

# Esri Community Analyst - An Introduction

James Killick, Brenda Wolfe, and Lucy Guerra provide an overview of Esri Community Analyst, which lets you to discover important facts about any area to help you make better policy decisions and recommendations.

[http://video.esri.com/watch/637/esri-community-analyst-\\_dash\\_-an-introduction](http://video.esri.com/watch/637/esri-community-analyst-_dash_-an-introduction)

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## Video Transcription

**00:01** My name is James Killick. I'm one of the product managers on the team here. I deal with Community Analyst...

**00:08** ...and I'm joined by Brenda Wolfe and Lucy Guerra...

**00:13** ...who are also on the team and involved with Community Analyst in one way or another...

**00:19** ...and in particular, Brenda Wolfe, who's the lead product manager on the Community Analyst web app.

**00:25** So, let's get started and give you an intro.

**00:29** We wanted to start by just kind of describing what Community Analyst is for and the problems it's designed to solve...

**00:36** ...who it's for, the communities it's for, the problems and issues that we want to be able to solve with it.

**00:45** It's a product that is really designed for policy makers, and it's either those people making policy, try and make policy decisions...

**00:56** ...or it's those people who are advocating for policy.

**01:00** So, you can imagine policy being made in government.

**01:03** Obviously, that's what politicians do, right, at all levels of government, whether it be federal down to local.

**01:10** You could imagine it being used in civic or grant-making organizations.

**01:16** Where do I put my grant money? What's the best place to do that?

**01:21** Planners, planning commissions, again, the question of resource assignment.

**01:26** I talked about people advocating for policy, so advocacy groups, are another group of people who might use Community Analyst.

**01:36** Nongovernment organizations, charities, for example, maybe health agencies who are trying to, again, figure out where to put resources.

**01:46** So that's kind of the target for the product.

**01:50** The problems really fall into three categories.

**01:53** The first and most important is answering the question of whether or not you're putting the resources in the right place.

**02:01** Now, it doesn't matter whether you're talking about people resources or if you're talking about financial resources.

**02:08** Hardly ever is it the case that you have enough resources to do everything that you want to do...

**02:13** ...and you got to make some hard decisions about what you do with that finite set of resources and where do you put your efforts...

**02:21** ...where do you put your money, where do you put your people, where do you put your resources?

**02:25** In using Community Analyst, we hope that in using the product, people involved with policy making or policy decisions...

**02:32** ...can make better decisions using Community Analyst to do that.

**02:39** Once you've made a decision about where to put your resources, there's the additional issue of telling your community...

**02:49** ...that you serve, why you made the decisions you did.

**02:54** So why did you put your resources over here as opposed to down here?

**02:59** And so Community Analyst can be used as a tool to help explain your decisions as to why you did what you did.

**03:07** And in the demos we'll give you today, I think we'll illustrate that quite clearly.

**03:13** And the third problem we want to solve with Community Analyst is, okay, you've made your decisions...

**03:20** ...where to put the resources. You can tell people why you did what you did.

**03:25** The third question is, how do you reach them? What's the best ways to reach that community?

**03:31** And it can vary quite a lot.

**03:34** If it's someone like you or me in the room, you probably have Internet access, but, you know, many in the community...

**03:44** ...particularly the poorer communities, may not have readily available Internet access or access to PCs, et cetera.

**03:53** So using the information that's in Community Analyst, we can tell you about the community...

**03:58** ...we can tell you about the kind of resources that they have available to them...

**04:04** ...and the kind of media habits that they might have in terms of what they read, watch, and listen to.

**04:10** So, you can use that information to help figure out how to reach them.

**04:16** Use cases, we covered this I guess, at the high-level grant-making applications, funding decisions, environmental impact studies...

**04:26** ...health care resource planning, education funding.

**04:30** Another one here, which I didn't mention, was assessing vulnerable populations.

**04:35** For those of you that were at the Plenary Session on Monday, you saw this, right, with the Joplin, Missouri, demo...

**04:41** ...where we were looking at an area affected by that tragic tornado and using Community Analyst to assess, you know...

**04:50** ...who's in that area who was vulnerable.

**04:53** You can imagine this for planning for a hurricane, right?

**04:56** If there's an approaching hurricane like a Katrina event happening, you know...

**05:00** ...where are the vulnerable populations that I need to look out for...

**05:04** ...who are going to need more assistance?

**05:06** Again, that's a use case for Community Analyst.

**05:09** The Community Analyst product itself has been in beta since the Federal User Conference back on January 19...

**05:16** ...so it's been out there for about six months.

**05:19** It's been very popular. We actually got about a thousand beta users in the first 24 hours.

**05:24** There are now well over 2,000 users of Community Analyst.

**05:28** The product is available now as an official release as of June 28.

**05:34** And, we'll tell you this again I think before the end of the presentation, but if you want to learn more about it...

**05:39** ...the website is [esri.com/communityanalyst](http://esri.com/communityanalyst), and you can sign up for a free trial there if you want to give it a spin.

**05:48** If you look at the users who are using it today, and look down the list of organizations that they represent...

**05:55** ...you'll see a lot of cities, you'll see a lot of counties and state agencies and federal agencies.

**06:01** So all levels of government.

**06:03** You'll see a lot of people in education.

**06:05** You'll see a lot of consultants doing work for charitable organizations or nongovernment organizations, et cetera.

**06:15** We conducted dozens of one-on-one interviews with the folks who are using Community Analyst...

**06:22** ...and we've received a lot of feedback.

**06:24** So we're using that feedback to improve the product, and if you become a user of the product...

**06:29** ...well, we, you know, would love to continue the conversation with you.

**06:33** That's something that we kind of pride ourselves on, on this team.

**06:39** That's enough slides. I think it's much more powerful to show you the product, and for that, I'd like to turn it over to Brenda.

**06:47** So, thank you.

**06:49** Hi, everyone. How are you?

**06:51** [Audience response] Good. Good.

**06:52** Excellent. Alright, so I have a small number of demos, probably four or five, depending on how we all feel.

**07:01** Little vignettes to kind of show off some of the functionality in Community Analyst.

**07:05** So, I think we'll finish up...the plenary demo, there was actually more to that story, so maybe we'll start with that one.

**07:14** So it looks like most of you saw the plenary where we brought in imagery of Joplin...

**07:20** ...from ArcGIS Online post-tornado and then quickly sketched a polygon to get reports. So I'll just do that real quick...

**07:29** ...a reenactment of the plenary to tell you the rest of the story. Very artistic polygon, call this Tornado Area.

**07:46** So one of the features that's in Community Analyst is we have a business or facility search available.

**07:53** As I was doing this initial investigation myself internally at Esri after this happened, one of the things...

**08:01** ...I was watching the news and people were starting to rebuild, you know, pretty quickly...

**08:06** ...and I was wondering where did they get the lumber. Granted, it's all over.

**08:11** But I started wondering, you know, if you were there as a relief agency, where would you get some of this, this, you know, your supplies...

**08:18** ...given that I'd seen some of the devastation.

**08:20** So one of the things we can do is to use the advanced business search or facility search and search by NAICS code or...

**08:27** ...or SIC, SIC codes, SIC codes for businesses.

**08:31** And so I did a search for builders, building supplies, and this tool asked me to filter any search queries...

**08:41** ...so if I were searching for schools or hospitals or anything of interest, there are more ways to refine it by, you know...

**08:50** ...either the current map extent or searching within the area I just drew on the map, again, filtering by NAICS code and SIC code.

**08:58** So I was looking for, okay, let's just say we're going to start framing, you know, the foundations are there...

**09:03** ...we're going to start rebuilding, I would want, you know, lumber retailers, home centers, what else? Building materials maybe.

**09:15** And so I would have my suppliers...and what was interesting was to see which suppliers were near the disaster or right in that tornado path.

**09:26** So, where might you get supply from?

**09:31** One of those suppliers was one that actually made the news, and that was the Home Depot...

**09:36** ...and if I can zoom in here, you can see the post-tornado imagery more close up.

**09:45** And it's pretty...oops. Let me do a better job of zooming.

**09:58** Come on. There we go. So this is that location. I don't know if you saw on the news the Home Depot that was impacted.

**10:10** But that was kind of the rest of the story is where do you...how do you begin to rebuild after that kind of thing.

**10:16** So that was kind of rounding out the plenary demo showing you some of the business search tools.

**10:22** So maybe we can move to a more, a happier scenario.

**10:27** Another vignette would be immunizations or flu clinics.

**10:34** School season's coming up and we want to vaccinate all the kids or make sure they're vaccinated or have all their shots.

**10:41** Where would we do that if we were looking at a low-income area?

**10:45** And this story actually comes from a county, county health department that we interviewed...

**10:49** ...and spoke with when we were building Community Analyst, and they were located in the

Baltimore area.

**10:53** So I'll just zoom over to Baltimore.

**10:57** And let's say we want to have a subsidized flu clinic or immunization clinic...

**11:01** ...we would want to look for areas with low income and potentially lots of children, ideally.

**11:04** And what I can do is just, you know, drag my sliders or enter my values to find low income as well as areas with lots of kids...

**11:07** So we can use the Smart Map Search tool that you saw in the plenary as well to search for areas with median household income...

**11:15** ...and, again, we can choose from all that demographic data within the system...

**11:20** ...and I'll search for kids who are between the ages of 0 and 4 and look for lots of those.

**11:26** And now with my variables selected, for my current map extent it's going to bring back the range of values for...

**11:31** ...median household income and kids 0 to 4, and we happen to be looking at the census tract area...

**11:39** ...but I could override that geography if I wanted to or zoom in to the block group level.

**11:53** ...and show those areas on the map.

**11:58** And with the Smart Map Search tool, you get a results table that you can also export to Excel.

**12:04** So Community Analyst, anytime we're presenting you with the results or data, we want to enable you to get that information out.

**12:10** So whether it's a color-coded map, a smart map search, anything, we want to make it so you can extract that and do further analysis.

**12:18** So here, you know, we might want to pick one of these areas to target for our vaccination area.

**12:23** So I'll zoom in to the area where that showed some green. Let's see. Come on. Okay.

**12:38** Oh, I have too many selected. Let me refine my results.

**12:46** But let's say we wanted to kind of put something around one of these green areas.

**12:48** We could again use our search tool to search for elementary schools.

**12:55** Tools...and then add the results to the map or further refine them if we wished.

**13:10** And this one, you know, we could pick some of these right in the middle of the area and add...

**13:15** ...if we wanted to get the message out to this population again, we could add rings, drive times, or donuts around this area.

**13:21** Let's just say we want to do a three-minute drive time to get the word out, to get a report.

**13:33** And now for that area I can run a report.

**13:36** One of the interesting reports that Community Analyst comes with...again, it comes with 50 preformatted reports and maps...

**13:43** ...and one of the more interesting ones, in my opinion, is the Tapestry Segmentation report.

**13:49** And that...I don't know how many of you are familiar with Tapestry Segmentation...

**13:53** ...but it's a way of dividing up the population into 65 distinct groups.

**13:59** So our demographics team looks at demographics, spending patterns, all kinds of information...

**14:05** ...and throws that into statistical clustering routines that come up with these unique clusters.

**14:10** And so it goes beyond demographics to what do people do, read, watch? How do they behave?

**14:17** Do they go to NASCAR events? Do they listen to NPR?

**14:20** You know, that kind of variety.

**14:22** So we can run that report for that three-minute drive time to see what types of people would live around that school...

**14:28** ...and how we might get the word out.

**14:30** And from this, I can see that the top three segments were Urban Rows, Metro Renters, and City Commons types.

**14:37** If you don't know what those are, these are well-documented segments...

**14:42** ...and we have a PDF document that will produce a...or shows you a one-page description of what each type of segment is.

**14:52** So for Urban Rows, you get a little summary icon of what that population...sort of...you know...

**14:59** ...the encapsulation of that population, what type of people they are, as well as demographic information...

**15:03** ...socioeconomic information, and very detailed.

**15:08** And then what's fun, in my opinion, is the information on the right...residential information and preferences.

**15:14** So this is one where, as James said, we're very Internet savvy, and you would think that, well...

**15:20** ...if we're going to put up a flu shot or an immunization station, maybe we'd just put the information out on the Internet...

**15:24** ...on a website where everybody could go find it.

**15:27** But, these folks do not really have access to the Internet.

**15:31** So it's because the Internet access is not widespread, these people need to go to a public library or school to get their information.

**15:38** So instead of assuming that they can get it online, we might put up posters in the library...

**15:42** ...about where to go for vaccinations or flu shots, that kind of thing.

**15:46** So it's another way of figuring out how to have a better outreach and communicate with the population.

**15:53** That's what the Tapestry Segmentation is about.

**15:56** So that could help us evaluate, you know, where to place the clinic and how to get the word out.

**16:00** [Audience question] I have a question on Tapestry.

**16:02** Sure.

**16:03** [Audience question] What level of geography is that?

**16:04** Like if you're looking at county versus county, would it be different than looking at census tract or...

**16:08** Yes.

**16:09** [Audience question] You understand what...?

**16:10** Yeah, so the question...the question was, what level or what scale of geography is the Tapestry available at...

**16:15** ...and is it different if you go up and down.

**16:17** And the answer is it goes all the way down to the block group level, and yeah, it would be, you know...

**16:24** ...it would be just probably different depending on the composition of how many people are in each segment.

**16:29** So as you drill down into a block group, you're going to probably get a different result from a whole county level.

**16:34** Question in red?

**16:36** [Audience question] How often is the data updated? For instance, the elementary schools layer.

**16:41** Yeah, so that is data coming from Infogroup, and we update that semiannually, but for all the data...

**16:48** ...we get asked a lot about the data, so Lucy and team have provided data documentation and source information...

**16:55** ...under the help, so for any of the datasets, you can see how frequent, years available...

**17:01** ...I don't know if we have frequency of updating here, but...

**17:04** Yeah, we're going to add that.

**17:05** We're going to add frequency of updating, because that's important.

**17:09** But this will tell you more information about the data.

**17:12** And of course the demographics are done annually as well, so.

**17:16** [Audience question] So this is your crunching the data, not [Inaudible].

**17:23** For Tapestry specifically? Yes.

**17:25** So for Tapestry data, it's a little of both.

**17:27** We get data from a third party...it's survey data.

**17:31** But then our demographic team makes that usable for the entire US population by weighting it.

**17:37** No, I'm thinking MRI. Sorry. Lucy can add to that.

**17:43** Yeah, the Tapestry data all comes from demographic data, essentially.

**17:48** And Esri's data development group uses census data and updates to current year.

**17:53** So the Tapestry data that you're looking at in Community Analyst is actually based on Census 2000 data...

**18:00** ...and 2010 Esri demographic updates.

**18:05** And essentially cluster analysis is performed to come up with those 66 different neighborhood types...

**18:12** ...and then that's validated with information using a consumer survey.

**18:17** [Inaudible audience question].

**18:22** Infogroup. So the business search was Infogroup.

**18:24** Repeat the question.

**18:25** Yeah, so the question was where did the business search come from.

**18:27** He was thinking was it Dun & Bradstreet, but it's actually Infogroup.

**18:31** And that's available for the standard and higher level of subscription.

**18:34** We also have another search option in the product as well, and that's Bing Business Search.

**18:42** So you could toggle between Bing, if you know, the regular Bing.com search engine if you wanted to.

**18:48** Just brings back slightly different information.

**18:51** [Audience question] So the data categories are similar to what you find in Business Analyst solution...

**18:54** ...or similar categories, or some different or...

**18:58** The question is, How are the data and how are the categories different from Business Analyst Online?

**19:03** [Audience question] Or just Business Analyst.

**19:04** Or Business Analyst. Well, for Online, I mean a lot of the data are the same...

**19:10** ...but what's different is the way we're like categorizing them.

**19:14** So for Community Analyst, for example, we're trying to classify the datum, you know, organize it more by topics like...

**19:23** ...you know, crime, education, health versus marketing speak about more, you know, business, market potential, that kind of stuff.

**19:31** [Audience question] Right [Inaudible]. So it's kind of a different tax-...

**19:33** It's kind of a different...

**19:34** [Audience question] It's a different query you set up for them...

**19:36** Yeah, different taxonomy we've set up for the way of organizing the data...

**19:40** ...and going forward, those will diverge more and more, too, as we add more to our UI and make it more drillable and searchable.

**19:49** And also Community Analyst comes with public data that is not in the Business Analyst product.

**19:55** So the public data from CDC, EPA, USDA, that's all Community Analyst. Yes.

**20:02** [Audience question] Is Community Analyst available at any level to everybody...

**20:06** ...or is it, you have to have an account to get into any part of it?

**20:10** So, the question is, Is Community Analyst open to anybody or do you have to have an account?

**20:15** [Audience question] Yes, like a paid account.

**20:17** A paid account. So, you don't have to have a paid account.

**20:21** Anyone with an Esri global ID or user name and password can log in, but the data you get would be limited.

**20:29** So for the free information, we would have Census 1990, Census 2000, and then you could run free maps and reports...

**20:37** ...and the public data are also free.

**20:41** But the more recent Census 2010 information and our demographic projections would be subscription only.

**20:47** With the free account, you can also run reports on an ad hoc basis.

**20:54** So, you see here, I've got the highest level of subscription, so all my reports are included.

**21:00** But for a guest, there would be a price tag here, say \$50, \$75, and you could just run them ad hoc and see.

**21:08** By the way, if you want to try it, we do have the 14-day trial at the highest level of subscription...

**21:15** ...so you can look in at the...and there's a subscription comparison, some subscription comparison documents...

**21:20** ...so you can kind of play with the data and see if you, you know, which level subscription you think would be useful with that trial.

**21:27** [Audience question] On layers, how many layers of subscription...

**21:31** Yeah, oh, how many layers of subscription are there?

**21:32** There are three levels of subscription, so Basic, Standard, and Standard Plus.

**21:39** We will have advanced. Standard Plus is kind of a placeholder until we get...

**21:43** ...we build out more features and functions for advanced.

**21:47** [Audience question] Pricewise?

**21:48** Sorry?

**21:49** [Audience question] Pricewise?

**21:50** Pricewise, it's fun time now.

**21:53** Pricewise, the Basic subscription starts at 995, nine hundred ninety-five dollars per user per year.

**22:00** Standard is 2,495 per user per year, and the Standard Plus is 3,995 per user per year.

**22:06** And then we have deep discounts for multiple users.

**22:09** So...we start...if you had three...we have the 3-pack, 5-pack, and 10-pack and we start discounting.

**22:13** So like the 3-pack is about 50 percent off for each user...10, 5, let's see, the 3-pack is 50 percent off.

**22:21** What am I thinking? 5-pack is 60 percent off...

**22:23** ...and the 10-pack you're like 70 percent off per user by that time.

**22:26** Also, it looks like our nonprofit pricing just got posted to the price book and came through.

**22:31** So we will have nonprofit pricing, if we have any nonprofits here. And I'll...

**22:36** [Audience comment] For education.

**22:37** And education. So we'll have nonprofit pricing would be about 50 percent off.

**22:40** [Inaudible]

**22:41** List price? Government, you're not really nonprofit, are you?

**22:47** It'll be...the prices I initially quoted were government as well.

**22:51** And then the nonprofits would be 50 percent off and then education, yes.

**22:55** We don't have the education subscriptions in place yet, but we will have them very, very low.

**23:00** So a student can get this for like \$30 a semester and then like for a campus or a class, it's going to be about like 500 bucks for...

**23:11** [Audience comment] So what you're saying is the new pricing is like Business Analyst.

**23:13** Yes. Like the BAO, and we're making all of it pretty much on par.

**23:18** The education pricing would be on par with the Business Analyst Online.

**23:19** [Inaudible audience question]

**23:21** Education pricing.

**23:23** So. Alright. Pricing questions. Always fun.

**23:30** So, what was I going to show you?

**23:32** So a little bit more functionality.

**23:35** We've gone and done some immunization, looked at Tapestry, let me clear that guy.

**23:41** So we talked about getting information out. Another way we can get information in is by importing your own points...

**23:50** ...or shapefiles on the map, so we've been getting asked this quite a bit at the booth...

**23:53** Can I import my own areas if I have jurisdictions or regions that I need to import? And the answer is yes.

**23:59** You can import a file, either a shapefile or, again, a spreadsheet of addresses or point shapefile.

**24:08** So, for example, I have the city of Bozeman, city boundary for Bozeman, a different one, so if

you're, you know...

**24:16** ...adding lots of...incorporating lots of areas into your city or annexing, you might have an updated shapefile...

**24:23** ...and I'll just go ahead and import that.

**24:25** I can choose to keep it as a single site or multiple sites if it's got multiple polygons, Bozo, Bozeman...

**24:32** ...the nickname for Bozeman. It's Bozo.

**24:36** And there's my polygon.

**24:38** So this is a nice way for desktop users to kind of interface with the novice user...

**24:43** ...because they just walk through this, click, click, click, and import a zipped shapefile...

**24:47** ...and now the novice user can go ahead and run reports all day long.

**24:51** So if you're in a desktop generating areas for them, they can just continue to run that, and run reports for that area.

**25:00** So that's one way to get data in.

**25:02** Another is for importing locations. Let me clear this guy.

**25:09** This was another fun experiment I did this spring.

**25:13** We have a partner called CitySourced.com, and they have a website that...let me switch to the slide.

**25:20** They have a website and a mobile device where people can report incidents in the city like graffiti and abandoned shopping carts...

**25:27** ...abandoned vehicles, trash pickup, you know, that kind of stuff, and so you can use your iPhone and take a picture and report it...

**25:34** ...and then look at the map.

**25:36** Well, their website also lets you extract the data and dump it into Excel spreadsheets.

**25:40** So I exported graffiti reportings for the LA area, and since I did this in January, it was for the January time frame...

**25:48** ...and I was able to import them so I could import locations, and let me, where's my graffiti...CitySourced...

**26:00** All the graffiti for January and then again, there's a step-by-step wizard to allow you to import spreadsheets.

**26:05** So, again, it's just doing the column matching, we'll do ZIP Code, Next.

**26:18** And you can pick your symbology and add these points.

**26:21** It'll geocode them.

**26:23** These already had lat-long but...so I was able to just put these points on the map and kind of start exploring again.

**26:29** And now I notice kind of little clusters here, the LA area, and there was a cluster up here that looked interesting.

**26:35** So I'll zoom in to that.

**26:36** And I sort of wanted to understand what caused that pattern or what might explain it.

**26:40** So this is, again, where the fun part of Community Analyst comes in, the ability to map data.

**26:46** So let's look at income, because that always explains or is indicative of things.

**26:54** So 2010 per capita income, and in this case, low is, or the light color is low income, but I can flip that ramp.

**27:02** So now red is the low income area and it kind of follows the graffiti.

**27:07** We can also look at, let's do median age.

**27:17** And again, red would be the low age, so the, you know, lower median age...

**27:22** ...and the other thing I looked at was spending on education.

**27:30** So, for example, what did they spend on, you know, average spending on education, let's just say.

**27:35** And, again, red would be low spending on education.

**27:38** So I'm not saying there's causation, but it is kind of an interesting social picture to look at, hmmm, all these graffiti.

**27:43** And there's a question.

**27:44** [Audience question] Do you take queries from this, develop it as a service and ingest it into [Inaudible]?

**27:53** I'm sorry, ingest it into Silverlight? Sorry.

**27:56** [Audience question] If you have all the data [Inaudible].

**27:57** Yeah. Yes.

**27:59** [Audience question] Can you access that data and then create services that are ingested into Silverlight?

**28:05** We'll talk about that.

**28:06** Yeah.

**28:07** [Audience question] Do you push it out to your [Inaudible] once you've made a map?

**28:10** That's coming in the future. That's in the road map, yeah.

**28:12** Yeah.

**28:14** The road ahead is yes.

**28:15** [Audience comment] The road ahead.

**28:16** So right now we're pulling in web maps.

**28:18** The idea is in the road that we're stealing from James's road ahead slide.

**28:21** The road ahead would be that, yeah, we'll eventually get some markup tools, annotation tools, things like that.

**28:26** You'd be able to publish up there as well as have an embeddable URL that you could embed in a website...

**28:31** ...or share and that kind of thing.

**28:33** [Audience question] In looking at this, I really don't want to deal with [Inaudible].

**28:39** [Audience question] If I could get a subscription...

**28:41** Right. [Audience question] [Inaudible] do whatever I want, into a mashup, whatever.

**28:47** Yes.

**28:48** [Audience question] And I don't have to worry about...

**28:49** Yes. So you...the fellow here is...you've kind of hit basically hit upon the beauty of the cloud. Right?

**28:53** That we're...the beauty is that you guys don't...we haven't really said it...

**28:57** ...but you don't have to worry about updating any of this data.

**29:00** We keep it all up-to-date.

**29:01** You just log in, boom, it's updated, and we don't delete your sites or anything.

**29:05** So once you create a site, you know, your Bozeman shapefile, you know, area will be up there...

**29:10** ...and you can just run new updated reports or whatever you want to do, because it is a lot of heavy lifting to keep data updated.

**29:18** As we know, it's a lot of heavy lifting, as Lucy especially knows, it's a lot of heavy lifting to keep data updated.

**29:22** [Audience question] [Inaudible] at the past, it takes an untold amount of resources [Inaudible] for us to...

**29:29** Yeah.

**29:30** [Audience question] ...add basemap data...

**29:32** Yeah.

**29:33** [Audience question] ...whereas then, if we had this...

**29:34** Yeah.

**29:35** [Audience question] ...we could concentrate on our own local data that...

**29:38** Yes.

**29:39** And put it up on ArcGIS Online or bring it in or whatever you need to do.

**29:43** The idea is that eventually you'll marry your content with our content in the cloud...

**29:46** ...kind of a nice little federated thing going on there, share it, exactly. So, question.

**29:54** [Audience question] What are the limits on the times you can geocode and shapefile polygons [Inaudible]?

**29:58** Okay. So points you can bring in just for visualization.

**30:03** There are a couple of different ways to import. It's a little confusing.

**30:05** But just to view, you can import up to 4,000 records at a time or a file size limit of 5 megabytes per spreadsheet.

**30:13** That doesn't mean that you can do it multiple times and turn on multiple layers...

**30:16** ...because once I created this layer, it's stored under the My Layers drop-down, so you can see I can turn these on and off.

**30:24** They're just in there.

**30:26** But...so you could bring in 12,000 in three different batches and turn them...

**30:31** It just became a question of browser performance, and we're kind of always looking, can we up that, can we up that.

**30:37** So this last time we doubled it.

**30:38** We'll probably keep increasing the size.

**30:41** Then for zipped shape...by the way, if you wanted to import these and put rings around them...

**30:45** ...then we do restrict you on the select location and then it's just a hundred points to do batch application of rings or drive times.

**30:54** Importing a shapefile, the limit right now is 3 megabytes.

**31:01** We keep wanting to push this up, too, because people have some pretty complex shapefiles...

**31:05** ...but it's just kind of the slow upload...it's always a battle with performance...

**31:09** ...but that little bit of the downside on the cloud is kind of that performance, you know, and what your browser can handle.

**31:15** But, yeah.

**31:16** [Audience question] [Inaudible] before or after the zip?

**31:19** After it's zipped.

**31:20** [Audience question] After it's zipped.

**31:21** Yeah.

**31:24** So, just going to show you...oh, just to finish up the graffiti story.

**31:29** So it's kind of fun to explore all this, and of course, we can do a smart map search as well here and, but just...

**31:35** ...if you were curious about what's going on with this graffiti. So I did some Googling and web searching...

**31:41** ...and turns out this area, Highland Park, had had their spray washer, their graffiti cleaning equipment...

**31:47** ...stolen the prior December, so I was looking at this in January, so they had like graffiti buildup, so it was kind of interesting.

**31:56** And then I just started looking at imagery for the area, and this is kind of what the neighborhoods look like.

**32:00** As you go down the street, it's lots of low white walls, white garage doors, canvas, canvas, canvas...

**32:06** ...in other words, and you can kind of see the graffiti on the walls.

**32:12** This is kind of...this is panning the street view.

**32:16** So it's kind of, you know, I was getting depressed at this point, right, looking at all this graffiti, like gosh, but...

**32:24** It turns out there's a happy story. There's some nice community activism going on here...

**32:28** ...where there was a vacant lot that had been vacant for 40 years...

**32:32** ...and the community got together and decided to put a community garden there...

**32:35** ...and actually have a sanctioned wall for graffiti behind the garden, and they bring in...

**32:42** ...that's about where the Milagro Allegro garden is located...can see all the graffiti...

**32:47** ...and they bring in kids from the neighborhood and they teach them how to grow food and all about healthy eating...

**32:53** ...and they've partnered with the local universities to do studies, so it's kind of a nice story

like, all that graffiti...

**33:03** ...exploration, led to a happy ending. So that was kind of a nice story, a feel good moment after the tornado, right?

**33:15** So, speaking of activism, yesterday, this is kind of interesting as well, since we're kind of in that LA area.

**33:23** Let me bring up income again.

**33:25** I was...A gal came to the booth and she's got an online political radio show, and we were just sort of looking at activism...

**33:32** ...you know, community involvement, and we looked at...there's some great data in here.

**33:37** This is the survey data I was thinking about, but you can create color-coded maps of all kinds of interesting things.

**33:43** In the plenary, I showed smoking, but we also have things such as, let me go to the behaviors and preferences...

**33:52** ...political ideology and activism. So we mapped, where is it, who wrote, written, where's a politician...

**34:06** ...written or called a politician in the last 12 months variable, and looked at that.

**34:16** So this was a pretty interesting pattern, kind of that hole in LA, the LA area.

**34:23** LA's pretty interesting to look at, actually.

**34:27** Then we started looking at, okay, well, I wonder how that looks with income, right?

**34:34** So, where's my...we do per capita income.

**34:44** So that's low income, or flip it...almost looks the same, you know what I mean?

**34:49** So, I know we were also looking at, we could look at within Census 2010 data in here.

**34:53** We looked at percent white, percent black, percent Hispanic, and pretty interesting patterns there as well.

**35:01** So, interestingly enough, the city of Bell is...have you all heard about the city of Bell? I just started thinking about this.

**35:10** It's a very Hispanic area and it happens to be in one of those areas, it's right in the middle of, you know...

**35:15** ...not writing their congressman or having a, you know, being socially or politically active...

**35:21** ...so you can kind of see how somebody might be able to move in there with a, you know...

**35:26** ...maybe there's language barrier, they're not politically active. Seems like there's some opportunity.

**35:32** So, anyway, that was kind of a fun example I just had to show you as we were playing with this data for the LA area.

**35:37** But, sounds like you guys are more interested in questions...

**35:39** ...so any...I'm done with my little demo scenarios, so if you guys have questions. You're a shy bunch, so. Question?

**35:49** [Inaudible audience question]

**35:57** Yeah, so they're leading like will this be a...two-part question.

**36:01** Will there be a desktop version or another way to ask it, you know, you were saying, How can I get this data into the desktop?

**36:06** [Audience comment] Right.

**36:07** So that's kind of a segue to Lucy.

**36:10** Should we get...actually if we go back to the slides, we get to...we get to that.

**36:21** Okay, so where are we going with the products? And I think we'll answer some of your questions here at least.

**36:28** So, honestly, you've seen a lot of data in the products already, census data, American Community Survey data...

**36:36** ...a lot of data from Esri, and the survey data the Infogroup did, and blah, blah, blah, blah.

**36:41** We want to continue to build that up. There's a lot of public data in there already from USDA, EPA, HUD, I believe.

**36:49** HUD's coming.

**36:50** HUD's coming, right?

**36:51** So we're going to keep on piling on data, but not just in the US. We want to take it global too...

**36:57** ...so we'll start to look at global sources, and we want to make it more and more easy for you to get your own data in.

**37:02** Now, you've seen some of the import capabilities.

**37:06** Also, of course, if you're publishing data to ArcGIS Online...

**37:11** ...within Community Analyst there's a way to get to all of that data in ArcGIS Online...

**37:15** ...at least the publicly shared data right now.

**37:18** If you have private data in ArcGIS Online, that's only available to you as a user and your groups.

**37:26** That's not available or accessible within Community Analyst today...

**37:30** ...but it's high up on our list to make that available so you can log in to your ArcGIS Online account...

**37:35** ...and access the stuff that's available to you and your groups. Okay.

**37:38** So that's coming in the next release and you can look forward to that.

**37:44** Bidirectional connection, I think this answers your question.

**37:47** So right now, you can bring in data from ArcGIS Online, but you can't push data back out to it.

**37:52** And we definitely, absolutely want to enable that so that then you do your analysis in Community Analyst...

**37:59** ...you author some stuff, you push it back to ArcGIS Online.

**38:03** Once it's out on ArcGIS Online, you can do things like embed it in blogs and websites...

**38:08** ...and use it in other applications too. So that's very high up on our list.

**38:14** A template to support product variations. What does that mean?

**38:17** Well, the actual application right now is kind of a shrink-wrapped application.

**38:22** You kind of use it as is, and that's it, right? You get your subscription and it says Esri Community Analyst.

**38:29** What we've found, both on the business side, in Business Analyst as well as we're finding it in Community Analyst, is...

**38:35** ...people want to be able to take that application and adapt it and customize it for their own use, right?

**38:43** Put their own name on it. So, for example, we're working with the USDA now.

**38:47** They're going to have a private version of Community Analyst that they'll use internally within their organization...

**38:54** ...and it'll be the USDA Community Analyst. And they'll load up a lot of data into that system that's personal to the USDA...

**39:02** ...and the work that they do, but they'll want to keep it private to the employees of the USDA.

**39:08** So we want to create a template to make that kind of use case scenario very, very easy...

**39:14** ...so that people can take the application, skin it, configure it, extend it, and localize it for their own use.

**39:23** So that's a very big project. That's in the 10.1 time frame.

**39:27** With those three things, we're hoping to provide a complete ArcGIS system.

**39:31** I'll get to that one in a minute in more detail, but we'll also enable a global solution and...

**39:38** ...we'll enable enterprise implementation, such as the one that we're piloting right now with the USDA.

**39:45** So what do we mean by complete system?

**39:47** Well, you've seen the web application today, and that's all that's available in Community Analyst today.

**39:54** Very soon there's going to be a way to access the same data that you see in the reports in Community Analyst...

**40:01** ...directly from ArcGIS Desktop apps.

**40:05** In other words, ArcView, ArcEditor, ArcInfo, ArcMap, and we'll show you that in a second.

**40:11** We can provide for people who want to put their own data into the system and create their own applications.

**40:21** We can support that today in an on-premises deployment; that's what we're doing with the USDA.

**40:26** We're actually doing it with the technology stack on which Community Analyst is built.

**40:33** Now, for those...how many are familiar with Business Analyst?

**40:37** We've got about half of you in the room that are familiar with Business Analyst.

**40:40** You probably recognize Community Analyst if you're familiar with the Business Analyst web application...

**40:45** ...because it's essentially the same application that we pivoted to use as the basis for Community Analyst.

**40:50** So over time they'll diverge more and more, we think, 'cause the needs of the individual users will be different...

**40:56** ...but Community Analyst today is built on top of this technology stack...

**40:59** ...and at the bottom of that technology stack there's this part of Business Analyst Server...

**41:04** ...which is built on top of ArcGIS Server, and it's where we house all of that rich data that's available...

**41:10** ...as well as some analytical tools that aren't available in the vanilla ArcGIS Server product.

**41:17** So that is possible and available for you to use today in the form of Business Analyst Server...

**41:24** ...as well as there's a hosted API to Business Analyst Server called the Business Analyst Online API.

**41:31** All of the data that you've seen today, with the exception of the public data, at least for a short term, is available through that API.

**41:39** So if you're developing a custom web app and you want to do some analysis of an area within

that web app...

[41:46](#) ...and learn about the demographics of that area...

[41:48](#) ...you can leverage that API to bring the demographic analysis for a custom area into your application. You can do that today.

[41:56](#) Question?

[41:57](#) [Audience question] Are you going to be supporting versioning and replication?

[42:02](#) So the question was, Are we going to be supporting versioning and replication?

[42:06](#) [Audience question] To the cloud?

[42:09](#) Well, the data, the data that we bring in is...you can just think of it as a big kind of collection of data that's up there in the cloud.

[42:20](#) The data that you bring in, maybe your trade areas that you define...

[42:23](#) ...or your study areas that you define within the application, the shapes.

[42:28](#) Those are just up there. I mean, we'll...we replicate them ourselves so that, you know...

[42:34](#) [Inaudible audience question] I don't have to. Adding multiple different versions of the same shape or something like that?

[42:40](#) We...there aren't any immediate plans to support that.

[42:44](#) You would import them separately and label them or name them separately at this point.

[42:51](#) So right now, today, Business Analyst Server and the Business Analyst Online API...

[42:56](#) ...you can provide most of the functionality that you see in the web app through those APIs.

[43:01](#) A little bit later on, we'll have an official Community Analyst Server and Community Analyst API...

[43:07](#) ...but right now it's supported through the Business Analyst API.

[43:10](#) We will have a mobile app we hope later this year, in the winter time frame...

[43:15](#) ...so you can do some of this kind of analysis when you're on the go and in the field.

[43:24](#) And we hope to have a desktop app in the 10.1 time frame, in the same way that we have a Business Analyst Desktop app...

[43:31](#) ...we would have a Community Analyst Desktop app, which would build on top of the ArcGIS Desktop.

[43:38](#) [Audience question] Extension?

[43:39](#) Yeah, it's an extension basically. Yep.

[43:42](#) Question at the back?

**43:44** [Audience question] Would that be included in the ArcGIS Desktop license, or would that be an [Inaudible] conditional...

**43:51** That would be...so the question was, Would that be included in the ArcGIS Desktop license? No.

**43:57** The answer to that question would be, it would be like an extension to ArcGIS Desktop.

**44:02** And there was a question up front.

**44:03** [Audience question] It's like...in the...I have Business Analyst [Inaudible].

**44:08** Yes.

**44:09** [Audience question] ...and it's online [Inaudible] folks, and on there there's certain data that you can get to show or get reports and maps.

**44:17** [Audience question] There's a few that are free, that's the teachers, and then you have the other ones that you pay for, right?

**44:20** Yep.

**44:21** [Audience question] Now is it something that will be similar to that...

**44:23** Yes.

**44:24** [Audience question] ...in regards to the Community Analyst? So some we'll get free; some you pay. So it'll be that [Inaudible]...

**44:27** Yes.

**44:28** Yep.

**44:29** And the way we do it in Business Analyst, if you bought or licensed a copy of Business Analyst Desktop...

**44:35** ...you get a free subscription to the Online. So...

**44:38** [Audience question] Right. So if you have Business Analyst, you get the free...

**44:41** Online, yep.

**44:42** Alright, so that's coming later, but what we wanted to introduce to you first though is...

**44:48** ...this Community Analyst Add-in for ArcGIS Desktop.

**44:51** This will be launching in the next few weeks and it enables you as a desktop user, desktop ArcGIS user...

**44:59** ...to get access to some of the same content directly from within ArcMap.

**45:04** And the best way to talk about it is to give you a demo, and we're going to hand it over to Lucy, who will show you that.

**45:13** Great. Thank you.

**45:15** So Brenda has shown you Community Analyst, the web application...

**45:19** ...but we know that a lot of you work within ArcGIS Desktop and you would have a need to use that data and some reports...

**45:27** ...without ever having to leave ArcGIS Desktop.

**45:30** And so that's what the purpose of the Community Analyst Add-in is.

**45:34** So the add-in is a download from the Resource Center, and it's a quick installation of this little button toolbar in ArcGIS.

**45:46** And the add-in itself is absolutely free.

**45:49** You use it with your global account ID and pass name that you have with your Community Analyst subscription.

**45:57** So it's just another way to consume the data and the reports of Community Analyst.

**46:02** And you simply log in, and what you can do now is use any sort of boundary layer that you've got selected underneath.

**46:14** I've got some ZIP Codes in San Diego here, in fact, I'll select some.

**46:24** So I'm going to just run some reports on those selected features there, and you'll see these reports probably look fairly familiar.

**46:32** These are the same reports that you can access in Community Analyst, the web application.

**46:38** So what I'm going to do is just choose some of the new Census 2010 data that's available out there.

**46:45** Make sure that I match up my ID and name fields for my ZIP Code layer, and now what I'm going to do is...

**46:55** ...run that Census 2010 profile for each of those ZIP Codes that I just sent from my polygon.

**47:02** And I also asked to have the data downloaded and actually placed directly within my attribute table.

**47:09** So I'll show you that to you in just a bit.

**47:14** So there you can see, we've got brand-new Census 2010 data for each ZIP Code that I had selected in my boundary layer in ArcGIS.

**47:26** So that's great for reports, but some of you may have a need to have this data in ArcGIS Desktop.

**47:37** Now remember, I only ran some of the ZIP Codes, so let me just show those selected ZIP Codes.

**47:43** And now for each ZIP Code, I've got Census 2010 total population and a bunch of other

attributes...

**47:50** ...that are available from that report, and now I can use that information in any of my workflows that I use in ArcGIS Desktop.

**47:59** So let me show you one more report here, and I think this is really key.

**48:05** How many of you have used ACS data from the Census Bureau? A few of you?

**48:11** So, what Esri has done, has created...or ingested this data from the Census Bureau, put it into some ACS reports...

**48:21** ...and made it a little bit easier to understand that data.

**48:25** So I'll do the same thing here, run a report, and I'll also append that data back to the attribute table.

**48:38** And what's nice is I can actually hide that while it's processing and keep working.

**48:52** Apparently everybody else decided to run some ACS data right now.

**48:59** But one of the things that we've done with the ACS data is provide a measure that will help you understand...

**49:11** ...not the validity of the data, but how reliable that estimate is.

**49:16** For those of you that are using the ACS data...

**49:18** ...you know that all of the estimates that come with that data also come with a margin of error...

**49:23** ...and that has to do with the sample size that the census is using when they're collecting that information...

**49:29** ...and in some areas that margin of error is quite high.

**49:33** And so, even the Census Bureau suggests when you are using ACS estimates, you need to make sure that you're...

**49:41** ...yeah, we'll switch back to you in just...

**49:42** Well, let me show this real quick and then I can show you that whenever you use the estimate from ACS...

**49:50** ...you always take into consideration the margin of error.

**49:54** And this can be because in some cases the margin of error can be quite high.

**49:58** And so something that Esri has done to help you get through that, is add this reliability symbol.

**50:05** And green is good, yellow means caution, and red means the reliability here is low.

**50:12** You need to be careful about how you use this data.

**50:15** And if we go back into ArcGIS here, back into ArcGIS here, let's open that attribute table again...

**50:26** ...and take you to the end of the file and we can see that that reliability information is also sent back...

**50:33** ...into your ArcGIS attribute table for your boundary layer.

**51:05** Okay, so householder with income 150,000 to 199,000. There's the estimate. In that particular ZIP Code...

**51:14** ...there're 75 households that fit that bill. Well, the margin of error associated with that value is 53.

**51:23** So, imagine the margin of error means that number can be 53 less than 75 or it can be 53 more than 75. That's our best estimate.

**51:35** So in this example, we've characterized that with a red symbol...

**51:39** ...meaning the reliability here is low. Be very careful how you use the data.

**51:44** So again, you can use this information throughout the rest of your analysis in ArcGIS Desktop.

**51:50** And then, if we switch back to Brenda, she can show you how we're mapping that information on Community Analyst.

**51:58** So this is a number enrolled in college, or pick your favorite ACS variable...

**52:03** ...and then what we've done is, we've applied the toggle in the legend to let you toggle and see...

**52:07** ...switch between the estimate and reliability, and then as I mouse over, you'll see the ToolTip, the estimate...

**52:13** ...the margin of error, the coefficient of variation for that ACS data.

**52:19** Similar to what Lucy's showing you in reports.

**52:23** Yeah, so this is just a good visual to be able to look at the estimate...

**52:26** ...and then switch over to the reliability symbol and...no, keep that there, that's good...

**52:32** ...switch back to the reliability symbol and have a good idea of what areas happen to have areas...

**52:38** ...where you should really use caution when using that estimate from the ACS data.

**52:44** [Audience question] I have a question, though. ACS in census, sometimes you've got to do your own projections.

**52:48** Yeah.

**52:49** [Audience question] It can be tough to [Inaudible] census [Inaudible] Esri.

**52:52** Well, right now, we've got Esri 2010 estimates, and those are actually based on Census 2000.

**52:58** [Audience comment] Right.

**52:59** The Census Bureau released the first round of ACS data last December...

**53:04** ...and that's what you're looking at in these maps that we've been showing.

**53:07** And that's the 2005 to 2009 five-year estimate.

**53:11** And then the Census Bureau released earlier this spring the PL 94, the redistricting data...

**53:19** ...and we've...so all those things are very specifically labeled.

**53:22** We've got ACS data, we've got Census 2010 data, and we've got Esri 2010 data.

**53:27** We've not mixed and mingled them. They're considered separate databases at this point.

**53:40** Alright, so any questions about the add-in? So that will be available in a few weeks inaudible.

**53:50** Okay, so I think I talked about this, the server and the host API.

**53:56** This is a technology stack that the web app is built on right now.

**53:59** As I mentioned, it's built on the Business Analysis technology stack...

**54:03** ...and we'll morph that into a pure Community Analyst complete solution later on.

**54:09** The global solution that we're looking at building, we don't have a specific time frame for this right now.

**54:14** You know, obviously, it's going to vary region by region.

**54:17** You shouldn't expect that we'll have the richness of data that you see in the USA in all of the countries around the world.

**54:24** We do expect to be able to get reasonably rich data in the developed countries.

**54:29** The developing countries will be...there'll be some data, but less rich again.

**54:34** So for example, you know, the statistical data, the demographic data might be okay.

**54:40** The points of interest data might get less rich. We don't know for sure at this point.

**54:47** The street network is used for drive-time calculations.

**54:50** There's very good street networks obviously in North America and Europe and increasingly so in other parts of the world...

**54:57** ...so wherever we've got good street data is where we can provide drive-time analysis.

**55:02** The enterprise implementations, I talked about the application template.

**55:06** These are actual wireframe. There's an actual wireframe screen shot there of the next generation version...

**55:13** ...of the application that we're already working on.

**55:15** This is based on an entirely reengineered kind of web application.

**55:23** And as I mentioned, that will be extensible, skinnable, configurable, and localizable...

**55:27** ...so if you like what you see in Community Analyst and you want to adapt it for your own needs...

**55:32** ...you'll be able to do something like the screen shot on the bottom, which is a mock-up of an EPA environmental analyst...

**55:38** ...for example, that the EPA might do something like that. And you'll have the option of hosting that...

**55:46** ...having it hosted by us, or hosting those custom applications on premises at your own organization.

**55:54** Where you can learn more, well, you can't come to the exhibit hall anymore, 'cause I think it's closed. So sorry about that.

**56:04** But you can read our blog at [esri.com/cablog](http://esri.com/cablog).

**56:07** You can reach the team, that's [cateam@esri.com](mailto:cateam@esri.com), so do come talk to us or connect with us that way.

**56:15** There's also a couple of web addresses you should be familiar with, [esri.com/communityanalyst](http://esri.com/communityanalyst).

**56:21** If you want a trial, go to that URL. You'll find the link there to sign up for a free trial.

**56:27** And for the technical information, for the data documentation, and all the rich information that we have on the product...

**56:35** ...go to the Resource Center at [resources.arcgis.com](http://resources.arcgis.com) and drill down to Community Analyst.

**56:42** That's all we have to present.