**WorkforceGPS**

**Transcript of Webinar**

**Understanding and Applying Disability Data**

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JON VEHLOW: Welcome to "Understanding and Applying Disability Data." So without further ado, I'd like to turn things over to our moderator today, David Jones, workforce analyst, U.S. Department of Labor, Employment and Training Administration. David.

DAVID JONES: Great. Thank you, John. And thanks, everyone, for joining today's webinar. I would like to begin by noting that, based on the introductory polling question, I'm also part of a 30 percent looking forward to soon kicking off the season of summer. So we definitely have that in common.

Last month, the Department of Labor tweeted that statistician jobs are projected to grow 33 percent over the next 10 years. This trend is not surprising because as you will soon observe, the value of knowing data can support our joint effort to better understand the barriers faced by Americans with disabilities to join the labor force. Over the next hour, I hope you experience a-ha learning moments and leave today's webinar, not just knowing the existing barriers, but be equipped with having the tools to support people with disabilities, find jobs within your county, your state, and your country. So let's get started.

Today's webinar objectives are very simple and broken down into two parts. The objective of the first part is focus on understanding the data. We will focus on disability employment trends at the national, state, and county level and examine the trends that exist across different disability types. Because we recognize that the data is only good if it's useful to you, our goal is to make sure you are aware of the resources available to help you make more data-driven decisions after today's webinar.

The objective of the second part is focused on application. In this part, we are taking it a step further by highlighting how disability data can be applied as a tool to improve customer service, advocate, or do outreach in both urban and world settings. To meet these objectives, we have an experienced panel of presenters.

For Part I, focus on understanding the data, this will be covered by two scholars from the university sector. First, we have Debra Brucker. Debra is a research assistant professor at the University of New Hampshire's Institute on Disability. Debra has over 20 years of policy research experience using national-level data to measure the economic, health, and social wellbeing of persons with disabilities.

And we have Bill Erickson. Bill is a research specialist within the Yang-Tan Institute at Cornell University. Bill has been actively involved with disability research and has responded to thousands of disability data requests for Cornell over many years.

For Part II, focusing on applying the data, thiswill be covered by two front line leaders that will give voice to different settings in our country – the urban and rural landscape. First, we have Susan Dooha. Susan is the executive director for the Center for Independence of the Disabled in New York.

Through Susan's leadership in New York City, her agency applied disability employment research as a tool to improve customer service and to advocate. Susan is a former SRC Chair overseeing the New York VR program in which she effectively incorporated data to help tell the story in its annual reports.

And finally, we have Joe Hampton, who also goes by the very cool nickname, Zeke. And that is spelled Z-e-k-e. That is so cool. Joe currently serves as a research specialist within the West Virginia State VR office. Joe is part of a research team doing innovative work applying geographic information systems, known as GIS, to conduct outreach of world communities within his state. And that team effort in West Virginia has been published in a national journal.

I hope you share my excitement in having today's panel. And ETA is grateful for their participation to share their expertise with us today. We will begin the content of section Part I, Understanding the Data. I will now pass it on to Debra Brucker from the University of New Hampshire. Debra?

DEBRA BRUCKER: Thanks, David. This is Deb Brucker, and I'm pleased to share with you some information about national, state, and county-level disability data. And some background: I work at the University of New Hampshire's Institute on Disability. My team receives funding from the National Institute on Disability Independent Living and Rehabilitation Research, NIDILRR, which is housed within the U.S. Department of Health and Human Services. And we aim to improve the collection and utilization of disability statistics to inform national, state, and local disability policy in a number of areas, including education, employment, housing, and public health.

In February 2018, we released our 2017 Annual Disability Compendium which pulls together statistics on a variety of topics from numerous federal agencies. And I'll be sharing come information from that document today. Much of the data that we use in our compendium we collate from national household surveys.

Two of the leading surveys that we draw data from include the American Community Survey, which is an annual survey conducted by the U.S. Census Bureau. It gathers a broad amount of data, including demographics, employment information, housing information, immigration, and also the current population survey, which is a monthly survey conducted by the Census and the Department of Labor's Bureau of Library Statistics that provides a more detailed focus on economic measures, including employment, job search, and wages.

So in terms of a national overview of disability data, I'm showing right now a chart that demonstrates that almost 11 percent of the working-age population in the U.S. has a disability. We know that employment rates vary not only by disability status, but also by gender. So this new slide is showing differences by those characteristics. You can see that 38 percent of men with a disability are employed compared to 82 percent of men without a disability. And 34 percent of women were employed compared to 72 percent of women without a disability in 2016.

We also know from our data that educational attainment varies according to disability status. So this next slide is showing the disparities that people with disabilities face in terms of educational attainment. Only about 10 percent of people with disabilities have a four-year degree compared to 21 percent of people without disabilities. And about 6 percent of people with disabilities have more than a four-year degree compared to 13 percent of people without disabilities.

Next I wanted to share some trend information showing how overall rates of employment have varied over the last decade or so for people with and without disabilities. In 2008, 78 percent of people without disabilities were employed compared to 39 percent of people with disabilities. By 2016, about 77 percent of people without disabilities were employed and only 36 percent of people with disabilities were employed. So there's still room for growth for people with disabilities to regain what they have lost since the recession in terms of employment.

Our most recent data from April 2018 shows gains that have occurred over the last year, with slight increases in the percent of people with disabilities that are employed – up to 31 percent compared to 28 percent of the same month last year – whereas, employment rates have stayed fairly steady for people without disabilities at around 74 percent from April 2017 to April 2018.

I'd also like to provide some state-level disability data overview. And this information is drawn primarily from an annual report that we put out in conjunction with our compendium that I mentioned earlier. It includes many maps. This map shows higher rates of employment for people with disabilities in the upper Midwest and Alaska compared to other regions of the country, with the darker areas showing higher percentages of working-age persons with disabilities employed.

This next map shows similar data – the percent of working-age persons employed for people without disabilities. Similarly, there are high rates of employment in the Upper Midwest. But there are also high rates of employment in New England compared to other areas of the country for this population.

This next map shows the gap between the percent of people that are employed with and without disabilities by state in 2016. It essentially shows the differences in employment rates between people without and with disabilities, with the largest gaps being dispersed throughout the country primarily in the Eastern area of the country from Maine to Michigan to Florida. We also include information about state median earnings. So this map shows differences in the median earnings of persons ages 16 and over with a disability. There are certain states where people with disabilities are earn more, including North Dakota, Washington, Alaska, New Jersey, Virginia, and others, compared to other regions of the country.

And we also newly offer county-level disability data. We recently released new reports on county-level information, including the prevalence of disability by county and rates of employment by county. The county reports can be found at the link that's shown on this site. And it's also included I believe in the resources that were included in this webinar. So as an example of what this might look like for your particular state, we provide two different types of information for each of these reports.

We provide both counts. So the number of persons with disabilities – as an example, in Texas by county – and also the percent of persons with a disability by county, which we're showing on this slide for Alabama. And this might be helpful as you're developing your workforce development plans.

As a more detailed example: In the state of Maine, this slide shows the percentage of people with disabilities in Maine, by county, with the darker colors being higher percentages of people with disabilities. And I actually reside in Maine, so I know a bit about this state and the numbers make sense from an intuitive perspective. I know in Maine, the northern counties are more rural and have an older population, so it is not perhaps surprising that they have higher rates of disability.

This slide shows some of the resources that you might be interested in accessing. As I mentioned, we have our Annual Compendium of Disability Statistics that provides national, state, and county-level data on prevalence of disability, as well as educational attainment, employment, health, and a number of other topics. You can access that at: www.disabilitycompendium.org.

We also offer a monthly webinar and press release on the first Friday of each month called the National Trends and Disability Employment, or nTIDE for short. And you can find more information about that and register for this free webinar at: www.researchondisability.org/nTIDE.

And then we're also happy to provide technical assistance. You can contact us by phone at: 866-538-9521 or e-mail us at: disability.statistics@UNH.edu. If you need any assistance in interpreting any of the statistics that we provide in these reports or you need something specific that you aren't able to find on our website, we'd be happy to work with you directly to provide any statistics that you need. So at this point, I'm going to turn this over to Bill Erickson.

BILL ERICKSON: All right. Thank you very much, Deb. I appreciate it. Great information there. So now we see what Deb has developed with regards to overall disability. I know what I'm going to do is delve in a bit deeper to look at the different types of disability.

One thing to be aware of is that there's no single approved definition of disability. It's really difficult to identify all types of disability. And different data sources define disability differently. And so my talk is just start off with a bit of background on our institute and then proceed to describe the different types of disability covered by the ACS and the CPS and then provide some information looking at differences and outcomes by disability type.

All right. This is actually almost what the Cornell campus looks like right now with actually blue skies for once and flowers are actually blooming here. So a little background on the Yang-Tan Institute: We're based at Cornell University. Yang-Tan itself was originally founded in the 1960s and has over 50 staff for a multidisciplinary. We have economists, rehabilitation specialists, education evaluation folks, psychologists, sociologists, etc. And our mission is to advance knowledge, policies, and practice to enhance equal opportunities for all people with disabilities.

In terms of disability statistics, we began focusing on that initially within the Department of Education grant in the early 2000s. Since that point, we've produced the annual disability status report series. We also created a website, DisabilityStatistics.org as a conduit to provide easy access to information regarding disability statistic. And that site has been the top result on Google searches for disability statistics for over 15 years. So it's been around for a while here.

OK. It's really important to understand how disability is being defined. Defining disability in the ACS. Basically disability is reporting one or more of the six disability types listed here: a visual impairment; a hearing impairment or being deaf; ambulatory disability, which is serious difficulty walking or climbing stairs; cognitive disability, if a person has a – has serious difficulty concentrating, remembering, or making decisions; self-care disability, if a person has difficulty dressing or bathing; and finally, independent living disability. Those are only individuals ages 15 or older asking if a person has difficulty doing errands alone, such as visiting a doctor's office or shopping.

Now, again, just one thing to be clear on is that these questions were not designed to capture all disability types, but were designed by the Census Bureau to capture the majority of serious limitations. And it's important to realize that the way the questions are phrased, they can't capture everything. They do not identify all persons with disabilities, especially perhaps in individuals with mental illnesses, perhaps not learning disabilities, and also upper body issues, such as a bad back which may not be captured by these specific six questions.

One thing to be aware of, also, is that disability is defined by reporting one or more of the six disability types. People can report multiple disability types. And in fact, of the working-age population, persons ages 21 to 64, about half the individuals report one disability or actually report a disability, report more than one disability type.

OK. So what does disability look like when you break it down into its components? Here is a bar chart that shows the prevalence rate by type of disability, for the working-age position. As Deb noted, about 11 percent of the total population of that age group report having one or more disability types. The most common disability type of ambulatory disability at about 5 1/2 percent, cognitive disability at a little over 4 percent, independent living at about 4 percent, and about 2 percent reported visual, hearing, or self-care disabilities.

So one of the important to things to be aware of – and perhaps not surprising to our audience – is that the prevalence rates increase significantly as people age. This chart looks at that change. The youngest age, children ages four and under, only about less than 1 percent report having either a visual or a hearing impairment. Those are the only questions asked of that particular population. About 1 in 20 individuals ages 5 to age 20 reported a disability – about 1 in 10 of the working-age population but jumps significantly – ages 65 to 74 were nearly 1/4 of the individuals report having one or more disability. And practically half of individuals ages 75 and older reported disability.

OK. So this is sort of breaking the previous chart down into it components of the six different disability types. So what I've done is I've actually dropped the youngest group since they only asked the hearing and visual disability. And all of these charts are on the same scale so you can see which disability types are more common over time.

As you can see, the hearing and visual disabilities are relatively lower prevalence rates. About 2 percent of people ages 21 to 64 reported hearing or visual impairment. But it jumps up significantly – especially for hearing for the 65 to 74 up to 9 percent and nearly a quarter of individuals 75 years and older having a hearing impairment.

Ambulatory disability also is fairly uncommon for the younger groups but jumps to 15 percent of individuals 65 to 74 and a third of individuals ages 75 and older. Cognitive disability stays fairly flat through ages 5 to 74, but then jumps to 14 percent in the oldest age group. And a similar trajectory for self-care disability jumps up to 4 percent at 55 to 74 and up at 14 percent. Independent living ramps up slowly but jumps quite a bit. Up to a quarter of the individuals ages 75 and older reported independent living disability.

Another category that we haven't really talked about yet that is actually asked in the American community survey focuses on Veterans with service-related disabilities. A service-connected disability is a disability that the Veteran's Administration has determined is related to a disease or injury acquired during military servicing. And fully a quarter of working-age civilian Veterans, about 2.3 million individuals report having a service-connected disability. As I mentioned previously, the six ACS disability questions don't pick up all disabilities. And in fact, only about a third of Veterans who report having a service-connected disability report one of the ACS disability types.

So not saying that the ACS disability categories are not valid, but there are – it doesn't capture everyone with a disability. So it's important to be aware of that. OK. So next look at the economic outcomes. And do they differ by disability types?

In short, yes. They do. And this bar chart shows the employment rates by disability types for the working-age population, ages 21 to 64. As you can see, about half of the working-age persons with a hearing impairment are employed, about 52.1 percent.

People with visual impairment slightly less likely, about 44 percent of those. About a quarter of individuals with ambulatory or cognitive disabilities are employed. And only about 1 in 6 or slightly less than that of individuals with health care or independent living disabilities are employed so quite a bit lower than those with visual or hearing impairments.

Another thing to consider is that employment measure includes individuals who are – you may be just working part-time or part year or both. So what this chart focuses on is looking at people who are working full-time/full-year so 35 hours a week and 50 or more weeks a year. As you can see you see a similar profile in terms of the full-time/full-year employment rates.

Slightly over a third of individuals with hearing impairments are employed full-time/full-year. A little less than that of people with visual impairments, about 30 percent are working full-time/full-year. And it drops down to only 15 percent for people with ambulatory or cognitive disabilities and drops down below 10 percent to about 8, 9 percent for individuals with self-care independent living.

So here what I'm presenting are the median full-time/full-year employment earnings by disability type. Now what Deb was looking at what she showed was looking at – she looked at the median income for anyone who is working. And so what this is doing this is actually standardizing and looking at only individuals who are working full-time/full-year. So you get a better sense of what's not quite out, looks like an hourly rate that they're making rather than being confused with the number of hours people are actually working.

So people with hearing disability make about $46,000 a year as median income. People with visual impairments and most of the other impairments are make slightly less than that – a little bit under $40,000 a year. Again, it's important to remember that a much smaller proportion of individuals are even working full-time/full-year or working at all with people with disabilities, as Deb had pointed out in the previous presentation. So you need to take this with a grain of salt. This does not include individuals who are working less than full-time/full-year and their actual incomes are significantly lower overall.

As you might expect given the previous slides, that poverty rates by disability type are also reflect the employment rates and the income that they're bringing in. So people with hearing impairments about 1 in 5 are living in poverty and a quarter to a third of individuals with the other disability types are living under the poverty line. So one thing to compare it to is it's always important to look at how that compares. People with disabilities how that compares to people without disabilities in their situation.

One of the cool things about the American community survey that Deb pointed out previously, is you can look at issues such as this over time. And this is a chart that provides two lines that in red is people with disabilities, the upper line. And then the black line is people without disabilities and their poverty rates. And this is focused on the working-age population ages 21 to 64. And as you can see the people with disabilities are far more likely to be below the poverty line than individuals without disabilities. And you can see they're following a very similar trajectory, but there's a very consistent – about a 15 percentage point gap between the two.

So basically, individuals with disability are about two and a half times more likely to be living below the poverty line than people without disabilities. So that's pretty striking. And it's been consistent over the past 10 years now. OK. That's fine. I just wanted to present some of the resources that you folks can take a look at that we provide on the web and elsewhere. As I mentioned before, we have DisabilityStatistics.org. It's defined to be very user friendly. You can even use your phone or any mobile device to be able to look through and work through the interfaces.

It allows you to select a huge, literally thousands of estimates, looking at employment rate income, prevalence rates, etc. by different disability types, by age groups. We also include for the employment prevalence rates, we also – or actually for the employment rate, I know someone had asked a question about looking at employment by education level. You can actually go on to our site and just grab that very easily. We have four different types of education level as well as races, ethnicity, age, disability type. So it's a very easy to navigate site.

On that site you can also download our disability status reports that provide easy access to basic information regarding prevalence rates and employment rates, poverty, all the information that I just presented just now and much more. We have reports available for each state as well as national level that includes definitions and explanations. And we also provide technical assistance. If you have any questions that we can't answer on our site, we'll be happy to respond. Just e-mail us. And the site is: DisabilityStatistics@cornell.edu.

Again, when you're going on to our site, not only can you get tables and information we provide, definitions as well as these maps, as you can see on the screen shot here. So all of the information we provide you can get. You can actually download these maps as well. So if you wanted to present information from that, it's very simple way of going about it. So I think that's it for me at this point. I'm going to be handing it back to David. Thank you very much.

MR. JONES: Great. Thank you. Thank you, Bill, and Debra. That was really insightful to really see those different trends, and truly, a picture is worth a thousand words sometimes. Before we transition to Part II, we wanted to take a break for a moment and do a quick poll. Our question is the following: Which state has the lowest prevalence of disability among the working-age population according to the latest American Community Survey from 2016? And for this question, working age is for those between 21 to 64 years old.

And the choices are the following and you can choose two: New Jersey, the garden state; Hawaii, the aloha state; Nevada, the silver state; Kentucky, the bluegrass state; and West Virginia, the mountain state. So let's just take a few moments to have you select your choices. And again, you can choose two. OK. John, how about we close the polls. And let's go to the next slide and share the answer. And folks, we have a tie.

Both New Jersey and Hawaii are reported to have the lowest disability prevalence among working-age population. Both states are the lowest at 8 percentage points. Nevada, actually, is the median and they're at 11.4 percent. When I say the median, that basically means they are at the midpoint or at the middle. In both Kentucky and West Virginia are states reported to have the highest disability prevalence rate. As we know, both states are very rural. And I do know that both states have demonstrated very strong proactive outreach to ensure people with disabilities get the services they need. In Kentucky, the governor recently signed the employment first executive order. And in West Virginia, we will soon hear about their outreach efforts.

So again, if you'd like to learn more about how your state stands in comparison to other states, I encourage you to look at the resources highlighted earlier by Debra and Bill. So that was fun. So let's begin the content of Part II, Applying the Data. I will now pass it on to Susan Dooha from Center for Independence of the Disabled in New York. Susan.

SUSAN DOOHA: Thank you very much. It's the pleasure to be here. I work with the Center for Independence of the Disabled in New York which was founded in 1978. Our mission is to ensure equal opportunity for people with disabilities and full and equal access.

In our work, we remove physical communications and attitudinal barriers to full participation in all aspects of community life. In 2017, we reached nearly 40,000 individuals through work one-on-one to help individuals meet their goals, through educational offering so the people could self-advocate, and through advocacy, through organizing an advocacy network, through influencing policy makers, and through litigation.

The people that we work with are poor and experience poor outcomes in education, employment, income, as well as food, housing, and preventable health conditions. CIDNY has a common focus with the American Job Center Network. We are not unlike them in that we support people with disabilities seeking employment.

We provide counseling about the impact of work on disability benefits. And we consider a full array of benefits for people. We do skill-building workshops, including resume development and interview skills. And we support people who are seeking further education because we believe that education is the key to better outcomes in employment and income.

We like to track key indicators of well-being in New York in our studies about the status of people with disabilities. And working with the University of New Hampshire and working with the American Community Survey data, we look at a number of indicators. Among these are: educational attainment, the employment rate, and income and poverty for people with disabilities. As you've previously heard, there are very significant disparities between people with and without disabilities in New York City.

In terms of education in New York City, we have worse outcomes for people with disabilities and significant disparities in outcomes between people with and without disabilities. People with no disability do much better both in terms of high school and college. And in New York City, these gaps in achievement are greater than at the state level and at the federal level. In New York City, our employment rate for people with disabilities is 29 percent. And that is lower than other regions of the state. The employment gap between people with and without disabilities is 41 percent, which is quite high obviously.

I'm offering you here a visual. We did two reports; one looking at employment rates by region all across the state to see where there are commonalities and where there are larger or smaller gaps. We also did a report looking solely at New York City and looking at each county within New York City – each borough we call them – at the specific employment rate and gap in that borough. These maps are intended to assist us in targeting resources in order to provide assistance for people with disabilities.

In New York City, we have noticed that people with disabilities are essentially segregated in bottom-rung, low-wage, part-time or part-year positions. Many who are working still require food stamps and other kinds of support to remain stable in the community even though they're employed. The poverty rate in New York City is particularly striking at 36 percent. And the employment gap between people with and without disabilities is around 20 percent.

We've also looked at mapping people with disabilities for purposes of outreach for targeting of services and to encourage public agencies to consider targeting resources accordingly. We are looking through our ZIP code maps at areas of the city where we see the most significant populations of people with disabilities, and then we also look at where we would find people with disabilities who are living in poverty. And we're looking at this because if you want to target outreach, if you want to consider where services might be placed or out-stationed, it's important to think about: Where do people live and where do people who are most likely to be left behind live – people who are very poor.

We use all of this data in order increase employment. And we've published a number of reports to educate policy makers. These reports are available on our website at: www.cidny.org. And we have done these reports primarily about New York City in order to influence policy makers in the city but also at the state level.

CIDNY is also very interested in applying the data to increase awareness and to advocate for employment for people with disabilities. We've used employment through our work at the New York State Rehabilitation Counsel to provide income and poverty data particularly, to inform discussions, and also to educate the public through our annual report.

We also used data regarding employment and poverty for a state Medicaid redesign work group focused on removing barriers to health by looking at some of the social determinants of health like employment. So I participated in a work group to come up with employment proposals that would help people with disabilities not only become employed, but enjoy better health.

We are currently using information about the dispersal of people with disabilities and utilization of the transportation system in New York City in discussions and negotiations with the Metropolitan Transit Authority which controls transportation in the city. And we learned a great deal about the disconnect between the placement of subways that are accessible and the higher density disability communities. And we've talked extensively with them about how transportation remains a key barrier to employment. Thank you very much. And now I pass the hat to Joe.

Joe Hampton: All righty. Thank you. Good afternoon, everyone. My name is Joseph Hampton, and I'm a research specialist with the West Virginia Division of Rehabilitation Services. This part of the webinar, I'm going to provide an example of applying disability data in a rural setting using geographic information systems to effectively and efficiently conduct outreach to potentially underserved areas.

Now a little background into the West Virginia Division of Rehabilitation Services, or WVDRS. We are a state-federal vocational rehabilitation agency, also a VR agency or a VR program. And we are a Workforce Innovation and Opportunity Act core partner. Our federal oversight is with the U.S. Department of Education, the Rehabilitation Services Administration. VR agencies provide services to individuals with disabilities that enable them to alleviate or circumvent disability related barriers to employment.

In federal fiscal year 2017, we served 12,283 consumers and we enabled and empowered 1,671 individuals with disabilities to achieve their employment outcome. And just for a frame of reference: A typical employment outcome takes about 2 to 3 years to achieve.

All state-federal VR agencies are required to conduct what's called a comprehensive state-wide needs assessment or a CSNA every three years. And the results of the CSNA are used to assist in the development of the unified state plan. And that includes the agency's goals and strategies. The CSNA has many requirements: one is a focus on individuals with the most significant disabilities; another is a focus on youth with disabilities.

But today I'm going to focus on requirement for the assessment of the rehabilitation needs of individuals with disabilities who are minorities and individuals with disabilities who have been unserved or underserved by the VR program. Even more specifically, how do we identify individuals who are minorities and who have been unserved by the VR program all while being as effective and efficient as possible given our agency's human and physical[?] resource constraints?

Some demographic information about West Virginia will help illustrate really how complex this task is and how to use technology and data together can make this process much more manageable. West Virginia has a small population, about 1.8 million, which I think makes for a great contrast to the previous section on New York City.

The state has the highest disability rate of any state or about 19 percent. Two of our states, 55 counties have disability rates of over 30 percent. We're also a very rural state with over half of our population living in a rural area. And on average, we have about 76 people per square mile, again contrasting with New York City's 27,000 people per square mile.

Additionally, West Virginia has a very small percentage of minority residents. So we only have about 6 percent of West Virginians who are not non-white. If we look at U.S. census data at the county level, we see that over half of the 55 counties have a minority population that's 1 percent or less. So having such a small minority population unevenly dispersed all across a rural state makes it extremely challenging to perform outreach to this population.

In order to alleviate this difficulty and achieve our outreach goal, we utilize several different sources of data in conjunction with Geographic Information Systems or GIS. Additional details, if you want to refer to our article published in the Journal of Rehabilitation Administration.

So what is GIS? GIS is a software that gathers, manages, analyzes, and visually displays data. It's helpful for quantitative, but more importantly, spatial analyses. Though not everyone may be familiar with the term GIS, most people are familiar with some of its common uses. For example, when you watch the weather, you might see a map of a state or a region with areas that have green, yellow, orange, or red that may denote areas where you expect light or heavy rainfall or cooler or warmer temperatures.

Even in today's webinar, we've seen examples of GIS with the maps displaying the state and county-level disability data. And in those examples, GIS allows the viewer to quickly identify geographic trends that may not be as evident when examining that same data in a spreadsheet format. And of course, to utilize geographic information systems you need data. And for WVDRS' minority outreach, our agency utilizes data from the U.S. census. This includes demographic data at the ZIP code and census block group level.

We chose the ZIP code level because of a federal mandate at the time. And the census block group level, generally speaking, is a smaller geographic area than a ZIP code level. We also utilize data from the U.S. Postal Service to identify specific mailing routes. And finally, we utilize data from our agency's case management system to identify ZIP codes where the agency had served minority consumers.

So to conduct minority outreach, a simple but expensive option would be to mail informational flyers to all West Virginia households. However, that's not being very efficient and it was definitely out of our budget with an estimated cost of about $350,000. So with GIS and the data we have at hand, we sought to conduct an effective and efficient minority outreach effort through the form of targeted mailings in very specific areas.

The steps that they took were as follows: First, we used our internal case management data to identify the ZIP codes with WVDRS consumers who are minorities; second, we utilized U.S. census data to identify ZIP codes with 100 or more minority residents; third, utilized GIS to refine areas within each identified ZIP code at the census block group level; and finally, identified the targeted mailing routes within the refined areas and mail the informational flyers. So the next several slides will display how that process actually works when using GIS.

On this slide, we have a map of West Virginia and its 578 ZIP codes at the time. The black dots represent the location of WVDRS field offices. The ZIP codes are shaded based on one of three criteria: The white ZIP codes represent 0 minorities served by WVDRS within the previous three years. The light gray ZIP codes represent those with WVDRS minority consumers. And the dark gray ZIP codes represent those that meet the agency's definition of an unserved area; that is having 100 or more minority residents with 0 minority WVDRS consumers within the previous three years.

So based on this initial GIS analysis, the agency identified that there were 10 ZIP codes across the state that met our unserved area criteria. Now the agency could stop the process here and mail the informational flyers to all households in these ZIP codes. That would achieve the outreach goal, but it would result in greater cost to the agencies and flyers being mailed to many households that were not part of the intended minority outreach population. However, by using GIS and U.S. census block group level demographic data, the agency is able to increase the efficiency even more.

On the next slide, we'll begin this refinement process using the Huttonsville ZIP code, which is on the right side of the state, the east side. And we'll begin now. So here we have a zoom-in of the Huttonsville ZIP code, which is outlined in black with the census block groups that surround and are within the ZIP code. The census block groups are shaded based on the number of minority residents within each of those. And by utilizing this demographic data at that level, the agency can now identify which areas within a ZIP code that need to be targeted and which areas may be excluded from the mailings. This allows the agency to reduce costs while focusing our resources on the targeted population.

In this example, the targeted area would be the portion of the darkest census block group that is within the ZIP code. So next we'll refine the ZIP code even further. So here we have a map of the just the Huttonsville ZIP code, with the shaded area on the left as the targeted outreach area. And that's the remaining part of that darkest shaded census block group from the previous slide. And that's where the vast majority of minority residents reside within this ZIP code. The – (inaudible) – networks are also displayed on the map. And those are used in conjunction with the U.S. Postal Service data. And that allows us to select which mailing groups to send the informational flyers.

And as this map shows, using GIS and the data from various sources, the agency was able to significantly reduce the initially identified area, which would be the entire ZIP code down to a much smaller refined area that you can see as the shaded portion on the left. And again, I said we identified those 10 ZIP codes that met the criteria. And we did that refinement process for each of those. And this table shows the different costs of the actual mailing through the refined ZIP code versus the costs that would have occurred if we mailed to the entire ZIP code. Then we have the dollar amount of cost savings and the percentage cost savings.

So out of those 10 ZIP codes, we went what initially would have been $12,500 down to about $3,600. And as previously stated, we started with those 10 identified ZIP codes that we wanted to conduct our minority outreach. And after using GIS and the census block group level demographic data, the agency was able to reduce costs by over 70 percent. And this is just one example from a state with a small population. So the potential for significantly higher cost savings in states with larger populations is there.

For example, if West Virginia wanted to target a specific quarter of all our households, we could use GIS and save about $262,000. While if New York wanted to target a quarter of their households, they would save over $2.5 million dollars. And this process can be applied in many different ways and it just depends on the goal and the data that you have available. You can target youth, seniors, certain household income levels, or certain education levels.

In GIS, it has many applications and it's widely used in the public and private sectors from retail and restaurant chains deciding where to open a new franchise, utility companies plotting the service lines; but at WVDRS, we've been using GIS for several years and under a variety of applications.

We found it particularly useful as a tool to enhance communication, especially with our legislature and other stakeholders just because it gives us the ability to convey complex information in a really quick and easy to understand format while also providing the flexibility to display that information in a variety of scales at state level, county level, or legislative district, just depending on who the target audience is.

We also use GIS to monitor service usage by county and each of those office locations that were shown on the West Virginia map. And that's just part of an ongoing evaluation process that the agency conducts. We also publish an additional journal article in the Journal of Rehabilitation Administration and that's supplying location theory to vocational rehabilitation.

I'd like to quickly thank our director, Marijane Waldron; my manager, Pisnu Bua-Iam; and Dr. Todd Sink for their contributions today. I appreciate everyone's time and I appreciate the opportunity to share one of the ways that West Virginia is using both disability data and GIS. And I'll pass it back on to David. Thank you.

MR. JONES: Great. Thank you, Joe, and what a great discussion. For me at least, there's been a few a-ha moments really. Seeing the data broken down for the 3,000 counties, resources available from the universities, and the power of visuals. I mean, they're just amazing.

So what we wanted to do was, we like to open it up to the floor for questions. And I am very pleased to report we've been getting a lot of great questions during the webinar today. So I will moderate. And I'll ask our panel different questions that came in. And if you have any questions as we have the dialogue over the next 15 minutes, feel free to enter in your question.

So the first question is for Debra Brucker. And the question is the following: What is the source of the University of New Hampshire's data on disability employment? And what definition of disability does it use?

MS. BRUCKER: Thanks. So the information that I shared today, we obtained the information from the American Community Survey and also the current population survey. That was two national household surveys I mentioned earlier, and both of those use the disability questions that Bill Erickson spoke about, the six questions that measure whether someone has any of the following: ambulatory, cognitive, visual, hearing, self-care, or independent living limitations. And again, people can check off more than one of those in these surveys.

MR. JONES: Great. Thank you. The next question is for Bill: What is the correlation between education and employment for people with disabilities and others?

MR. ERICKSON: All right. Well, as I mentioned, you can actually look that up on our website as I just did while people were speaking. So basically, it's interesting. If you're looking at individuals with less than a high school about people with disabilities about 22 percent are employed versus about 66 percent of the people without disabilities. You move on to people with a high school diploma or equivalent, about 32 percent of the people with disabilities versus 75 percent of people without disabilities. With some college like an associate's degree, 41 percent versus about 79 percent. And then you move into bachelor's degree and 56 percent of people with disabilities are employed versus 85 percent.

So basically, for either high school or less than high school, there's about a 44 percentage point gap between people with and without disabilities. It drops a bit when you get to the some college or associates to a 38 percent percentage point difference. And then it drops further but still is significant with a bachelor's or more. So the employment rate gap is about 29 percentage points between people with and without disabilities.

MR. JONES: Great. That was insightful. Thank you. The next question is for Deb. "How do you account for varying employment rates across the state? Because when we look at the map of the nation we see how it varies across the nation. So how do you account for the varying employment rates across the states?"

MS. BRUCKER: I think it's a little bit beyond a quick answer on a webinar. But as the people on the poll may know, there are obviously variations in the local economies in the state, in the demography of the state in terms of age levels, educational attainment, so all of those things interplay to create some of the variation that we see across states.

MR. JONES: Great. Thank you. And the next question is for Joe. "Joe, you've outlined how the geographic information system can be a really good cost-saving vehicle for your agency through outreach. Now, are there other areas in which you've observed in which GIS tools have been successfully applied to address challenges for more vulnerable populations in the U.S.?"

JOE: Yeah. GIS is really a great tool and it's being used widely in the public sector. I know for our state and throughout the Appalachia, we have the opioid crisis. In our state where a state or the federal government provides a certain amount of resources, our state uses GIS to target areas within the state that would best be served by those resources, so maybe allocate a certain county or certain ZIP code more of those resources than others based on the data and the geographical layout of that data.

MR. JONES: Great. Thanks, Joe. The next two questions kind of relate to ZIP codes. There's been a lot of questions surfacing. And we've identified two questions that we would like to ask. And the first one is for Susan. And the question is the following. And I think this person was probably fascinated by seeing your ZIP code visual. And the question is the following: Is the ZIP code data-specific to New York City only, or is data good for other areas also available?

MS. DOOHA: Yes. I'm glad that question's being asked. We did develop ZIP code data thanks to the University of New Hampshire and Deb's shop for the entire state of New York. And we've provided that data to our counterpart disability organizations statewide. We also mapped out for New York City the ZIP code data. But that could be done throughout the state or throughout any state.

MR. JONES: Great. Thank you. And the next ZIP code question's probably more targeted for the universities. This one question or comment is: The data using ZIP codes and location is fascinating. And the question was the following – and perhaps you may have a resource from your university – is, "Have you considered a webinar providing training on how to go about pulling such data? As a service provider, I would like to learn more how to do this so we can provide market services." And this is for Deb or Bill.

MS. BRUCKER: This is Deb. Polling ZIP code-level data is possible. But it usually takes advanced statistical knowledge to be able to code your data to get down to that level, and you need to combine multiple years of census data to be able to get down to that level of detail. So it might not be something that we could go over in a one-hour webinar. But we'd be happy to talk with people individually if they had questions about that. And the best way to go about that – even if it was our assistance – I think Joe and Susan can talk a little bit about how they actually obtained and used that data, as Susan mentioned earlier.

MR. JONES: Great. Thank you. And again, folks, we do have in our resource page attached to this webinar for their contact information. And we hope that you can utilize their services to learn more and then you can effectively plan. So that's one of the goals. We might not be able to answer all your questions, but we at least can give you the resources to get started. The next question is for Susan and relates to transportation. I think an a-ha moment for many have been in which you highlighted that there are transportation barriers even in the city of New York. It's not just a rural challenge.

So transportation can be a national barrier because there's no reliable means of getting to work. So what one leading advice do you have for both urban and rural communities on how they can use data to successfully advocate for people with disabilities to address this issue in their local community? Tough question, but I think you can give us some advice.

MS. DOOHA: Well, I'm delighted by the question because we're deep in the weeds of this campaign right now. We have previously campaigned to make buses accessible in New York City. And we're engaged in settlement talks with the city of New York City around making the sidewalks and curb cuts accessible for people with disabilities so that people can travel to work. We are very much engaged in working on the subway system in New York City.

And we have been in meetings with the head of the New York City Transit Authority and the board of the MCA talking about the mismatch between subway stations that are accessible and the location of disability populations and making the point that transportation is perhaps the number two barrier to employment for people with disabilities. And we share information about the employment rate and talk about the lower use of the subway system for people with ambulatory disabilities. And we're able to show them data regarding that, which is very persuasive.

So in addition to making a civil rights argument and saying, you really ought to level the playing field – it's public – we should all be able to use it – we're able to talk about the actual impact of not having accessible transportation available for the communities that need it.

MR. JONES: Great. Thank you. That was very insightful. Thank you. The next question is for Bill from Cornell: You presented statistics on the percentage of individuals with disabilities who are employed. Do you also have statistics on the percentage of employed people who are individuals with disabilities? It's a complex question, but I'd be interested in hearing your answer.

MR. ERICKSON: Well, it's actually not that complex. Basically, you just end up having to swap around looking at the population numbers. So what I did is I calculated based on the employed population of people ages 16 and over. So overall, if people with disabilities defined as having a disability according to the American Community Survey six disability items, about six percent of the employed population are individuals with a disability.

MR. JONES: Great. Thank you. The next question is for Deb. In your annual report, you have a section focused on health – disability correlation to health – and the question is the following. "To what extent is disability associated with overall health that may be impacted by other factors such as smoking and drinking? What specific insight do you have from your research in comparing people with disabilities versus those without disabilities in this particular area?"

MS. BRUCKER: So our annual report includes some maps. And our disability compendium also includes some tables that look at the percentage of people with and without disabilities who smoke, the percent of people with and without disabilities who are obese, and the percent of people with and without disabilities who have participated in binge drinking using data from the behavioral health risk factor surveillance system. And what we find is that people with disabilities are more likely to smoke and are more likely to be obese, but are less likely to binge drink than people without disabilities.

MR. JONES: Interesting. Thank you. The next question is for Bill at Cornell. "How can nonprofits obtain this kind of data? Is the cost of purchasing lists expensive? And I know you have a lot of resources that you provide. And perhaps you can highlight a little bit more on the data that you have that can help nonprofits."

MR. ERICKSON: Sure. Well, all of the data I provided in my talk and a lot more is available for free on our website: DisabilityStatistics.org. So you can just go on that site and access that.

If you can't find the information you're looking for, feel free to e-mail me at: DisabilityStatistics@Cornell.edu and I'll see what I can dig up for you.

All of the information we have on our website is completely free and our services are free as well. So I'm happy to address whatever questions you have. And if we can't do it, I'll let you know. But there's a lot of information out there that is available. A lot of information you can also get from the Census Bureau, the American Fact Finder has a lot of information down to a very local level. So that's also an option as well. But I can also help you navigate that and provide you with information on how to access that type of information as well.

MR. JONES: Great. Thank you. And the next question is for Joe in West Virginia. "Joe, I actually have two questions for you. The first question is the following. How did the zero number served ZIP code account for core penetration in these efforts?"

JOE HAMPTON: I'm not exactly 100 percent sure what the participant was asking, but we did conduct – this is just one of the outreach efforts that we conducted with respect to individuals who are minorities and who have been, quote/unquote, unserved in those ZIP codes. We also conduct outreach to what would be underserved areas where proportionates of the population foreseeing a lower percentage in a certain area then that would become an area we'd want to target. So what we present today would just be a piece of our overall outreach effort.

MR. JONES: Great. And Joe, the second question is the following: Did your targeting of specific geographic result in an increase in utilization of services for the VR program from those targeted populations?

MR. HAMPTON: Yes. After we did the mailings out of the 10 ZIP codes, we did have consumers after the mailings from 8 out of those 10 ZIP codes. I can't remember the number offhand. It was definitely a significant increase from 0 in the previous three years, so 8 out of 10.

MR. JONES: Thank you. And the next question is for Bill. And Bill, this is related to disability correlation with those employed in different sectors. "During your remarks, you highlighted the prevalence rates against disability type and age which was so insightful. But what additional insight can you share of the leading industry sectors that people with disabilities employed actually serve within the U.S. labor force? And how does that maybe compare against the population without disabilities? So what sector are people with disabilities serving that are employed mostly?"

MR. ERICKSON: OK. Well, people with disabilities are more likely to be employed in the retail trade industry – about 13.2 percent compared to about 11.3 percent of individuals without disabilities in that sector – and also more likely to be employed in what the Census Bureau calls "other services," the nonpublic administration, just slightly more likely to be employed in that sector – about 6 percent versus 5 percent. People without disabilities are more likely to be in professional, scientific, and management industries and also more likely to be in finance, insurance, real estate industries as well.

MR. JONES: Great. Thank you. Well, at this point, I would like to proceed to the next slide to make sure you're aware of their contact information. And again, they are a resource for you. These contacts here on this page are: Debra Brucker from the University of New Hampshire and Bill Erickson, from Cornell University. And on the next slide we have Susan Dooha from New York City and Joe "Zeke" Hampton from West Virginia VR Office.

And as we wrap up, one of the things we really wanted to promote as ETA is trying to help keep the dialogue going. We actually have a disability Workforce GPS website that we hope you can join. It's a wealth of information. As you see under our featured content right now, we have more links related to disability statistics. So we encourage you to visit this site, because it will help build further what you are maybe trying to do.

Also, on this site we have a discussion list and we also have an announcement list. We always try to update our stakeholders weekly. So, we hope you can join our community of practice. We continue to collectively connect the pieces. And with that, for the next slide I do want to say thank you on behalf of ETA, thanks for joining.

We all hope that you have a safe Memorial Day weekend holiday with family and friends as we soon kick off the season of summer. Thank you again.

(END)