



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

Chris Fox, Esri: [00:02](#) Esri has prepared a specific solution offering that includes core ArcGIS software as well as map and app templates built for homelessness response workflows. These maps and apps help agencies, service providers and COCs conduct point in time counts, inventory and locate homeless services, report, homeless activity and analyze factors related to homelessness. They're designed to work together as one integrated system that supports the community's overall effort to assist people who are homeless or at risk of becoming homeless. Today, I want to take some time to show you some of the components of the solution.

Chris Fox, Esri: [00:46](#) The first solution that I want to show you is our homeless point in time count survey. The HUD requires CoCs to conduct annual point in time counts of homeless persons. Information collected through these surveys allows leaders and service providers to understand the scope of homelessness in their communities, investigate trends, identify needs and plan and allocate resources effectively. To assist with this, HUD provides a set of model surveys that reflect a review of best local practices and the input of leading survey and homeless methodology experts. However, many communities conduct their point in time counts using time consuming paper processes that are prone to data entry and transcription errors. As a result, they are collecting data that's not as complete, accurate or useful as it could be.

Chris Fox, Esri: [01:41](#) To modernize the survey process, Esri provides a digital survey, leveraging the HUD model surveys that allow communities to conduct point in time counts of sheltered and unsheltered homeless persons using their laptops, smartphones or tablets. When users capture data with the app, the information is automatically stored in your database and can be immediately used in reporting, analysis and decision making. You can also capture location data as part of the survey and the app even works when you're disconnected from the network, so you can gather survey data anywhere. By streamlining this process of collecting point in time counts, you can eliminate outdated and inefficient paper based workflows allowing you to save time and money while gathering more complete, more accurate data on your homeless population. So here we're on the HD exchange,



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

uh, where the HUD provides us some of their model surveys. Let's take a look at the interview based on sheltered survey.

Chris Fox, Esri: [02:46](#) You can see the form has some scripts that the surveyor can read while they're conducting the survey. It has some built in logic, so depending on your answers to particular questions, you may skip ahead to different points in the survey. You May, uh, ask additional questions based on their response or you may end the survey at that moment and switch to a different form. So for example, if the person doesn't want to be interviewed, then you would move on to the observation based tool. We wanted to take this paper based form and converted into a digital survey that one, uh, would improve the accuracy of the information that we're capturing because we're taking it right into a database, but also allow us to streamline some of this logic and build it into the form so the surveyor doesn't have to know which questions they need to skip ahead to. The survey, the digital survey, will present the right questions depending on their responses.

Chris Fox, Esri: [03:42](#) So here's the homeless count survey. Um, what we're using is a configuration of Survey123 for ArcGIS, and I'm showing it right now in the browser so you can access the survey from the web browser either on your laptop or smartphone. You can also access it from a mobile app. So I shrunk down the browser to more emulate the experience of what it might be on a mobile app, which is more likely what your, um, your volunteers or your surveys would have in the field. So let me go ahead and refresh this page. What we're going to see is the survey is going to update with the current timestamp so that information is automatically, uh, captured. Let's go ahead and fill out the survey so I can show you some of the logic that's built in.

Chris Fox, Esri: [04:37](#) The first question is asking if the person is in a shelter. Uh, so this is going to get at whether we're conducting and unsheltered or a sheltered a survey. If I select yes, it's going to ask me some additional questions such as what is the name of the shelter and what is the type. Uh, let's say we're doing an unsheltered survey, so I'm going to say no there. The next question is going to ask if I'm able to survey this person. This is



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

getting at whether we're going to do an interview based survey or an observation based survey. If I were to say no, it's going to provide me some information, uh, instructed me on how to capture the information. Uh, I'm going to capture information about each member of the household to the best of my ability based on what I observe. Uh, in this case, let's go through the interview based survey. Next, we have some of that built in script that you saw on a model survey from the HUD that we can read to the individual that we're serving. I'm going to say that they are willing to be surveyed and they haven't already been asked these questions. Uh, this is so we don't double count them.

Chris Fox, Esri: [05:47](#) We're going to find out whether there's actually sleeping in an unsheltered location and verify that next we're going to identify how many adults and children are a part of the household. Uh, this is going to trigger a set of repeated questions that we're going to ask to each member in the household. So if I were to say there were two adults and one children, it would give me three sets of repeated questions that I would ask to both the adults and the children. For the simplicity of this demonstration, let's go ahead and just say one adult. Next, I'm going to fill out the household question. So I'm going to ask that individual these different questions. I can skip these two questions about their relationship to the, uh, original person. I would do that for the second and third person if I was filling that out. How old are they? If they're an adult, this is going to trigger additional questions that I'm only asking two people over the age of 18.

Chris Fox, Esri: [06:49](#) Uh, indicate ethnicity. Race is a multi-pick, so I can select multiple. If I select other, it's going to prompt me to specify the other race.

Chris Fox, Esri: [07:02](#) Gender. Uh, here's a question about pets. So this is a new question that we added to the survey form that the HUD doesn't include in their model surveys. Uh, the reason for this, it was based on feedback from our customers who had implemented the survey. Uh, the feedback that we got was when determining whether to place someone in more, in an emergency shelter or more transitional housing, it was



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

important to understand whether that person had pets because that would determine where they placed that person. If they didn't have pets, they had a little bit more flexibility. They did. They had to make sure that the place was willing to accept pets. So if you indicate yes, then we're going to ask how many pets you have. We're going to answer some questions about whether they are a veteran. Um, is it the first time that they've experienced homelessness? If we say no, we're going to ask additional questions about how many times in the past three years have they experienced homelessness and how many days over that time period. We're just going to say this is the first time and indicate how many times or how many days we've been homeless this time.

Chris Fox, Esri:

[08:19](#)

Where did you last have permanent residence is also a unique question that we've added to this configuration, this survey form, uh, and the real driver behind it. The primary reason is we're developing a new application that we're hoping to release later this year with the solution that will allow communities to analyze different demographic factors and different risk factors within the community that are likely to contribute or result in generating, um, in new homelessness and to kind of test the theory or validate the results of that analysis. Understanding where the individual lasts, had a permanent residence, we can see where the majority of new homelessness is being generated in the community and through that analysis and that predictive analysis, we can then begin to place new programs focused at those different locations in the community with ultimately the goal of preventing new homelessness from being generated before it happens. So by understanding and capturing it during the point in time count, we can validate our predictive analysis of where new homelessness is being generated. If you were to select a residence, then we're going to ask for information, the street number, street address so that we can then locate that prior address in the community.

Chris Fox, Esri:

[09:51](#)

Okay. Now we're going to go down through a section of questions about, uh, intended for persons 18 years old or older. If earlier in the survey when we answered the age we answered less than 18, then these questions would be obscured. They



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

wouldn't be shown to the surveyor. So I'm going to go ahead and quickly fill these out. These are all taken from the HUD forms, so o these are pretty standard questions.

Chris Fox, Esri:

[10:21](#)

Okay. Now we come down to location. So we have a couple different options here. We could search for an address if we know it. Uh, the one I like to use, especially if you're out in the field on your mobile device, is just to capture your current location. So it's going to use the GPS location of my device and put the point on the map. If it's slightly off, I can position it or move it around slightly to get it more accurate on that location. I can also zoom out in the map and pan around, so in the example of an individual's one location, but that's not actually where they're sleeping tonight. We can position it to be more accurate of where they are actually going to be sleeping during that night. So we have a lot of flexibility of how we set the location, but we're going to capture the latitude and longitude, uh, based on where that pain is on the map.

Chris Fox, Esri:

[11:19](#)

The final question we have is a, is another custom question that we added to the survey form. We received feedback from some of our customers that they wanted a way to allow the volunteer or the surveyor to capture whether the person needed immediate assistance. Some organizations and communities had specific guidelines. For example, if there was a Veteran, they want to send someone right away out to assist that homeless Veteran, and so they wanted a way in the form to indicate that the person needs immediate assistance. You might have other criteria for when somebody might say, yes, this person needs immediate assistance. And then in the back end, if you were to submit this a survey, you'll be able to see that in the next application. I am showing you a dashboard that allows you to highlight all those people who have been marked as needing immediate assistance. If we say yes here, then we're going to capture some additional details about that person to help, uh, for anybody who's being dispatched to go to that person and assist them.

Chris Fox, Esri:

[12:25](#)

And so with that, I'm going to thank them for participating and answering the questions. If at this time there were other



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

members of the households, uh, I would repeat those same questions for every member in that household and I'm going to capture that all on a single survey. I'll submit this and this is going to submit back to my database so I have captured all of that information and now I can begin to query on it, report on it, and do a lot of things that I might want to do. Uh, one thing that I want to stress about this survey is we showed you a configuration, uh, based on the HUD model survey and additional questions that we added out of the box based on feedback we received. But you have the opportunity when you download this survey to customize it for your needs.

Chris Fox, Esri:

[13:13](#)

You can add your own custom questions, you can remove questions that we have in there that you don't find necessary, you can add some of that additional custom logic. So if you answer yes to a question - show three additional questions, you have a lot of flexibility in the form and, and how you're designing it. It's really completely customizable. The other powerful thing about the app is you can export the results to CSV or Excel. If you need to do further reporting or moving the data into different business systems or systems in your organization. So, you have access to all the raw data to do all that work, but I want to show you a configuration of an application that's already available for you that you can use to start exploring some of the data. And that's the Homeless Count Dashboard. So this is a preconfigured map based dashboard that highlights specific key performance indicators that are relevant to homelessness, and updates in real time based on the results of a point in time survey.

Chris Fox, Esri:

[14:19](#)

Uh, so this, uh, dashboard is connected to the same service that's driving that survey. So as new information is coming in, this dashboard is going to update in real time. So you could imagine this dashboard being up on a big monitor in the operation center, allowing you to have a high level overview of how the count is going, seeing some basic demographic information such as the breakdown of adults, children and Veterans, the age distribution, race and gender. You can see a breakdown of sheltered versus unsheltered. And we also have a map embedded in here that gives me an idea of where the, the



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

majority of the homeless people are by being found. You can see I have a couple of hot spots here and here, these represent different shelters in the community, but we also have a, a good heat map here in the community representing where the unsheltered homeless are being found.

Chris Fox, Esri:

[15:18](#)

Um, so I can use this heat map to understand whether there's densities and it also might help to indicate potential areas that are not being counted very well or we don't have enough volunteers focused because we're not getting a lot of results in those areas. So, I can use this dashboard passively, but I can also interact with it. So, if I'm interested, interested, for example, in all the female homeless population, I can select that item in the pie chart. My numbers reflect those updates. I can also filter by age range, uh, to further filter it down. I have some additional filters here on the left hand side. So one common one is I want to identify all my Veterans, so I can filter for just the Veterans in the community and then I can also filter for those Veterans who have been homeless for more times in the past three years. So the chronic and Veteran homeless population. So you can see that kind of limits it down to four individuals. So these might be a particular individuals that I want to focus on and maybe even tonight or a immediately go out and send somebody to assist them. What's really nice about this dashboard, similar to the Survey123 config, is when you deploy this in your organization, you'll get this base dashboard and it will just work with the survey, but you can also add your own custom widgets and controls, uh, to the dashboard. If you have additional questions such as where are all the people with pets or how many pets you could add that indicator in this dashboard you can remove things, you can move things around. So there is a really nice, um, kind of editing experience that allows you to define what you want to show in the dashboard so you have a lot of flexibility and capabilities that are available for you.

Chris Fox, Esri:

[17:12](#)

The final application I want to show you is the Homeless Service Locator. So, government, nonprofit and health and human service organizations work together to coordinate programs designed to provide shelter, food, and other assistance to homeless people. These programs make a real difference in



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

supporting people on the street, stabilizing their health and wellbeing and moving them into permanent housing, but they're often not fully utilized by the people that need them. So Homeless Service Locator as a web application that can be used by the general public and engaged organizations to locate facilities, providing assistance to individuals or families experiencing homelessness. This application is typically used by the homeless and households at risk of becoming homeless to find local agencies offering services, including food assistance, emergency shelter, housing assistance, health service and life and work skill training. This application can also be used by organizations to promote opportunities in the community where volunteers can donate their time, knowledge or food and supplies to assist the homeless.

Chris Fox, Esri:

[18:25](#)

So this application is another web application. I can access it from a browser on my laptop. I can also access it on my mobile device. And the way it works is you can zoom around the map and click on it, that particular location, or you can search for an address. So I'm going to search for an address here and the application is going to push a, put a pin down in that location and search for facilities within a given buffer distance to find all the organizations that are offering services. So we're looking within two miles here. I can expand this out, let's expand it out to four miles. I can see the different services that are available. Um, so if I'm looking for food assistance, I can select one of, uh, I can select that service. I can see a list of the organizations that are available offering food assistance.

Chris Fox, Esri:

[19:20](#)

Uh, if I select the people's Resource Center, I'm going to get some more information about that particular organization so I can find their full address, um, contact information, link to their website if I want to learn a little bit more, when they're open, all the services that they offer and any additional comments that you want to provide on that organization. So this information is, again, is all customizable. You can configure what types of information you want to show in this application depending on what information is available about that particular organization. I can then, once I've decided that's one that I'm, I'm interested in, I can get directions, uh, so it will give me turn by turn



Using ArcGIS to Address Homelessness October 22, 2018 - Webcast Transcription

directions from the location that I searched for my location, uh, to that organization where I can get the assistance. So this is a really nice application for you to promote the different organizations in the community that are offering services to individuals and families experiencing homelessness. It's also a great application, um, a great application to promote opportunities for volunteers to get involved in organizations looking for assistance with volunteering. Uh, a future enhancement that we're working on with this application is the ability to, uh, understand, especially with emergency shelters, uh, how many beds are available or bed capacity. Uh, so that's something that we want to provide in a future release and we're currently working on that.

Chris Fox, Esri:

[20:56](#)

So with that, this was a brief introduction to some of the applications that are available in the solution, the ArcGIS solution to reduce homelessness. Uh, there's many others, but I appreciate your time and have a great day.