Good afternoon, everyone. My name's Stan Orchowsky, and I am JRSA’s research director, and I’d like to welcome you to this afternoon's webinar on Maintaining a Digital Presence - The Illinois Statistical Analysis Center Experience, featuring Mark Powers from the aforementioned Illinois Statistical Analysis Center. Before we get started I wanna cover a few logistical items. We'll be recording today's session for future playback. The link to the recording will be posted on JRSA's website, and emailed to attendees and those on the waiting list. Today's webinar is being audiocast via both the speakers on your computer and teleconference. If you have speakers on your computer or headphones and are not a presenter, we recommend listening to a webinar using your computer speakers or headphones. To access the audio conference, select audio from the top menu bar, and then select audio conference. Once the audio conference window appears, you can view the teleconference call-in information or join the audio conference via your computer.

If you have questions for the presenter or would like to communicate with JRSA staff, we encourage you to submit your questions using the chat feature on the right side of your screen. Please select host from the drop down menu next to the text box. All of the telephones have been muted. The session is scheduled for an hour and a half. We'll finish promptly at 3:30 Eastern. If you have technical difficulties or you get disconnected during the session, you can reconnect using the same link that you used to join initially. You can also call Webex tech support at 1-866-229-3239.

In the last five minutes of today's webinar, we're going to ask you to complete a short survey. If I remember, the information you provide will help us to plan and improve future webinars and meet our reporting requirements. As I mentioned, today's webinar is on maintaining a digital presence. The genesis of this webinar is really partly that I was looking at the Illinois Website back, I believe it was last fall, and was just really impressed with what they've done in terms of the tools that are available online. And so I reached out to those folks, and Mark has graciously agreed to present that information to you today.

Mark has been a research analyst at the Illinois Criminal Justice Authority since 2006. His interests include corrections recidivism, applied statistics, and record linkage. He received a master's degree in criminology from the University of South Florida, and learned how to develop Web tools on the job with the aid of SJS grants. How about that? His current projects include the analysis of crime and recidivism for various programs in Illinois, and improving the data accessibility of Illinois criminal justice data. So with that I am going to turn this over to Mark, and Mark, thank you so much for agreeing to do this this afternoon.

Okay, looks like I'm the presenter now. As Stan mentioned, my name is Mark Powers. Been a research analyst here for about 10 years. And so Illinois Criminal Justice Information Authority houses the Illinois Statistical Analysis Center, and I
think probably most people that would be listening to this webinar are also in a statistical analysis center. But just as a summary of what we do at the SAC, we collect, house, and disseminate data over geography and time, geography being mostly county level, and time being mostly years. We publish reports on data trends over time. We conduct evaluations, both impact and process and we publish those results of those evaluations, nd we provide technical assistance to county, both units of government and various other bodies.

Mark Powers: I would say though, at least since I've been here for the past 10 years, the actual services that we provide really haven't changed that much over time, but the technology has changed quite a bit and has allowed us to increase efficiency of what we actually deliver. So in this presentation I'm going to cover a couple different things. I'm going to show you what our SAC website looked like over time. We went through basically two very large redesigns, one back in 2010. One actually took place over several years, around 2010 to 2012, another one that was fairly recent in 2015. I'm going to cover some user-based considerations, and possibly some data considerations if we have time, and then I'll show you some examples of data tools and software that we use and I'll show you kind of, if you don't use data tools at your own SAC, maybe you'll get some ideas that you could possibly adopt. And at the end I'll give you some recommendations just from our experience of developing this website over the past six years or so.

Mark Powers: So we can go back in time to 2010 and 2012 and see what we were involved with in terms of the actual website, and what I really want to look at is how it actually started before we began the redesign. So 2010, Illinois made a top 12 websites list. That normally would be a good news item. Unfortunately though, it ended up being the 12 worst government websites, so obviously we had to make a change to our website. Just looking at this, it's one of those list articles, and I don't know if I would take it all that seriously but the critique does make some good points. And of course to add insult to injury, we had 16 people like this on Facebook.

Mark Powers: So, one of the reasons why the actual website was not very good is that we were all stuck in a template that, at the time when Blagojevich was governor, he basically mandated that all state agencies use the same template. So every Illinois government website basically looked the same, and the actual template was, by 2010, at least six years out of date. I can actually show you by using something called the Internet archive, I'm going to go ahead and share my desktop and go to the Internet browser. So this is the actual Website as it looked in 2004. You can go to WebArchive.org and actually look at our Website all the way back to the '90s.

Mark Powers: If you look at what it looked like on the PowerPoint slide compared to this, it's virtually identical. Keep on mind [inaudible 00:06:25] that article was written in 2010, and this is a 2004 capture. If you look to see how the SAC is represented
on this page, it's kind of not really obvious. If anything, the SAC is kind of scattered all over the place. We're kind of in publications. We're kind of in data. Our data is often presented to county profiles. There's nowhere that says really Statistical Analysis center or research unit or anything like that.

Mark Powers: So that was 2004. Let's go forward to 2006, two years later. As you an see, not much has changed. I don't know if I would expect too much of a change in two years, but something that really changed here was, it's the same issue. We have the data here. I can show you actually what some of the products were back then, too. Also, our county profiles are here. We got lumped in with the inflatable dog balloon as well. Here's some of the actual data that we were presenting back then.

Mark Powers: So 2006, we are pretty much presenting things like static PDFs, looking to have some static charts. So, these weren't actually live. These were not connected to actual live data. Once you put them up there, you really can't change it unless you re-upload and redo the PDF and the map. The county profiles, we used to do this in the early 2000s and I think prior, every few years. I'll just show you one because you can actually see what it still looks like. We'll just take Adams County.

Mark Powers: This is the 2006 website capture. The actual profile was published in 2004, which means the data by then was probably 2002, so it's very difficult for the SAC to actually keep these things updated in a good amount of time. Eventually what we wanted to do is create something more of like a real-time live profile, which we have recently sort of done. I'll show you that toward the end. Let's see ... Let's go to 2010, when the actual article about the worst websites is written. Again, I think the actual website doesn't look that much different. You can start to see some modernization though, where we have more interactive menus and so on. But again, there isn't really anything that says, "Here's the research units or the SAC's website." It's basically just that we're kind of all over the place.

Mark Powers: That was one of the things that we really wanted to change when we decided to redo the website after basically the new governor, Pat Quinn, said, "You no longer have to use this old template. Come up with the best idea that you can on your own." So, let me go back to the PowerPoint. Right around then, there was some major advancements particularly in Web technology, and then also funding opportunities. One of the big advancements that actually was around for quite a while but it was primarily used for other purposes was Adobe Flash. In the past, you would usually see Flash video games and Flash movies on websites, but around then people started to realize, you can actually use this Flash technology to create these kind of interactive data tools.

Mark Powers: It would actually be very difficult back then to accomplish this using standard HTML for various reasons that I'll probably get into a little bit below. Another big technology advancement was something called jQuery, which his basically just a
simplified JavaScript code library that lets people with less coding experience actually use JavaScript very proficiently, and they can use this JavaScript across several different browsers without having to write different versions of the code.

Mark Powers: So for example, for those of you if you've used the Internet for quite a while, maybe back in the late '90s you might remember a website saying, "This site is best viewed using Netscape Navigator version 2.5" and so on. That's because there was so much different code that had to be written that was custom assigned to each browser jQuery kind of wiped that all out. Basically jQuery now, it started out being adopted by maybe 20% of all websites and now it's closer to probably 75 to 80%.

Mark Powers: The other big advancement, and this is not really a technology one but more so a funding opportunity was the SJS grants. What these really did was they gave us the opportunity to fund dedicated staff as well as software purchases. I kind of want to emphasize this dedicated staff thing. Where we could have actually probably tried to redesign our SAC website without SJS grants, but I think other SACs would have the same experience with, if you try to do some sort of project and then all of a sudden a new project comes up that all of a sudden takes priority over the website improvement, that website improvement's going to get pushed back a year, maybe another year after that, maybe a year after that and so on. The SJS grant works really well in that you have a deliverable that's due at the end of a grant period. Usually it's a year, so if you don't have that deliverable you could be in trouble for getting additional SJS funding in a later year, so it's really is the kind of carrot and stick scenario there.

Mark Powers: So to start things, in 2010 we did several steps and I'll just go through briefly what these steps were. The first thing we did was, we developed a concept paper, and I'll talk about what went into the concept paper directly after this slide. After we wrote that concept paper, we used it to basically write our SJS grant application, which we did receive in the end. We took some time to [inaudible 00:11:44] through all of our data, which at the time was stored entirely in Excel spreadsheets. What we did is we converted that data into a normalized access database, which we're now actually going to be moving into SQL Server.

Mark Powers: We also took some time to actually basically just use Internet searching to find different software that would allow us to do these interactive Web tools that you could use for mapping, time series analysis, county comparisons and so on. Back then, there weren't a lot of options. This is around 2010. We did find one that was pretty good looking. It's called InstantAtlas, which was actually at the time a Scottish company. As we were actually looking at these tools, our webmaster informed us though that whatever we did, we had to have some sort of, something called an accessible alternative, which I'll get into that in one of the later slides, but it's basically that if you have this sort of Web tool, you
have to have an alternative for those people that can't access that Web tool. Usually they can't access it due to things like visual impairments, issues where they have difficulty using a mouse, and so on.

Mark Powers: So finally, when we had all that put together, we produced these Internet templates using a software that was purchased. We still have some update procedures that we don't have to ... So that in later years, the updates went pretty smoothly. We put all of our stuff out online, and then we just made all of our publications a little bit easier to find. So it's kind of a lot, but I'll show you over time what that looked like. But first, I think I should actually talk a little bit about what that concept paper should look like. This doesn't have to be a 20- to 30-page document. You could probably get it done in about four or five pages, and this does cover at least these five things. You might want to cover a couple other additional things depending on what the actual project is, but these should always usually be covered.

Mark Powers: Those items are the products and goals, the audience that you're actually aiming, whatever you're trying to develop for, the feasibility of the project, any benefits that you expect to gain, and then the estimated cost. This is just giving you a rough ballpark, because you might not even know how much or which software you're going to purchase and so on, and then how you expect to actually pay for this. So for example, for our products and goals in 2010 versus the 2015, back in 2010 we wanted to have data downloads, in this case I'm referring specifically to Excel files.

Mark Powers: We didn't really have that before online. What happened was that in order to get data from us, they would have to actually email us, write us or call us and we would either email them back an Excel file. We often times actually put them on CD-ROM and send them through mail and so on. It was a very time-consuming process. Another goal that we wanted that I mentioned before was interactive mapping time series because one of us, we had to figure out how to handle that accessible alternative that was required in the state guidelines.

Mark Powers: In terms of the feasibility, you really want to think about probably three main things. One is if you have the right staff, and if you have the right staff or you don't have the right staff, do your current staff need training? At least for the 2010 redesign that we went through, I think my managers considered that I was the right staff, but I still needed training so we worked that into the SJS grant. You have to think about what threats there might be to impeding your progress. Particularly these are going to be those projects that come out of left field, where maybe it's like a governor's commission where all of a sudden you need to run dozens and dozens of maps that's going to normally take up the time that you would spend on this progress. And then lastly, think about is the updating of the actual, tools, data and so on feasible over the long run?
Mark Powers: Benefits and costs; you just want to think about what the actual SAC as well as the users of the SAC's website would gain from this. You could think about those benefits relative to what you currently offer, as well as kind of like an opportunity cost of what you expect to gain as benefits, compared to what you would also expect to gain as benefits from using the alternative product. I think though, at least us, we often times will overestimate and underestimate some of these benefits. Hindsight's 20/20 in this factor, but for example just putting the Excel files on line probably saved at least one working day for a staff member every week, so it's almost like having an additional staff member for 52 days extra a year.

Mark Powers: In terms of the costs, you have to figure out what you want to purchase, how much it's going to cost you, and also, do you need the maintenance and support that that vendor might provide? If you're going to actually build your own tool in terms of coding, you have to probably think about the staffing in terms of how much time it's going to take to develop and update any code that you write.

Mark Powers: So I'm going to actually show you now what the website looked like after the redesign. So the website basically went from this appearance to this appearance. I think it's a much more modern-looking design. Even today, I think it still looks quite good. The graphic there, it's not really an important graphic. It just tends to be a stock photograph, but it does give some sort of visual flair to the Website. I think our stuff is definitely easier to figure out where things were. The news was all one section. Funding for our grantees, information was there. Publications were on the right here.

Mark Powers: Probably though most important for the SAC is now we had our own research menu as well as our own kind of portion of the website. You're no longer spread across all sorts of different menus and tabs and so on. So I'm just going, I actually have this different tab, but what you can do is with our menu you can go to the actual Statistical Analysis Center home page. You can go directly to the data sets, into our various publications. This is what the research or the Statistical Analysis Center of Illinois Website looked like back then. The only thing that's missing was there used to be a picture here, but I can't get it to show up using the Internet archive.

Mark Powers: Basically, I think this really simplified showing what our products were and where they are. Our data sets were available right here on a link to the left. Our various tools that we developed with the SJS grant were all all just below that. You'll notice too, back then I had to specify whether or not Adobe Flash was required. In this case, for these two it was, [inaudible 00:18:01]. The detail data tables was actually what I am calling the accessible alternative to the Adobe Flash tools. So basically the layout is projects are here, publications. Overall, it's just a much cleaner design and we were pretty happy with it. I think we would have still been happy with it today if it wasn't for one kind of big change in Web technology. I'll show the InstantAtlas tool, by the way, toward the end.
Mark Powers: Okay, so if the website actually still looked good, so why did we change it? Why did we have another redesign in 2015? It's probably pretty obvious for those of you who, if you're in a meeting right now with other people, just looking around the room, it's probably right on the desk in front of you; mobile. Basically, people starting accessing our website using mobile devices a lot more. That changed the way that we had to think about how our website's going to look. Let me just show you actually what I kind of mean by that.

Mark Powers: One of the nice features of Adobe, or not Adobe, Google Chrome, is that it allows you to look and see what your website would look like on different devices. So for example, this is what it looked like on your iPhone 5. The problem is, everything is really smooched together on the screen, right? And then to click the links with a finger, you've got to be pretty accurate. You have to be pretty much right on it for it to work. So, we decided that we would probably have to redesign the website so it's responsive to various other devices, mobile and desktop being the primary ones, and then tablets, if you can get it between those two it's going to work.

Mark Powers: Not to mention, there was a big change in smart phones in that they used to be somewhat of a luxury item, and now pretty much everybody has one which means more and more people are going to be accessing your data and your website through mobile over time. The other big thing is that mobile required applications to be much more what's kind of considered to be lightweight, which means that they run using less resources. There was a very public war between Apple and Adobe over Adobe Flash. You can probably guess who won that one now, but basically at that point in time I don't think Apple even allowed Flash to be used on the devices.

Mark Powers: So HTML5 eventually replaced Flash in applications, including our tools, and luckily we bought our Instant Atlas application with the optional support and maintenance. So when they upgraded those tools, we were able to get the HTML5 replacements as part of that maintenance. The other thing that happened is that there were, the Web developers started putting various examples and code libraries online, which made developing just easier overall for everybody, whether or not you were a fairly skilled website developer, or if you were kind of a novice as I was. I think though this is really a technology change. I don't think we at the time had really fully engaged our audience with our content.

Mark Powers: I think we actually, I'll show you what I mean by that, but if you were to divide our audience into two different groups, I think we were only engaging one of them. So I have to give you a hypothetical scenario that maybe your SAC fits ... I think our SAC probably fits this. I don't really have any proof of these exact numbers, but I have a feeling that this is pretty correct. I have a feeling that about 20% of our users consume about 80% of the content on our website. I think 80% of our users consume only 20%. So these would be like the power
users in the 20% that use a lot of our data. They read our publications. They apply for grants and so on, and the 80% probably only access our site once a year, if that, and they're just looking for one small piece of information.

Mark Powers: And what that is, that 80/20 rule, you've probably heard of that before. It's called the Pareto principle. I think there's a common example in crime where it's 80% of crimes are committed by 20% of the offenders. Those numbers are not exact, but it's that general principle where the minority commits the majority of some sort of event. So I have a feeling that 80% of our users may not know the terminology. The criminal justice terminology is actually quite difficult to a layperson. Things are very similar except for like one crucial detail. For example, prison and jail; in Illinois, jail is for misdemeanors serving under a year. Prison is predominantly serving over a year. They're still basically all just housed in a building, so there's not a huge difference there.

Mark Powers: Parole versus probation, I guarantee very few laypeople actually know the difference there. I think we've had to explain what the difference is between an arrest and an offense several different times to many people. I think even these users, they might not even know what they're really looking for. They just know that they need some sort of criminal justice data to back up a grant application or something like that. Maybe they need just a single number or maybe they need many numbers for their particular county.

Mark Powers: On the opposite end though you have the power users who know all the terminology. You don't have to tell them about it. They know pretty much what they're looking for, and they want a lot of detailed historical data, and they're actually more likely to use the web tools that we have or to just download the data and analyze it on their own. So on the second redesign, I thought we were in really good shape for our power users who are in this blue group, the ones who consume the most content, but I thought we were lacking in content for these basic users who would not be considered the power users, the occasional visitors and so on.

Mark Powers: So that's what we decided to concentrate on for the 2015 redesign, and we were kind of lucky there because when we switched to the mobile website, most of what we had before still worked, and it worked without interruption. Instant Atlas was already an HTML product by the time we switched, so that we didn't have to worry about. The reports, we kind of had to do some different key word tagging and so on, and we put them on a different entry page. But for the most part, our SAC content was actually in pretty good shape for the transition.

Mark Powers: But, there were two things that we thought we were missing. One was a shorter way to show what our articles, not our articles, what our reports said, and we decided to put these into shorter articles. I'll show you some examples of those in a little bit, but basically it's a way for people to look at what we've done in the
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SAC without having to read a however many page PDF. The other thing is for our new data tool we decided to make an accounting profile tool that put the data in a really simple format without a lot of options, that I think pretty much anybody who, whether or not they have criminal justice experience or much knowledge in the criminal justice system, will probably be able to actually figure out what they need.

Mark Powers: So this is basically just one way to provide different products for different users. For our 80%, we now offer this, what we offered before which is a series called get the facts and walk-through in the criminal justice system, and now we have these short articles as well as the data profiles. Like I said before, for the 20% of the users that we considered kind of to be the power users, then we pretty much didn't change too much because we thought we were already giving them quite a bit of content.

Mark Powers: So let me show you what the new website looked like after the redesign. This is the home page, the Illinois Criminal Justice Information Authority. You'll notice it's much more graphical now, and obviously it's going to ... The reason why is partly because it will work well on mobile. Let me actually just show you what this looks like on mobile. So now that horizontal layer of pictures turns into a vertical one so it allows for scrolling. You can easily click on the boxes, so it's not an issue of where, if your fingers are too large to get the link to work, and so on. Everything's more of a vertical layout for mobile. The site is responsive to which device you use, so on desktop it looks differently.

Mark Powers: The Research Analysis Unit or the SAC still had their own kind of page, it just looks a little bit different so that it works well on mobile devices. Actually, we'll go ahead and just go to that. So now, we have basically kind of five, or I'm sorry, six groupings. An overview of what the Research Analysis Center looks like, who's in it and who are the managers and what their functions are, our publications, which are now broken down into reports as well as articles, a listing of articles, and this kind of looks like what you'd expect out of a news blog.

Mark Powers: We have information now on the actual staff members in the SAC. We didn't actually have that before. We had it actually in the site from the early 2000s, I believe, and then we have all of our tools in one spot. And then last but not least data, in terms of the Excel downloads, are still available. I didn't have to really change much of anything for this to work on the mobile devices, either. So, let me show you an example of an article. I'll show you actually how we kind of go about making these. Let me go to, let's see, we'll do this one.

Mark Powers: Male survivors of violence and trauma, I think I clicked on the wrong one, but this one's the actual full report, but if you don't want to read the full report we have an alternative that's just a shorter article. The article basically has a small amount of text. Printed out, it's probably five to 10 pages probably at most, and
then a graphic. The interesting part about this is that we have the SAC members who are not Web developers. They're not professional Web developers. They're actually creating this and these charts in HTML and JavaScript on their own. We actually send the HTML JavaScript to our webmaster.

Mark Powers: So, I think it's kind of important that we no longer need to rely on the webmaster to do all of the work. We can actually do some of the actual development ourselves, and I'm going to actually show you how we do that. We use a couple different tools. For the most part they're free, so I think pretty much every SAC can use these. With the Web articles, we've used something called Markdown in Highcharts. Markdown isn't really so much just a tool. It's more of a technology or a concept. What it does is it allows you to type as if you're using a word processor and it will automatically create the HTML, so you don't have to actually know HTML to use it.

Mark Powers: There is a free online editor that we use called StackEdit.io. The charts that we use are from something called Highcharts. It's a JavaScript library that allows you to create these interactive charts and it's fairly easy to create. What I do typically is, I'll show you an example of this, I don't actually code any of these from scratch. I just find an example that someone else got to work, and I modify their example so it fits the way we want it to look. Highcharts is free if you're not commercial. It's kind of a tricky license. Government sites have to pay a license which I think is $150. It used to be totally free for everybody, but they just went commercial in the past couple months.

Mark Powers: To test these things, we don't actually have to use those, but we use those. There's something called JSFiddle, or JavaScript Fiddle, which is free again, and it acts as kind of like a temporary container or sandbox. You're free to test both of these products and see what your actual article is going to look like. When you actually, when we use these, we don't actually care too about what the styling is in terms of the font, the font size, the font color, the spacing and so on. Because when we give it to our webmaster, it's going to automatically pick up the rest of our website's usual standard design features.

Mark Powers: So let me show you actually how we go about creating one of these web articles using StackEdit.io with Markdown in Highcharts. All right, so this is the StackEdit.io editor, and what you do is you basically type in it. It's just like a word processor, but usually what you can kind of do, you tag various elements. So for example to create this as the heading versus just normal text, you put a hashtag in front of it. If you want to do another heading, you put two. If you want to make a link to something in some text, you surround it with the square brackets and you put the link in parentheses, so this shows up as a Web link.

Mark Powers: You can decide to make text bold. You can do bullet points, various subheadings. You can for example link the images. I'll actually do an image link real quick. I'm going to just pick some random image. It won't make any sense in
regards to the article, but it's not a real article, anyway. So I'm going to click up here, image, put the URL, click okay. There's the image. This is kind of a simple example, it's just kind of a dummy article, but I think it's just showing you how this works, it's really sufficient.

Mark Powers: So once you have your article in here and your headings, your links and so on, what you could do is go to the menu and say export to disk and export as HTML. When you click this, it will download as a file, and the file is basically, you want to just open in a text editor and copy it, right click copy. And then for this particular article, let's say I wanted to use a line chart, so I want to figure out how to actually create a line chart in the Highcharts, but I'm not going to code it from the ground up. I'm just going to find an example, so let's go ahead and do that, actually.

Mark Powers: Let's Google Highcharts, line chart for example. There's basically basic lines. Highcharts provides a lot of documentation on how to create these things, so this is the basic line chart. They allow you to look at all the options, and what I'm just going to do is, I'm going to click this edit in JSFiddle. In this top box is the HTML and here's the JavaScript. I'm going to just go ahead and paste what I had in that other document that I exported, click run. You can see there's what I was using as an article, and now I have this chart. The chart of course doesn't make any sense, because it's just an example from the Highcharts documentation, but if you look at the actual chart language, I wouldn't expect anybody who's not a Web developer to actually write one of these from scratch, but you could easily edit it.

Mark Powers: So for example, it says monthly average temperature here. I can see that's the title. Maybe I would say this is felony sentences. We'll just actually use [inaudible 00:32:51]. Subtitle source, it's not RuralCrime.com in our case. The administrative office is owned by the courts, which I'm just going to abbreviate as the OIC. As you edit it, you can go ahead and click run to see what it looks like. You can see the title changed and the subtitle changed. Categories, I look here and I see a bunch of different months. I look on the chart, I see the months there.

Mark Powers: So what I could just do is change these for example to years, say for example 2000 and 2001 and so on. What I'm going to do is just to speed up this example is I'm going to take it directly from an Excel file. So, I know that just looking at the example that it had to be separated by commas, so what I'm just going to do is I'm going to type in equal concatenate, which is basically combining two strings. Get that number, comma, and I'm going to put in an additional comma and just drag it.

Mark Powers: It just looks a little complicated, but again once you just play around with it a little bit you'll be able to figure it out in an hour. So now I have my categories, you click run, and they show up. There's some extra ones here because some
additional data that, they have more points than I'm using. The Y axis, I'm going to go ahead and just change this to sentences. All this other stuff, I don't really care about the college right now. I could look up in the guide and see how to change those if I wanted to. Same thing with the legend, I don't care about that.

Mark Powers: Series, obviously these don't make any sense so what I'm just going to do is I'm going to replace them with something that does. So for example, instead of Tokyo we'll do probation. Instead of New York, we'll do prison, and instead of Berlin, we'll do other. I'm only going to use three series, so I'm actually going to get rid of this last one. So all I need to do now is replace the data that they had with the actual true data that we want to show, so I go back to the Excel file. I already have this concatenate thing, so I can actually just drag this down. This is the probation with the comma separating it here, so I can copy this, go back to the JSFiddle and paste it over it.

Mark Powers: I'll do the same thing for prison and for other. I'm doing this live, so I hope it doesn't screw up. Cross your fingers. Click run, let's see what it looks like. Uh-oh, something didn't work. I would probably have to spend a little bit of time to figure out what actually is not working here, but for the most part, let me show you an example where it does work. Oops, what did I do here? Once I figured out what was wrong, it's probably just some sort of comma or extra comma. This would be what it would look like.

Mark Powers: So what I could just do then is I could actually forward this link to our webmaster and say, "Hey, can you put this as an article on our website?" And it would be fine. It would automatically pick up all the styles and so on that our master website uses. So, I mean that's one way I think that SAC can actually get content on their website that isn't 100 pages long as a report, but it's quick. It might be something of interest where it doesn't require 100 pages, maybe just an interesting data note and so on.

Mark Powers: Let's see, I think I've kind of covered this. Our articles are basically the shorter version. I like to think of them, you've probably heard the expression, people want to see the sausage and not the sausage factory? The articles would be considered the sausage. The PDFs that we have, which are long, they have all sorts of statistical models, [inaudible 00:36:59] would be considered the sausage factory.

Mark Powers: Okay, data profiles, these are brand new. They're actually not yet linked on our website. The link will probably be available in about two weeks. I'm just adding our Office of Public Information, the officer actually edited the text on these. Let me actually, I think I saw a question. I'll answer the questions toward the end, I think. So the data profiles, we kind of ran into a problem. We have all this data in an Excel file, but if someone wants to download a lot of data from one county, then they might have to string together dozens of different Excel files for that to work, excuse me.
Mark Powers: We used to, as you saw on the old websites, we used to put these county profiles out but they were in static PDFs. They would fall out of data too quickly, so by the time a PDF was actually released to the public, there might already be two additional years of data and so on, so you wanted something that would be more kind of real time. We got an SJS grant to actually show criminal history in terms of arrests in the state police database, as well as prison admission in aggregate format. That's part of the SJS grant that we got. Before, the only thing we really had on our Website was, here's how many new court admissions there were. Here's how many exits there were, and that's kind of it.

Mark Powers: So when I did those, I took what we were using for that SJS grant and created a data structure that would let us show other types of data as well, not just CHRI data, which the CHRI I'm referring to is the [inaudible 00:38:24] database, and not just the Department of Corrections data. I coded this all ColdFusion and Highcharts, which is that graphing software that I just showed you, and it's pretty much all developed using SJS grant funds. I got training in ColdFusion, which is server-side scripting, as part of the SJS grant, and I'll go ahead and show what those profiles would look like.

Mark Powers: This will be the front page of the profiles. As I said, this is going to be mostly for our lay audience. I think our expert users will actually benefit from this too, because it's a lot of information in one place. But you notice there's not many options. You basically just pick which profiles you want to look at, and you pick a county or geography or state, in this case. So you could pick Illinois for the state-wide, every county you can pick, or you can pick a judicial circuit.

Mark Powers: Some of our data, particularly the CHRI data, we can't show numbers under 10. So as a result, I usually will just actually use the judicial circuit as a county, which will produce a warning which you'll see. Let's say I want to look at all these for Cumberland County. I click the profile. I'm going to get that warning that says that if you're selecting a county, the CHRI data will be mostly at the judicial circuit level that Cumberland County is in. So I'll go ahead and click the button again to proceed, and it loads a very kind of long profile. It's got a table of contents to the left, which is very similar to what our articles have. This one covers four different things, CHRI arrest profile for the the fifth judicial circuit, which Cumberland County is part of. The adult court profile, which is aggregate data that we get from the administrative office of Illinois courts, and then prison admission and exit data. Lastly, an appendix that kind of has some background data.

Mark Powers: So in the profile itself, it's still coded intro page at the top, but there is basically a brief description of what the data is that we're showing, and generally we're also going to include a description of why we're showing it. So for the overall arrest incidents, I'll show that and then I'll show ... By the way, these are like the Highcharts, I already mentioned this before, they are somewhat interactive. You
can click certain things to make parts of it appear and disappear. Pie charts, you can have the pies pop out and so on.

Mark Powers: So I showed the arrest counts. I showed the circuit population, so for example here, Vermilion County has 54% of all the arrests in the CHRI data, and they only have about 45% of the population, not an incredibly interesting finding, but those type of comparisons can be made. I show the rates per 100,000 people. These are some of the more interesting comparisons down here, looking at for example the arrests by age. As you would probably expect, the age 45-plus arrests are actually a much lower proportion than what you'd expect given the population. Not surprising at all, younger people are the ones who are most likely being arrested.

Mark Powers: Arrests by sex, you can probably guess that males are disproportionately more likely to be arrested. As you can see, in that case it appears that way. Arrests by race, this is going to vary quite a bit by counties. This could be pretty useful. This is at the judicial circuit not the county in this case, but for example the arrests by race for this judicial circuit, the fifth judicial circuit, is about 25% non-white arrestees. The population is only 2%, so that could be pointing to some of the problem there. Then we also show the arrests by the felony class. In the appendix we explain what the different classes are. The arrests by offense type, we use a lot of different offense types for this one and that's the end of the arrest profile.

Mark Powers: Court profile is actually much more simple, because it came to us as aggregate data. You just actually show the filings, filings rate, felony convictions and sentences, so you can see what proportion of your county is going to DOC versus probation, probation case loads. Here's kind of an interesting thing, where there was a huge jump and I'm not sure, this might actually be a result of one of our programs called Adult Redeploy, where it's possible that the felony administrative ones go up. Maybe this is because a lot of people are being put into Adult Redeploy in lieu of prison. But I'm not actually positive though if Cumberland is part of Redeploy, so I'll have to look into it more.

Mark Powers: Now on to the adult prison admissions section. These, by the way, you can use these to navigate through the profile itself. You can get kind of seasick though, doing it too much. So here I kind of describe what a prison admission is, what the different admissions types are, and show a chart of that. The rate that the new court prison admissions, prison admissions by age, and also the population by age, prison admissions by sex, population by sex, same thing with race. It's very similar to what the arrests look like, and then the exits look pretty identical to what the admissions look like in terms of the data, just instead of admission type it will be exit type. I think for the most part, the rest of it's very similar.

Mark Powers: And then the appendix at the end will just have what the population data is that we're using for the rates. It will have population by the total population,
population by age, by sex, by race, race ethnicity. For the offense classes, it will describe what those offense classes are as well as what the possible sentences are, and then for the categories it will basically give a description of what kind of offenses are included in those categories that we have created. But that is the entire profile. It's very simple to use. There's very few options, so you can't really screw up anything, and it actually looks pretty good when you print it out. So this is I think our kind of method of replacing those PDF static profiles that we used to produce years ago in the past. Okay, we've got 45 minutes? That's not bad.

Mark Powers: So right now where we are, at least in our SAC, is I think we, thinking about our users as kind of novice users and advanced users, not really so much their proficiency in terms of using data tools and data, but more so their knowledge of the criminal justice system, I think the data profiles are going to be really strongly suited for the novice users. It can also be used by the advanced users. Our self-help link from that list can probably be used by anybody as long as they ... Depending on how much knowledge they have of the actual data and what the data means.

Mark Powers: I have something called a criminal history and recidivism tool that I'm actually not going to show. The reason why I'm not going to show it, it's not a bad tool in terms of the actual information that it can produce. The problem is the way that I set up the actual layout and the design of it, I want to redo. So what I plan on doing is actually removing the actual tool itself and instead putting the information into a data profile, so it will just be another one of those check boxes in data profile, so anybody would be able to understand it without knowing, for example, why would I care about if it's a technical violation recidivism event versus a new court and so on? It will be all explained.

Mark Powers: Let me show you, let me actually go on to the next part. So, I don't know what other SACs are using in terms of tools. I kind of get a sense that there may not be a lot of SACs that are actually using data tools. Maybe they want to try to actually kind of put their foot in the water and see what they can actually use. There's a big advantage to people starting now versus when we started back in 2010, is that now there's a lot more options, and there's a lot of free options. Back when we started, that didn't really exist.

Mark Powers: So let me show you just two possible options for the advanced users, for the mapping and so on. The first is what we actually use. It's the InstantAtlas desktop, just commercial software. It does require a license to be purchased. You can choose to pay for upgrades and annual fees for annual support. It's not too expensive, if I remember correctly. The big advantage of InstantAtlas to me is that it's extremely easy to use. It was originally built so that people who were not Web developers would actually be able to put together these kind of data atlases, and it was, I would say it's very successful at that. There's several different templates, like we have I think a license. When you buy a license, you
buy a license for each template and we bought I think four licenses. I think we're only actually using two right now. We're using a single map and a scatter plot tool.

Mark Powers: There's another option though that's free, kind of in quotes. There's some conditions to it. It's called Tableau Public. I think a lot of people probably have heard of Tableau. It's heavily used in business. The free version allows you to have up to 10 gigabytes of data in the cloud, and 10 gigabytes of data for a SAC I think is way more than you'll ever run into unless you're putting case level, individual level records on the cloud, which you probably don't want to do, anyway. I don't think you'll ever get near 10 gigabytes, so I wouldn't worry about that limitation.

Mark Powers: What I would worry about though is that it's, I think in at least my opinion, I haven't done too much with it yet. I've just kind of put my foot in the water with Tableau myself, is that I find it to be much more difficult to set up. There are a lot of guides and videos out there, and examples other people can provide. In terms of the data, getting the data into the two tools, InstantAtlas allows you to use either Excel or Access, so the data can be either normalized or in a non-normalized form. Tableau though actually prefers a normalized form, but it's okay because some of the charts actually are easier to make with the denormalized data. If we have time I'll get into what the difference between a normal and a denormalized data set is.

Mark Powers: With Tableau too, you don't actually purchase a license, or you don't have a license for a given template. You have all sorts of different charts available for any template. There isn't really even such a thing as a template in [inaudible 00:48:23], it's just kind of a word I'm using. Okay, so let me show you what our in-house products look like. I'll start with InstantAtlas, so when you go to our SAC website, I have to find it, there it is. Under the tools is where we house all of our different tools.

Mark Powers: Criminal history recidivism, I'm not going to go into that one. The detailed data table, so what was originally that accessible alternative to Flash, I no longer think you actually need these if you're using the HTML5 version of InstantAtlas, because HTML5 is accessible. So I can show you what these look like. They're just very basic things. You pick a county, and then it's going to give you all sorts of data on that county. The only problem is that there's not a lot of context to where it's actually showing you. It describes that it is and what the rate and the count is, and it's not necessarily clear too, what clicking on different things will do.

Mark Powers: So if I click here, I'll get the report of domestic offenses for all different counties. If I want to know what this means, I have to probably click one of the years. Yeah, so that will give me the definition. If I click a county, it will go back to that huge county profile type of page. But like I said, these were originally intended
to be an alternative to the Flash, so I don't even think these are necessary anymore. You might actually like them though, if you want to show a lot of data for your counties in one spot. I believe if you buy this template that does the mapping, this comes free. So I mean, if you buy one of the other templates, you probably get this free.

Mark Powers: But below that though is where you actually see our tools, the single map tool and the scatter plot [inaudible 00:50:19] tool. And this is the single map tool. It's something we're going to have to zoom on the pages and zoom out of it and reload it. What it does is it allows you to put in data into various themes, so for example I'm using UCR offenses, other offenses, arrests, juvenile arrests and so on, corrections. We'll pick a corrections one. We'll do new court admissions, department of corrections 2014, and then that data will show up in the map, excuse me.

Mark Powers: The map is kind of interactive with the chart, so if I click on Cook, that line is going to stay on the chart. I can put compare slides on there, for example to compare it to Illinois, to compare it to a southern region. I can click and use several lines. I can switch this chart to a sorted column chart. It interacts, the legend itself is interactive and you can create filters from the legend, so for example if I only want to look at those that have a high new court admissions rate to DOC, I can click this and I can say filter, and now I'm only looking at those.

Mark Powers: You can kind of swap the legends into different types of things, so for example if I wanted to do a continuous thing, that would work, a continuous kind of break system. You can put in your own custom filters, so for example if I only want to look at say the central region, and so on. It's a pretty flexible tool. It does a lot where it's actually very easy to create. I think if you were to download the evaluation, you can get something like this up and running pretty shortly. The only thing that might take quite a while is to actually write up all these descriptions, and it does allow you to put all these descriptions as well as links to data and so on in the actual tool itself. You could swap between a map and a table of the data. There's just a lot of things that it can do.

Mark Powers: We have another variation of this called the scatter plot one, and this one lets you look at ... For some reason I had it zoomed so small at the state level there. It allows you to look at two indicators at once, so for example if I want to look at felony probation offenses on the X axis and felony sentences on the Y axis, this would kind of give me an indication of, for example, which counties are sentencing a lot of people to prison compared to probation.

Mark Powers: So for example, White County here is quite low on the felony probation sentence rate, but they're pretty high on the felony prison sentence rate. You'll get a regression kind of equation and a correlation coefficient. I think you'll usually get some other possible statistics that you could put in there. I think I
limited it to just those two though for us. This is also one of the things too, where you can create kind of your own groupings. So I think if I click filter, yeah, so I think both these tools are very good for kind of descriptive, or not descriptive, explorative data analysis, and I think they're more intended for our advanced users who really kind of actually know what they want to compare in the first place. The profiles would be for someone who doesn't really know.

Mark Powers: Okay, let's see, so with InstantAtlas you have basically a couple different software components. One is a data manager, which is basically either an Excel file or an Access database, and I'll show you what the Excel file actually looks like. I think most people should start with the Excel file, unless they already have all the data in Access, and which in that case I would go ahead and use the Access database. There is a designer that allows you to kind of move around things from the template, so if you want to put the chart in the bottom left corner and the map in the upper right and so on, you could do it. There's a style there that lets you customize your colors, your fonts and so on, so if you want to have your Atlas look exactly like the rest of your site, you'll be able to do it. And then finally, there's a publisher that basically just takes all those three parts and ties them together into Excel.

Mark Powers: Let's take a look, actually. I'll show you what the Excel file data manager looks like. You'll see it, it's pretty simple. I'm trying to make this a little bit bigger. So you start off with a geography and filter sheet, and basically it just has a code for the actual county. We're using counties in Illinois. I think most states will also be the same. We use a county code, the county name. You can put a link to certain things about the county, like you could probably put a link to the county's official website. If you want to put in filters, for example we have a filter for judicial circuit, a filter for urban/rural, a filter for the region, you can put them there. I don't think there's any limit to the number of filters you can have.

Mark Powers: The actual data will go into one of these worksheets that's kind of preaced with IA data sheet, so in the actual data sheet what you will have is the code, the county name, and then for each indicator you start off with a big kind of merge style that has the actual theme, so in this case the theme is property UCR, next offenses, then below that you have an indicator within that theme. This one would be the burglary offense rate, and then I don't think anything has to go here, but here is where you would have the actual rate, for example the rate for 2000 and the counts for 2000, rates for 2001, counts for 2001, rates for 2002, counts for 2002, and so on.

Mark Powers: You just basically repeat your data like that, so I think pretty much any stack would be able to get the data to look like that if they use spread sheets already, or if they're using it in an Access database. The other sheet that you'd want to look into is the metadata. This sheet that I'm using, I use the Access data manager so this work is actually pretty old, but I don't think you actually have to
do as much as I was doing here. But here's where you would put down, for example, descriptions of what the data are. Maybe you would want to put in some caveats with the data, links of the data source, links to a download of the data and so on.

Mark Powers: This takes a little while to work out, but once you do one or two it's actually pretty simple. So once you have that data all entered, you just go, you hit the add into the Excel file. You just click IA export, and it's going to ask you what type you want to export it to? The 1805 versions use JSON, which is JavaScript object notation, so you click okay and tell it where to save it. I'm not going to go ahead and run this one, because I just did it prior to the webinar starting, but it will produce these files which you can input onto the web server. So when you actually update data, you don't have to replace the entire Atlas, you just replace the data files. I actually just replaced the data files this morning, so ...

Mark Powers: Let's see ... I think I've covered this. This is what the Access data manager just looks like. It's an Access data base. If you know how to use an Access data base you'll have no problem with actually figuring this out. I actually thought it was somewhat actually easier than the Excel files, but that's probably just because I use Access a lot. This would be what the actual designer looks like, and it's one of the things where it's a drag and drop thing. You insert what you want to insert in terms of charts, maps, tables and so on, and you just move them around with the mouse. The same thing, you put in your buttons that you want and so on. There isn't really even a need for like a For Dummies manual. Tableau has a For Dummies book, and it's actually pretty helpful. I've actually looked at it, but in this case InstantAtlas provides a kind of tutorial. I used the tutorial I think the first time I got one up and running. It took maybe a couple hours at most.

Mark Powers: There's some knowledge that could be helpful in terms of coding, but I would not say it's required. It's for kind of doing these things like toggle buttons that switch between two different charts and so on, but one thing that you could do is that if you see something that another organization has in terms of what they're using InstantAtlas, InstantAtlas is used quite a bit all over the world. I think maybe actually the United States has one of the lesser kind of presences, but it's pretty popular in Europe, I think.

Mark Powers: You could actually download their config.XML file, which this entire thing is just based off of this one config.XML file. I can just quickly show you what I mean by that. If I were to change the link here, instead of saying Atlas.HTML, if I make this config.XML, it's going to show this XML document which probably looks like gobbledygook, but you could save this and you could import it to your version of InstantAtlas and it will show up in designer and it will look exactly like ours looks. So if you see an idea and you want to figure out, how did they do that? This will work. I think I've actually stolen, or I mean borrowed, several ideas from other agencies across the world.
Mark Powers: In terms of the data manager, you can see what this looks like compared to the actual manager versus ... The designer manager, anyway. What you see here is pretty much what you get in the actual live version, so you have a big rectangle here that's got the map and table, two wide rectangles here and two other rectangles below, which is basically exactly as it looks on our website, big rectangle, two wide rectangles, two rectangles. I think I've covered this.

Mark Powers: Okay, I'll just go ahead and show you Tableau Public, with just a warning. I've barely got into Tableau Public. I've probably spent about 12 hours with it total, just trying to see if it's ... Illinois is in kind of a budget crisis right now, and I don't even know if we'll be able to pay to get our annual upgrade and support out, so just in case I wanted to look into having a backup just in case a couple years down the line maybe we'll actually go and switch over to something else. I don't think that will happen, but just in case I decided to look into Tableau Public.

Mark Powers: Tableau Public allows numerous types of charts. The charts that are allowed are just dependent entirely on which data you're using, and what you do is you create these worksheets. The worksheets will have, given like one single chart on it so you can combine those into dashboards and also stories. It's kind of like InstantAtlas with the drag and drop interface, but I think the actual interface is considerably more complicated to where you're going to need to watch a tutorial. You're going to need to look at a book. It's much more work, in my opinion, than Instant Atlas.

Mark Powers: There is something about the public definition. If you're interested in Tableau Public, I would definitely look and see what that's going to entail. And basically, I think if you put a dashboard up that's public, which means other people can download it and for example they can't edit your dashboard and upload it and say that they're you, but they can download it, change a little bit, and upload it onto their own website. So it's almost like they can steal your dashboard, in a way, but if you are interested you should definitely look at what public entails in this case.

Mark Powers: Let me actually, I'll show you then what Tableau Public actually looks like in terms of the designer as well as what it looks like on the website. I'm not going to go into too much with Tableau Public though, because it's fairly complex and we won't be able to cover too much. This is the actual designer. These are like the different worksheets. What I tried to do is to try to create something similar to InstantAtlas to see if I could actually get one to work. I sort of have one working. For example, this is a column chart. I could switch this to a different chart if I wanted to. This is a heat map. It all depends on which particular types of data you're looking at. It's probably not going to make much sense there.

Mark Powers: It does allow us to do mapping. For example, this is the map from indicator, which I'm not actually sure right now what it is, but I'll show you. What you do is, you put all these pieces together into a dashboard and the dashboard could
look something like this. I had this working yesterday where for some reason now these categories are kind of like disappearing. I'll show you actually what it looks like on the [inaudible 01:03:04] side.

Mark Powers: Okay, so I have a Tableau Public profile. I think it's public, I'm not positive, but I can share this with anybody who's interested. I don't think this would be like officially it's part of our state website or something like that, it's just something I'm working on on my own. This is kind of like something I did that's similar to what InstantAtlas would look like. I don't think it's nearly as polished, to say the least, but I mean you could switch, for example, [inaudible 01:03:31] DOC, [inaudible 01:03:36] to other. It does seem to work where you can tie things together. The years are not actually showing up here, but they're visible once you hover over them. That's just something I have to work out.

Mark Powers: You can switch the categories, maybe ... No. Yeah, this definitely takes much more work than InstantAtlas. Let me show you actually an example of the story though, which you can do. Tableau is often used for kind of like infographics, so let's for example say I'm interested in reported cases of child abuse and neglect compared to indicated cases of child abuse and neglect, for one given county over time. I don't know the county name for this particular number, I'm just using the FIPS code.

Mark Powers: But here you can see there's a pretty similar pattern where the overall counties typically have a same kind of distribution of how the reported cases and the indicated cases correlate, so I would be kind of surprised if all of a sudden a county moved around much from this line, so let's see what that looks like. In story mode, you can actually proceed through different dashboards, so let's go to 2006. It's still in a line, not much difference there. 2007, it's starting to move up a little bit, so let's see if it goes any further. Let's fast forward to 2010. Now it's much further up. You can annotate things in story mode, so I could add a label there, and let's see if this actually keeps, if this returns back down to the line by 2014, and no it doesn't. It stays higher, for some reason.

Mark Powers: Also with story mode, you don't have to stick to just one chart or one chart type. You can put in other types, for example if you wanted to show that county in a column chart, you could do it. So I think basically Tableau Public seems to be a little more flexible [inaudible 01:05:25] but I mean with that flexibility is the more complicated design process. I would recommend though, you might as well give both a try as long as you have the time. Both have free evaluation versions. Tableau Public is free as it is, but InstantAtlas has a free evaluation that works pretty much exactly like the normal version. I think it just comes with a watermark, so if you were to put it on your website it would have some sort of giant demo or something written across it.

Mark Powers: There are other options too besides Tableau Public and InstantAtlas. I think now there's actually going to be a lot more options than there were just a couple
years ago, but this is just showing you two such examples. Another recommendation that I would recommend particularly for promoting work is to try to use social media. I'm not really an expert at it, to tell you the truth, but Facebook and Twitter, actually I think Twitter oss probably a very good platform for something like this. We've had, for example, the governor re-Tweet some of our tweets about what we have published for analyses and so on.

Mark Powers: I have heard people recommend trying to use videos, and I'm somewhat lukewarm on that idea only for two reasons. One, I don't know if people are actually going to want to sit through a video. I don't know if I should be saying that as I'm doing a webinar, but the other thing is, if it's a video explaining how to use a tool, that probably means the tool itself is too complicated. In that case, you should consider simplifying it to where you probably don't need to actually explain it with a tool. On that note, if you want to show a video that says, look at these interesting findings I have produced by using this tool, that makes more sense because it's not really a how-to, it's what can you do?

Mark Powers: And then the last recommendation I would use for other SACs is, if you don't have staff who know how to use databases and Microsoft Access, MySQL and so on, I would definitely recommend taking the time to train them in that. You learn to work with data in a much more flexible structure, so you can work with data in all sorts of different applications and it doesn't really make a difference. If you can get it into a normalized form, you can get into pretty much any form that you want afterwards.

Mark Powers: It's going to enforce data integrity and consistency. I think the updates to data are much easier and it's much safer, so for example when you update rates you don't actually store a rate. You store the calculations of a rate. The rates are always computed on the fly. And I would, when I learned it, I didn't know databases when I started here. I learned them pretty much actually as well with an SJS grant, and I would say I had a massive productivity increase once I learned how to use databases. Stuff that would take me a day and a half to two days to do in Excel or SPSS I could do in five minutes in SQL now, and that's not even an exaggeration. I would say my productivity probably increased 20 to 30 times just by learning how to use databases.

Mark Powers: And I think that's kind of it for the presentation. I guess I could take questions now, so I don't know if I should give the mic back to Stan or what here? I did see one question already, though.

Stan Orchowsky: Yeah, you can address that question if you'd like, Mark. The question I believe is, when you were talking about the 80% and 20% of users on your website, of whether you have different user profiles or whether you're just making sure that you're aware of both target audiences as you develop your information.
Mark Powers: I would say it's definitely more the latter, that we're now sort of aware. It's actually kind of difficult to figure out who your users actually are, but probably the way I learned it in the criminal history and recidivism school is I had a professor who showed that to ... A professor at Loyola University, Dave Olson, who showed that to various probation departments. He was telling me that he thinks that tool has a lot of information, but they kind of need something to where you can guide them on what the information is, how to put it in order and what it actually means. That tool just did not do that at the time, so it's kind of like basically I've learned that where we work, we're not making it simple enough for our audience. But we don't really have a user profile or something like that, it's kind of just over time that's what we learned just by interacting with people who use our site.

Stan Orchowsky: Okay, and if other folks have questions please send them to me or to me and Mark via the chat feature. I wanted to ask you, what have you seen in terms of the usage of the website in regards to these changes that you've made? What kind of feedback have you gotten? Have you seen changes in how people use things, what they use, and so forth and so on?

Mark Powers: It's kind of hard to say, because it's difficult to figure out who our users are. We have things like Google Analytics. We can tell what people are downloading and so on. I think in general though we have noticed a little bit more engagement with the article. I haven't really checked to see the actual analytics. I thought that basically you have to add in the analytics code to what you're going to provide to use the analytics, and I haven't actually checked to see what they look like yet.

Mark Powers: We actually just recently had switched to the mobile version just pretty recent, so we’ll probably have to wait a couple months and see what the difference is in terms of before and after. I suspect though that our reports, the views on our reports I would expect to not change much because I think what's going to happen is, it's not that people will read the article in place of the report. I think they were just skipping the report entirely, but now they have an alternative.

Stan Orchowsky: And has there been any ... I mean, have you had any other feedback from grantees, from other state agencies, anything like that?

Mark Powers: Over time, we've learned that the county profiles were missed, those PDFs in the past, and the reason why we haven't been doing that in recent years is those things take forever to produce. We have 102 counties, so you have to produce 102 PDFs. But now with the data profile tool, you should be able to get that through a more rapid, almost kind of real-time issue or a real-time product, so I think that will satisfy from the grantees, who will often just need like one or two numbers. The other thing is like we work with other agencies, and just based on their feedback on the tools, I've come to realize that simplicity is often
better than some of the more advanced tools that we have. I think that should actually be the priority first.

Stan Orchowsky: And what about future plans? What's planned for the future?

Mark Powers: Probably the big thing for me at least is to put more stuff into that county profile interface. Right now there's only I think four or five things in there, but I want to put in the UCR data. I want to transfer the criminal history and recidivism information to make that into its own profile. I don't know if we'll have any additional tools beyond what we have now. It probably gets to a point too where you've kind of got tool overload if you have too many things, so if you have like 19 tools on your website, you have to have something that will guide the user to figure out which ones they actually need to use, so I'd keep it down to just a couple. I think I'd probably keep it down to around four to give maximum. I think, I don't know if we're going to be applying for another SJS grant that's related to the, whatever, I forgot what the actual name of the track is, but it's like the website improvement one. I think we're going to be skipping that one this year and going for the other version, but yeah, that's pretty much it, I think.

Stan Orchowsky: So could you give some sort of an estimate of the time and resources that this took? I mean, I know you touched on this a little bit, but in terms of development and then in terms of maintenance?

Mark Powers: Yeah, I'll kind of go into, what most of the SAC I think would want to use would be probably that InstantAtlas type of product. That's pretty quick. As long as you have your data in house and in pretty good shape, to get an actual application up and running on a website I would say takes maybe a month. That would be probably a week or two, maybe a week learning how to actually use the software, a week getting your data into it, maybe another week writing up the actual metadata, like description of the data itself, and then the last week would be testing.

Mark Powers: And then after that, I mean it's basically just tweaking things, like changing the appearance and so on. InstantAtlas is just very simple, so I would recommend it for those SACs who don't have a lot of coding experience. The other thing with InstantAtlas is, when you update the data, I use the Access database manager and one problem I have is for some reason it takes me about 12 hours for Access to produce the updated data files. So if you screw up one thing in the update, you have to restart that 12 hour process. It might just be something on my end where I'm not doing something correctly, but in terms of actually updating the data, it probably takes about, I don't know, maybe of actual real work that a person is doing and not just the machine is doing in the background, I would say you can probably get by on four hours every three months.
Mark Powers: It's not a lot of time required, because you don't have to replace anything but the data files itself. With Tableau Public though, actually the updated data looks like it would actually be much easier, just because it allows ... It's actually recommended to use this normalized data format that's really easy to produce, at least on my end it is.

Stan Orchowsky: Okay, and we have a question from one of our participants. Is the text in the profile replacement tool customized to each county or judicial district, or is it standard language that appears no matter what is chosen by the user?

Mark Powers: It's going to be customized to the geography type, so for example if you're picking a county, the text will say your county and so on. If you pick a judicial circuit, it will say judicial circuit X, judicial circuit Y, whatever. If you're picking Illinois as a state it's going to say the state has an average rate of so on. The text is pretty much customized, not fully. There's some things I have to check and see if I'm getting it correct, but I don't think I have too many places where for example it will say in the text itself, Adams County versus Bond County and so on.

Mark Powers: There are some things too where certain things will appear only if you pick a judicial circuit or the state. So for example, if you wanted to know about the arrests within the judicial circuit, you wouldn't see that if you were to take the statewide [inaudible 01:16:42] because it's basically, I produced a chart that shows for the judicial circuit which counties are in the actual circuit and what their arrests were. I don't produce the same thing for the states, because it would be 102 lines. But I mean, it is customizable to where I could show different things based on what's chosen.

Stan Orchowsky: And could you tell us a little bit about how you went about selecting the tools that you did select initially? Why did you pick those particular things?

Mark Powers: Yeah, the main one was InstantAtlas. For the most part, this was back in 2010, 2011, I think. When we picked it, there was not a lot out there at the time. I would say we actually pretty much narrowed it down to two choices. You can go with InstantAtlas, which kind of has this very easy to use interface, or we try to create our own basically [inaudible 01:17:38] server application. Just looking at other requirements of [inaudible 01:17:43] replication, you probably need to get a consultant. We don't know how easy it would be to maintain it and so on. It was a pretty clear choice, just because back then there were not a lot of options for showing this type of work. I'm not even sure if Tableau was even around back then.

Mark Powers: Tableau I think now was like the leader in the dashboard industry, but back then it was kind of a choice amongst a very small number of options. Now, I probably would try Tableau Public first to see if I can get working what I want to get working, because it's free, as long as what's in the public license is okay with
your agency, and if I couldn't get it to work, I'd probably go with something like InstantAtlas. One thing too that was, if you are in a SAC and maybe you have turnover, you're going to want to get some sort of product where if you get a new staff person in who doesn't know a lot of coding or things like that, they'll be able to update that data without having to take a course, to figure out how to just apply and update. So that's why I think InstantAtlas would work pretty well, too.

Mark Powers: In terms of finding the actual software, no, I would just do a Google search for it and I'm sure you'll find comparisons of all the different products out there now. What we have we're pretty happy with. It's got basically the functionality. I don't even use actually all the functionality that InstantAtlas allows, but at this point in time I don't think we're going to switch, because for one we'd have to buy all new software. But also, we're happy with what it provides so far, so ...  

Stan Orchowsky: Okay, I am not seeing any other questions from our attendees. I will remind the folks on the line that we will have a copy of Mark's presentation posted on our website. You need to give us a few days to get that done, and so you'll be able to find the slides on there. I'm just going to give it a second here. If anybody has any last questions, go ahead and send them in now. All right, so I'm not seeing any more questions. We've launched our poll. Those of you on the line, if you could take a few minutes and participate and answer the questions, that will help us in planning for future webinars.

Stan Orchowsky: I want to thank Mark very much for that informative and comprehensive presentation. I hope you all got a lot of information out of it. Thank you all for joining us this afternoon. We hope that you enjoyed the presentation. We have a webinar scheduled for a week from today, so I hope you'll join us for that. Check out our website, JRSA.org for more information about that and for more information about future webinars. Thanks again for joining us. Don't forget to fill out the poll. We'll leave that up for a few minutes, and have a great afternoon.