The assumptions draw mostly from US national averages, and the impacts displayed are not necessarily correct, and they may not pertain to or describe local conditions. If you want to see the reference, just click on the Assumption for more information. Average vehicle trip length comes from the National Household Travel Survey with a publication date of 2009.

##### [00:05:40.550] - Speaker 1

While these references are believed to be reliable, they are provided only for your convenience and may or may not be correct. Any decisions you should make from them should be based on your own research and your own analysis, and not on the results automatically generated by the tool. So if you had a transportation study from your local region that had a published average vehicle trip length. That's different. You could update the assumption.

##### [00:06:02.160] - Speaker 1

I'll show you an example of how to do this in a minute.

##### [00:06:07.590] - Speaker 1

Let's look at the charts.

##### [00:06:11.410] - Speaker 1

Over here on the left side are my charts. I'll pin this down so we can take a look. Scroll down and you can see some of the different types of indicators that have been developed by the wizard. Auto emissions, energy use, jobs, population dwelling units, water use, among others. I bet you're curious how the wizard derives so many indicators from just the buildings layer and a few attributes number of dwelling units per building, and commercial floor area per building.

##### [00:06:38.710] - Speaker 1

We can look at the formulas for the indicators by going to 360 setup, clicking on the indicators window and scrolling down here you can see all of the indicators developed by the Common Impacts Wizard are categorized as such. Let's click on population.

##### [00:07:02.670] - Speaker 1

Here you can see the name, the description, the category, and the units of the indicator values. In the next tab formula, we can look at the formula.

##### [00:07:16.030] - Speaker 1

There's an assumption persons per household multiplied by the sum of the dwelling units. And there's a were clause that simply confirms the built status of the building. I can edit it as if I wanted to by going into the edit formula. If I suspected that the persons per household in this region is different from what the default is, I could change that. For instance, if I went to the US.

##### [00:07:37.740] - Speaker 1

Census website and found that the average number of people per household is higher than what the default is, I could change that and see how it changes the indicator and improve the accuracy of my analysis. Let's do that. Let's cancel out of that, get rid of my indicators and look for the assumption persons per household. Here it is. Let's say that the US.

##### [00:08:01.250] - Speaker 1

Census says that the persons per household is actually closer to 2.8 in this particular region. I could adjust my assumption either by sliding the bar or by using this little arrow and move it up to 2.8.

##### [00:08:18.290] - Speaker 1

I can apply the assumption change and see what happens.

##### [00:08:23.970] - Speaker 1

A quick calculation occurs and I can see already in my population graph that the indicator population has gone up a little bit. Population is also related to the labor force population as well as school children. So you see, those have updated as well.

##### [00:08:45.010] - Speaker 1

You can make changes to the formulas and assumptions, but remember that if you rerun the Common Impacts Wizard, you'll reset all of these to their defaults. To avoid this, you can change the category assignments for the indicators to a new name and they won't be rewritten.

##### [00:09:00.890] - Speaker 1

This should give you a basic idea of how the Common Impacts Wizard is used to quickly and easily see impacts. You've seen how to use the wizard. See the formulas, indicators and assumptions that are important to measuring common impacts. If you're interested in creating more indicators, check out our tutorial videos on the custom Impacts Wizard and the 360 Indicators Wizard. Thank you for watching this Community Viz video Tutorial.

##### [00:09:23.820] - Speaker 1

For more video tutorials and community of his resources, please visit the website.