

NWX-US DEPT OF COMMERCE

Moderator: Deborah Rivera-Nieves
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12:30 pm CT

Coordinator: Good afternoon and thank you for standing by. I'd like to inform all participants that your lines have been placed on a listen-only mode until the question-and-answer session of today's call. Today's call is also being recorded. If anyone has any objection, you may disconnect at this time. I would now like to turn the call over to Earlene Dowell. Thank you. You may begin.

Earlene Dowell: Thank you (Erica) and thank you to Deborah Rivera-Nieves from the U.S. Census Bureau for hosting our Webinar today. On behalf of the U.S. Census Bureau and C2ER, welcome to our March LED Webinar. I'm excited to introduce and welcome back my colleague and well-regarded presenter, Jim Spletzer as he presents Older People Working Longer, Earning More.

By 2030 the U.S. Census Bureau projects that one in every five residents will be older than age 65. Statistics from the Bureau of Labor Statistics and the Census Bureau longitudinal employer household dynamic tell us that the percentage of employed older people has increased during the past two decades and these other workers are earning more than in previous years.

Jim Spletzer received his bachelor's degree in economics and mathematics from Knox College and his Ph.D in economics from Northwestern University. He joined the U.S. Bureau of Labor Statistics as a research economist and became the Director of the Research for the Office of Employment and Unemployment Statistics.

He joined the U.S. Census Bureau in 2012 as Principal Economist for the LEHD program for the Census Bureau Center for Economic Studies. Jim has published widely on many topics such as the measurement of wage trends, gross jobs and worker flows and employer-provided training.

He is co-editor of the book *The Creation and Analysis of Employer-Employee Match Data and Labor in the New Economy*. His current research interests are employment dynamics, economic measurement and applications of linked employer-employee data. Now here's Jim.

Jim Spletzer: Thank you Earlene and thank you to Spencer of C2ER. It is a pleasure to be back and to be presenting again. For those that may not know me, I am as Earlene said Principal Economist for the LEHD program and I am a big fan of the LEHD statistics.

I think that they are underutilized and I'm going to hopefully try and show you the depth of what we can do with the published LEHD statistics that are currently on the Internet. I am - oh boy, my screen is frozen.

Earlene Dowell: Just a moment, folks while we try to correct the PowerPoint presentation.

Jim Spletzer: Okay. For those of you that know me, I am not a technological wizard so I work for the Census Bureau so this is a standard disclaimer. Anything that I'm about to say I may go off the reservation and these views are definitely

my own and not those of the U.S. Census Bureau or any of my colleagues here.

Everything that I'm about to show you uses data downloaded from the Internet so there is no confidential information here. The goals that I want to set for approximately the next half hour are threefold. I want to spend a few minutes talking about the motivation for this talk about older workers.

Last year the Census Bureau I'm sorry, just a few months ago the Census Bureau came-out with their population projections and there was a big push with the Census Bureau to put-out some simultaneous tabulations about what those population projections were going to say so I want to spend just a few minutes talking about the population projections with a focus on the baby boom generation.

Then we'll talk about what we know today about older workers so I'm previewing some of the highlights of the projections. It's all going to be about older workers. I will present some statistics from the BLS Web site and then some statistics from the LEHD quarterly workforce indicators often known as QDIs.

The bottom line takeaway is essentially two-fold. Number 1, I'm going to show you some graphs and a few tables about how the labor market status of older workers is changing. It is fun to be a labor economist in a period of change. We know that in the '80s and early '90s we saw a huge change in the labor force participation of women.

Right now over the last decade perhaps two decades we're definitely seeing a change in the labor force participation of older workers. I'll show you some of those statistics. Older workers and I'll get into a more technical definition

of what an older worker is, older workers are basically working longer and they're earning more thus the title of the talk.

And the second takeaway is I hope to convince you that the QWE statistics from the LEHD program are a powerful tool for analyzing what's happening to older workers. Let's start with the population statistics from the U.S. Census Bureau. This is a table PEPSYAEXN. It's on American FactFinder.

I have it bookmarked and if I ever need to find it, I basically Google PEPSYAEXN. You can find it through American FactFinder but this is the way I get to it. It is an extremely powerful tool. I know this screenshot is extremely small font but what the Census Bureau publishes is the population in 2010, '11, '12, all the way up through 2017 by detailed age groups and by detailed age groups I mean age 0, age 1, age 2 all the way up to age 100.

That is you can basically just highlight that table or highlight certain rows or columns, bring it into Excel and in Excel it's easy to create a graph like this. This is the U.S. population in 2010. There are approximately 4 million verse or a little over 4 million one-year-olds, two-year-olds.

You can see that there's about 4-1/2 million 50-year-olds and you can see as we get into the older worker population there are less people at these older ages. Now what's nice about the table I just showed you is you cannot only look at 2010, but you can also look at 2017.

2010 is the red line, 2017 is the blue line, and the first thing that pops-out to me is look somewhere around age 55 to approximately age 80. We are seeing an increase in the number of people at these somewhat older ages. That's going to be sort of the baby boom working its way through the labor market.

Before I leave this slide, I don't know if you can see my cursor or not but this is sort of the baby boom generation working its way through right here. This is often referred to - there's a blue hump around age 30, a little red increase in the early 20s - this is essentially what's often called as the baby boomlet.

These are sort of some kids from the baby boom. You'll sort of see that little bump working its way through the population distribution so I want to be a little bit more precise about what is the baby boom. This is a graph I stole from Wikipedia and I don't know if there's an exact definition but it's often referred to by demographers that the baby boom were birthed between 1946 and 1964.

This birth generation is highlighted in orange on this graph. What you can see, what this graph is basically telling us is that the birth rate in essentially the early 1900s was falling drastically until it slowly stabilized in the 1930s and then as we go through World War II it maybe starts to increase a lot but then in around 1946 and 1947, the birth rate, the rate per 1000 people in the population definitely increased and stayed high through the 1950s.

This is what's referred to as the baby boom. Now you can sort of see the sort of little baby boomlet of 1990, 1991 burst, just a little fun fact. So as we take this definition of baby boom 1946 to 1964 births and put it back into our population chart, the highlighted in red, the dark red is the baby boom in 1970.

These were people aged - I'm sorry - the baby boom in year 2010. These were persons aged 46 to 64 and then in 2017 the dark blue part of the graph, these are people aged 53 to 71. You can see this baby boom working its way through and the nice thing about what the Census Bureau does is they offer projections of the population a decade ahead.

So I should say that the median age is getting older, that's pretty obvious from these two graphs. The Census Bureau does some population projections and this is just a screenshot of their press release. It was a press release EB1841 which came-out March 13th, 2018 and it basically says in the year 2030 that their projection point, the year 2030 marks an important demographic turning point in U.S. history.

I'm not a demographer but I just find this stuff really interesting. By 2030 all baby boomers will be older than age 65. It's going to expand the size of the older population such that one out of every five residents in the U.S., 20% will be retirement age. I don't know if you recall but back in March 2018 this press release made quite a splash.

You saw it in all the major newspapers. It has caused a lot of attention and we knew that it was going to attract a lot of attention so what our public information office did here at the Census Bureau is we said the PIL office said let's put-out some simultaneous tabulations. We know that there's going to be a big focus on these older workers.

So they came to the LEHD branch and said could you write a short story about the labor market status of older workers today? Let's look at what's happening to them today and then we can sort of use that to accompany the population projections about what's going to be happening to older people in 2030.

So I worked with several of my colleagues here, (Erica McIntar) for in particular to write an America Counts story. For those of you that aren't familiar, America Counts is a great publication where they have several per week just interesting facts that are coming-out of Census Bureau data.

So we had an America Counts story back in March of 2018 and today's Webinar is sort of an expanded version of that story so what do we know about older people in the labor force today? The first thing I'm going to do is I'm going to go to the BLS Web site and I'm going to look at the employment counts of people 65 and over.

I give you the source and the graph. It's one of the labstat series LNU02000097 but it basically shows that back in 1993 there were a little under four million people 65 and over who were working. In 2018 that number is about to hit 10 million so there has been a definite increase in the number of older workers - number of older people who are working.

Now this is a little unfair graph to talk about trends because we also know the population is rising - the population of older people working - so we sort of want to normalize this by the population size and that's the graph here on the right. This is the employment population rate show which is again downloaded directly from the BLS Web site.

We see a rising trend here which says that the number of employed is actually rising faster than the population so back in the early 1990s, 1993, '94, the employment population ratio of older people aged 65 plus was about 12%. Today as of 2018 and this is an annual average it's over 18% about to hit 19%.

So there has been a definite increase in the number of older people who are working in the labor market. This is not a gender story. The blue line is the employment population ratio of males. The red line is the employment population ratio of females and they're both increasing by 7-1/2 to 8.2 percentage points.

So the increase in the employment population ratio is happening to both genders. Now this increase is especially interesting when we look at other age groups. This graph right here is the employment population ratio. The solid red line at the bottom is teenagers 16 to 19 years old and the dashed red line at the top is the 20 to 24-year-olds.

Both of these are declining over time. Contrast that to what we know is happening for those 65-plus population were to rising over time and for the 65-plus population remember it was rising by about 9 percentage points. Here for the teenagers it's fallen by 11%.

Let's add prime-age workers to this graph which are the two blue lines, 25 to 54 and 55 to 64 again taken directly from the BLS Web site and you can start to see the employment population ratio prime age workers rising by 8/10 of a percentage point which is difficult to see on this graph but those are the difference in endpoints 1993 to 2018.

And the employment population ratio of 55 to 64-year-olds rising somewhat dramatically by 9.3 percentage points. We add the oldest workers and they are rising by 8.0 percentage points. This is an interesting graph to think about because this is what's happening to older workers over the '90s, 2000s and where we are in the 2010s.

The 55 to 64-year-olds will be the 65 plus a decade from now. Their employment rates are rising over time and while I don't have a specific demographic model in mind, one would assume that they will contribute to an increasing employment population ratio of 65 plus in the decades ahead.

Just my speculation but it's the 55 to 64 and the 65 plus, it's these trends that are rising over time. Okay, so we know that employment is rising for the older workers. What about their earnings? I want to be honest. Up to this point I've been using BLS data to look at the rising employment-to-population ratio.

I'm now going to transition to LEHD data even though the BLS does publish earnings of older workers and I don't want to hide anything from you but let me tell you why and let me tell you what the effects of this choice are. This graph shows the real monthly earnings of 65-year-old-plus people from both BLS and LEHD.

The BLS is the full-time wage and salary worker series which is a weekly measure so I multiplied it by 52 over 12 to convert it to a monthly measure and I put it against the LEHD measure which I will show you how you get from the Internet. Those two look like similar series, just there's a little divergence in the 2010s but I would call those really, really close.

Now the reason I'm switching to the LEHD is two-fold. Number 1, I work for the LEHD so I want to advertise the statistics that we have. Number 2, the LEHD comes from - I'll be a little bit more specific on this in the next couple of slides - the LEHD comes from an incredibly large sample size, almost the universe of the U.S. working population.

So you can drill down and get a lot of detail from the LEHD that you cannot from the BLS. The BLS is from the CPS survey, the current population survey and it is limited in sample size roughly 100,000 households every month. And that limits the amount of detail that you can get to whereas the LEHD one you have population of well over 120 million.

You can get a lot more drill-down. So what is the LEHD? The LEHD is a longitudinal employer household dynamics, - that's the acronym - and there is essentially the employer-employee database for the United States which is not only links employers but it also links these relationships over time.

So you can follow a specific individual as he or she changes jobs or drops out of the labor force and you can also follow firms, establishments and firms as they change their workforce and do whatever they do to try and make a profit.

This linked employer-employee datasets created at the Census Bureau from what are called the wage records and the QCW establishment data. If you want some more details, we can go into that during question-and-answers time but essentially it's administrative microdata from the state UI systems, the unemployment insurance systems.

The nice thing we do here at the Census Bureau is we enhance this data with worker demographics such as age and gender and we can also enhance it with firm information such as firm age and firm size. We publish all of this detail in tabulated form on the LEHD Web site.

Essentially LEHD is the universe of UI coverage ops, unemployment insurance coverage ops. Unemployment insurance covers well over 98% of all private sector jobs plus state and federal government so really what's missing is some small employers in the railroad industry, some nonprofit small nonprofits such as churches, there is a little isolated pockets here and there that are not covered by these unemployment insurance system.

But basically you can think of I think of the LEHD as essentially the universe. Now when we're going to use the LEHD data, there are several decisions that

need to be made. Number 1 I want to do a time series analysis and what's on the LEHD Web site is non-seasonally-adjusted quarterly data.

If you download this data, put it into Excel and create a graph, what you're going to get is you're going to get something that looks like ocean waves around some sort of a trend. These are the seasonal movements. We definitely know that the labor market in the U.S. is very seasonal, lot of teenagers come-in during the summer.

They're not there during the other seasons of the year. There is a huge employment increase in the month of December. We don't want that seasonality to dominate what I want to show as long-run 20-year trends so I can either seasonally adjust the quarterly data or I can create annual averages. What I'm about to show you is based on annual averages.

The second decision we need to make is do we use earnings for all jobs or for stable jobs and I'm going to use stable jobs which are also synonymous with you may hear this phrase four-quarter jobs so think of someone who works for three quarters at a given employer.

I've been at the Census Bureau for seven years now. I have worked for three consecutive quarters and we're going to use my earnings for the middle quarter of three quarters. What this essentially does is it guarantees that the person who's there for three consecutive quarters likely worked all 13 weeks.

So the earnings statistics are not biased by entrances into the job, hires into the job or separations from the job which could be anywhere from one week to 13 weeks on the job which would result in very low earnings for that quarter.

The nice thing about four-quarter jobs and I can show you - I don't have them in this presentation - but there's a lot of graphs about how this mimics the full-time earnings series from the BLS so I'm very comfortable with using four-quarter jobs.

Do we use nominal or real earnings? I'm going to use the GDP price deflators to convert everything to real. Okay, part of this presentation I want as a simple tutorial of how we download LEHD data. The Web site may look daunting to people but it's really not.

I actually did some statistics this morning and it's really easy to work with. I grabbed some screenshots so this may be basic for several people in the audience but let me spend a few minutes going through this. What we do is we get onto the LEHD Web site and we click-on LED extraction tool.

This is the screen that will pop-up and it lists for first choice do you want data for specific states? The red circle says I'm going to choose for national, 50 states plus D.C. The LEHD doesn't have 25 years of all states but it is a modeled estimate.

You then at the lower right continue-on to firm characteristics and then I'm going to just basically choose the default and then continue-on to worker characteristics and here I want all age categories so I'm going to click all of the age categories. I'm going to continue-on to the indicators and like we talked about, I want a stable employment. I want the full quarter earnings.

So I'm going to click EMPS which is the stable employment counts and the earn S which is the stable four-quarter earnings counts. The next screen is to choose which quarter, years and quarters I want. I highlighted that the national QWIs are not available for 2018 Quarter 1 and 2017 Quarter 4 yet.

So the time series that I'm about to show you uses annual averages up through 2016. This is the final screen. I've gone through the full extraction in roughly 45 seconds, maybe a minute right now. I will submit the request and then on the right-hand side the results of my query for those of you that can read it, I have 891 rows and as in the red circle, I'm going to click the CSV.

CSV is nothing more than an Excel spreadsheet so I'm going to open the Excel spreadsheet to CVS and this is what I get. There is a lot here that identifies what I have, gives you some data quality checks, but they're essentially several columns that I want.

I want the age group which tells me whether it's a zero which is the total, A1, A2, A3 which goes through the various age groups and then on the right-hand side I have the year, the quarter, the full quarter employment and the full quarter earnings of that specific age group for that specific year quarter combination.

Some very simple manipulations in Excel and boom, I am now doing graphics. I now have time series graphs. As we said I want to convert everything from nominal to real so I'm going to go under the BEA's Web site and Table 1.1.4 get the price index for GDP.

This allows me now to have real average monthly earnings for full-quarter workers which is graphed here, 1994 to 2016. I have the extraction literally takes about two minutes. The Excel work maybe takes an hour and I think most of that is converting, creating annual averages but this graph is computed in roughly an hour so it's not that difficult to manipulate the data.

One way that people often show earnings graphs is to index them to 100 so the graph on the right shows the exact same data but it starts at 100 in 1994. The nice thing about this is it allows us to make easy percentage calculations such as let's look at everything that happened between 1994 and 2000, the solid red line that's the vertical red line.

The average annual earnings growth from 1994 to 2000 in the LEHD, this is all workers. I haven't gone into the 65-plus yet. The average annual earnings growth 1994 to 2000 was 3.8% per year. This was very, very nice earnings growth. Since 2000 we have 0.7% average annual earnings growth.

You often hear the phrase stagnation of earnings, wage stagnation. This graph is a nice demonstration of what earnings stagnation is. We had phenomenal earnings growth in the '90s followed by much, much less earnings growth since the year 2000. Now let's get away from the entire population of workers and start looking at age-specific.

The graph on the left is average monthly earnings for 14 to 24-year-olds, the solid line and 25 to 34-year-olds, the dashed line. You can see that teenagers and young adults really don't make that much, roughly \$1500 to \$1800 per quarter on a real 2015 basis.

25 to 34-year-olds earn a little less. Now let's add the prime-age workers 35 to 44, 45 to 54, 55 to 64 again following the tabulations that were already calculated for you and available on the LEHD Web site, here we can see that these workers in 2015, 2016 are earning over \$5000 per month or an annual average if they worked all 12 months so roughly \$60,000 a year.

The graph on the right again puts everything into basis 100 in 1994 this graph is fascinating. I could do an entire Webinar on this graph. Between 1994 and

the year 2000 every single age group earned roughly the same earnings growth in percentage terms. If I have this right, this is about 3-1/2% average per year.

Following 2000 the age groups have definitely set themselves apart in terms of earnings growth. It is the prime age workers - the red line and the blue lines in this graph - that have actually had earnings growth post-2000 where it's the young workers, the 14 to 24 and the 25 to 34-year-olds that have had little if any earnings growth over the 16 years since 2000.

You will see conspicuously missing from this graph, this is the 65-plus. Let's add it here. The earnings of 65-year-olds who are full-quarter workers in the labor market has increased dramatically since 1994. In 1994 these full-quarter workers were earning just over \$2000 a month whereas in 2016 they're earning over \$4000 per month.

Their earnings growth on the right-hand side is well over 80% over these 22 years. That earnings growth phenomenally exceeds anything that we're seeing from the other age groups. Here's the exact quantification. These are the average annual earnings growth, 14 to 24-year-olds since 2000 minus 0.2% prime-age workers 35 to 44, 45 to 54, they're about .6 to .8% whereas the older workers 3.1%.

So you think about the title of this talk, older workers working more, earning more. You definitely see they're earning more in this graph and in these statistics. I want to spend my last five minutes doing sort of a deep dive to show you what's available from the LEHD and I'm not going to go into great detail but I'm going to show you what the potential is.

Let's go into industry. When you think about the LED extraction tool, what we're going to do is we're going to stick with full-quarter employment, full-quarter earnings and we're going to check all for not only age but we're going to check all and get all industries so we're going to get the age by industry matrix with employment earnings for each one of those cells.

I'll admit I did this this morning. The LED extraction tool is very quick, it took less than five minutes. The charts took about an hour to two hours in Excel so the graphs I'm about to show you were done in less than two hours. Now of course I used the LED extraction tool a lot but this is not an intimidating tool in order to get some very powerful graphs.

This graph is the employment growth of full-quarter workers aged 65 to 99 by industry. There's 19 industries. I'm only showing you the top 12 here. We know that older people are working more over the last 20 years. A lot of that employment growth is in healthcare.

There's a substantial amount in retail trade and then a good amount in accommodation of food services, professional and technical services, administrative and support services and manufacturing but really healthcare is the big one. That's where these older people that's really where the employment growth is. Now how about the earnings?

Every single one of the 19 industries shows earnings growth for the older workers. Professional and technical services, their earnings growth is just phenomenal, 1994 the older workers who were in the professional and technical services industries earned a little over \$3000. Today they're over \$7000 a month. That is phenomenal growth.

We also see phenomenal growth in manufacturing for those that are in manufacturing and good 3.7% average annual growth for those workers who are in healthcare so the situation for older workers - both their employment growth and their earnings growth - is phenomenal. If I were to summarize, let's go back to those three takeaways, the U.S. population is aging.

The Census Bureau projects that within several decades older people will outnumber children for the first time ever in U.S. history. If we look at the labor market status of older workers today, that may be a halfway decent projection for what 34e, that may be a halfway decent projection for what their labor market status will be in 2030 which is the projection date for the Census Bureau projections.

What are older workers doing today? Older people are working longer. The employment population ratio for persons aged 65 plus was 12% back in the '90s. It's over 19% today. Older people are earning more, conditional on being in the labor market. The average full-quarter earnings of persons aged 65 percent has risen more than 3% annually since the early to mid-1990s.

It is a much higher rate than any other age group and the publicly-available QWI statistics from the LEHD program, there's a lot more detail that I did not exploit in this short presentation. There is statistics by state. There's statistics by gender. You can do a deep dive much deeper than I have done here.

I definitely thank you for your interest and I believe I'm going to turn it over to either (Erica) or (Spencer) to start the question-and-answer session.

(Spencer): Thank you. While you're all preparing your questions, I'd like to take this time to thank Jim for his presentation and thank you all for joining us today. I invite you back next month on Wednesday, April 17th at 1:30 pm with (Rezo

Sidari) presents Transit Accessibility and the Spatial Mismatch Between Jobs and No-Income Residents. At this time we do have a question.

The first one is what is the coverage of the LEHD? Specifically does it include self-employed persons?

Jim Spletzer: The coverage of the LEHD as I hit on one of those slides earlier was UI cover jobs, those jobs that are covered, the firms that are covered by unemployment insurance which are largely 98% of all private-sector jobs.

As you dive into sort of the details of what is a private-sector job, it's a private sector - I should have used the exact technical phrase - private-sector wage and salary jobs, self-employed are not covered by unemployment insurance so the LEHD covers approximately 98 to 98-1/2% of all wage and salary jobs, self-employed are excluded.

Even the BLS through their current population survey and the current employment statistics survey do not include the self-employed and their earnings measure. Earnings of the self-employed is this great big black box that I don't think we know much about especially relative to what we know about wage and salary earnings.

(Spencer): Great, and I think that's going to open us up to our submitted questions through the system now.

Coordinator: All right, thank you. We will now begin the question-and-answer session. To ask a question, please press star followed by a 1. Please ensure that your phone is unmuted and record your name clearly when prompted. Again that is star followed by 1 to ask a question. To withdraw your request, press star 2. One moment, please, while we wait for questions to come-in. One moment,

please, there is a question. At this time we do have a question coming from (Jill Metlin). You may begin.

(Jill Metlin): Thank you, thank you for your presentation. Is there any data on why older Americans are working longer than historically? Is it a need or a want? Is there any information on that?

Jim Spletzer: Great question. My technical training is in economics but I sort of consider myself a statistician right now and what we do is re-record observable behavior so we can count the number of employees.

We can ask for or get through administrative records the earnings of these employed people. What we don't do except through certain targeted surveys and especially surveys with a large sample size is ask for the explanations for why people are working or not working.

One of those surveys that you can start looking at, the bottom line to your question is in the LEHD program we definitely have no why data. We can count the jobs, we can look at their earnings but we don't know why people are doing certain things.

Do they need to work? Do they want to work? I would suggest and I have not done this, I would suggest going to the TPS, the BLS Web site and look at the current population statistics and there are probably some questions about why people may be not in the labor force. Are you retired? I do not believe there are questions about why are you working?

Are you and especially for older workers, I don't believe there's any questions about do you have financial constraints that require you to work? Is your

pension not large enough that requires you to supplement your pension with labor income? I would there may be some private-sector surveys out there.

I know there's the health and retirement survey which goes into great detail about why people do certain things but through the LEHD and I venture to guess through the CPS at the Bureau of Labor Statistics we don't know why people are working and that's a great question for older workers.

(Jill Metlin): Okay, thank you.

Coordinator: At this time our next question comes from (Sarah Riggs).

(Sarah Riggs): Thank you and I agree, it was a very informative presentation. My question involves the LEHD Web site. Does it offer a tutorial and specifically one with examples that we could follow to see if we got the same answers?

Earlene Dowell: I'll answer that, this is Earlene. Yes, we do so when you go into the LEHD or at least the LED extraction tool, to the right where it says health and documentation, if you click-on that we actually have an example that walks you through step-by-step how to get you know, some kind of data that's being advertised on that.

(Sarah Riggs): Thank you.

Jim Spletzer: And this is Jim, to supplement that I believe that these PowerPoints will be stored either on the LEHD Web site on C2ER's Web site and that's why I put-in several of those slides as a mini-tutorial, grabbing the screenshots of how I created the statistics in this presentation.

(Sarah Riggs): Great, that will be helpful.

Coordinator: Next question comes from (Chris Akers). You may go ahead.

(Chris Akers): Thank you, Jim, that was a wonderful presentation. My question is similar to the first question and I'm curious if the earnings increase is essentially just due to self-selection of people who would not be earning more or who have capped-out opting for Social Security and dropping-out of the labor force.

Whereas those people that can continue to earn more by continuing to work are those that are still the 19% that are in the labor force because we still see a drop-off from roughly 80% for that prime-age working population in the labor force down to that 19% with the seniors.

So I'm wondering how much of this increase is just a self-selection bias whereas the best-educated people who have the capacity to make the most money or continue earning more stay in the labor force and those that do not drop-out of the labor force and choose retirement?

Jim Spletzer: I couldn't agree with you more and I am unable - I definitely have not even broached that topic in this presentation - and I think you would need a very serious research study to get at that and let me expand your question with one other relevant fact. The health status of older workers - correct me if I'm wrong - is increasing over the last several decades.

So people are living longer and that enables them to extend their working life so a simple composition story is that those people like -- exactly like you said -- those people that are earning a lot of money may be retiring at 68 or 69 today whereas they were retiring at 63 or 64 25 years ago.

That composition change of keeping the high-paid workers in the labor market just a little bit more could lead to that trend of earnings increase that I saw so whether this is actually an economic phenomenon where the average worker is earning more.

Or whether it's a composition effect, you're just keeping the increased employment-to-population ratio happens to be amongst the most highly-paid guys, that's something that I think you need to go into the microdata and analyze which I definitely have not done but it is an extremely interesting topic and if I can convince my boss to give me any free time over the months ahead, something I would love to look at. Thanks for your question.

(Chris Akers): Thank you.

Coordinator: Next question comes from (Dave Dugalecky). You may go ahead.

(Dave Dugalecky): Yes, thank you and thank you Jim for the presentation. My question was very close to the previous question by (Chris). My question was a little bit more general though about cohort effects, you know, as people are moving through, you know, you're not comparing the same people over age 65 now to what you were 10 years ago.

I know you said you might need a big research study to do that. Wouldn't the wage data it could be that's longitudinal data and it's identified data, correct, wouldn't that be one source of taking a look at the cohort effect?

Just a suggestion there and since my question was already asked, maybe I'll ask another one and it's a little bit off-topic was about the inflection in wage growth around 2000, do you have any ideas on what may have been generally the cause for that?

Jim Spletzer: Two good questions, let me hit the first one first. When you dive into the LEHD data, what I showed you was the two variables I took were (emp-S) the employment of full-quarter workers and (earn-S) the earnings of full-quarter workers. There is a section of possible variables that I did not extract called change in earnings where you could look at the earnings growth of full-quarter workers as they move from quarter to quarter.

That is conceptually what you want to look at a cohort but I think my immediate first reaction is if you want to look at sort of a 20-year change in the employment population ratio or a 20-year change in earnings growth, you want something more than quarterly change in earnings. You want at least an annual if not a five-year annual.

So you could look at sort of the workers today - the workers in 2017 that are earning a lot - what were they earning five years ago and then you could compare that to a similar cohort five years previous and I bet you would get exactly the answer that you sort of anticipated in your question in that there are serious cohort in the selection effects.

Unfortunately the LEHD program does not publish annual data let alone quinquennial five-year data. That is something that I'm actually jotting a note down right now to put forward for our next review and next expansion of QWI statistics so I think that would be very valuable for questions such as this.

The inflection point around 2000 I try and stay current with the economics literature and I'm unaware of one specific study that I would cite or suggest to you to read why earnings stagnated around that. Maybe someone else on the

call can correct me but I believe that this is very much an open question in economics today.

It's very much, what's really interesting is if you look at productivity growth versus earnings growth, those two have essentially been diverging since 1973. A lot of productivity gains in the U.S. economy have gone to the highest-paid workers. This is sort of one of the causes - if I can use the word cause - for inequality growth over the last several decades.

However, with regard to wage stagnation, I'm not quite, I don't hazard a guess, as to one simple intuitive reason for why we have seen the average earnings have that inflection point in 2000. I know quite a few people in the economics profession that are trying to find that answer but I'm unaware of the answer quite yet. Thanks. (Erica), next question?

Coordinator: Thank you, the next question comes from (Alan).

(Alan): Good morning. I'm going to take this in a different tack, because those over 65 spend more health dollars than any other segment of the population and the number of people over 65 is growing clearly. So the question I have is there any way of understanding the relationship between those who are employed and those who have health insurance?

And the reason for that because it's interesting to the healthcare industry is that for those who get their healthcare covered by Medicare, Medicare only pays about 80% of the actual cost of providing the services. So the (unintelligible) understanding how many of those over 65 are covered by health insurance (unintelligible). So that's kind of my rambling thoughts about that.

Jim Spletzer: I don't believe they're rambling, I think they're actually quite focused and the way that I as an applied statistician - I just lost my screen - give me one quick moment. I don't know if you see me losing my screen. Okay, as an applied statistician and the way that I would look for the answer to your question is two ways.

Number 1, you can compare macro published estimates, for example the LEHD program publishes estimates of employment and earnings by age group. I'm sure the Center for Medicare Statistics or some other health insurance trade groups or government groups would publish the amount of healthcare spending and hopefully by age groups.

The BLS may actually do that so what you can do is you can correlate the two over time and look for a correlation right there. As you suspect and had stated in your question, I bet the correlation would be quite high so really the second way to get at it is to use micro-variation and go into one of the individual datasets that ask both about employment status, earnings and healthcare spending.

And that would be the same way of washing-out individual variation and getting a much tighter, more defensible correlation about whether specific individual who's hit with a health shock or has increased health spending relative to either what they had before or what their similar peers and their cohort have are actually working more to cover that increased healthcare spending.

You would have to turn to someone a lot smarter and a lot more knowledgeable about healthcare spending than me.

(Alan): Yes, one of the problems that people are trying to address is that about 2/3 of all personal bankruptcies are related to healthcare spending.

Jim Spletzer: I don't doubt that.

(Alan): Yes, it is a big shock and part of the issue then comes that people are trying to get their hands on is that the person who's actually getting the medical care may not be the person who's working to pay for it so because it's a household issue so that's even through people who are trying to figure-out now and it's a complicated problem.

Jim Spletzer: I definitely don't doubt that but without exceeding - I've used this phrase a lot more lately than I have before - staying in your lane. My lane is to tap big data and provide employment and earnings statistics from these big datasets. I do not have the bandwidth to go into sort of correlations of how these statistics I'm providing correlate with other things but it sounds definitely interesting.

(Alan): As the curse goes, may you live in interesting times. Thank you very much, Jim.

Jim Spletzer: Yes, thanks, I like that.

Coordinator: Thank you. Our next call comes from (Cathy). You may go ahead.

(Cathy): Actually, I think everybody has covered my question so thank you.

Jim Spletzer: Thanks, (Cathy).

Coordinator: Okay, our next question comes from (Tom). You may go ahead.

(Tom): Hi, thanks. It's related to some other questions but I so our question is do we have any idea of how much for the wage growth for the 65-plus is from any increase in actual pay rates or is it more likely caused by these full-quarter workers who if I understand it correctly you could be working part-time hours like 10-15 hours or 30 or 40 hours and still be full-quarter workers.

Are they just simply working more hours in more recent years for various reasons and that's what's causing the wage growth?

Jim Spletzer: Great question, let me give you the answer you don't want and then give you the answer that perhaps will generate a little excitement. The answer you don't want is I can't tell you, I cannot answer that. I'm sure you can go into CPS microdata or some of the specialized surveys and get the answer to that.

But the exciting thing is that there are several states - Minnesota, Washington, one other that I'm drawing a blank on right now - that use hours worked to administer their UI system so when the employer says this person worked for me this quarter and earned this much, there are three states that say and the employer must also record the quarterly hours.

So what those three states have is not only an indicator of whether a specific person was employed but also how much that person earned and how much they worked. We are trying here at the Census Bureau and the LEHD program to look seriously at the hours from these states that are actually mandating hours be part of their UI system and trying to publish not only quarterly earnings which I presented here but also an hourly wage simply computed as quarterly earnings over quarterly hours.

We're not there yet but if you think into the future about LEHD is going, hopefully our statistics and hourly wage will be part of that and that would be a great expansion to answer such questions as why are earnings going-up? Is it actually their hourly wage or is it are they working more? I can't answer that today but hopefully in a few years I'll be able to.

(Tom): Okay, and just one quick follow-up, is that something that you think you would simply because I believe Minnesota is one of those states, so would you take some of that microdata from those states as kind of use that as a sample almost and map that onto other states or you really only publish the specific states that have the actual numbers?

Jim Spletzer: I think we would I'm not part of the management decision making that but from a technical point, I would be much more comfortable publishing only for the states that provide that.

(Tom): Okay.

Jim Spletzer: You can definitely impute it for the other states but using three states to impute for 50, that's a leap and I would have to see it in all the statistics before we did that.

(Tom): Okay, thank you.

Woman: (Erica)? How many more questions are in the queue?

Coordinator: Six.

Woman: Okay. We can probably take ...

Jim Spletzer: Let's do all six very quickly. I'm going to ask each of the six people with questions queued to be concise and then I'll try and wrap-up with an answer to all six.

Coordinator: Okay, well our next call is going to come from (Robert). You may go ahead.

(Robert): Hi, I have a quick question. Will this be recorded and where do you find it and thank you for your talk.

Jim Spletzer: Okay, next question.

Coordinator: Our next question comes from (Debra). You may go ahead.

(Debra): Thank you very much. I work in career services for a state university and my job is to constantly get familiar with the labor trends. You mentioned that by 2030 one in every five people will be older than 65 in the labor force. Once all those people retire, what does that mean for the economy? Are you saying that unemployment will essentially be eliminated?

Jim Spletzer: Good question, I'll wrap-up after we take the other four questions.

Coordinator: Thank you. Our next question comes from (David Drews). You may go ahead.

(David Drews): Hi, my question somewhat related to some of the others regarding composition, I assume that the data was for all workers and if there's any way to split that between full and part-time workers? Thanks.

Coordinator: Thank you. Our next question comes from (Leitha). You may go ahead.

- (Leitha): Yes, I was just thinking at age 66, people can get their Social Security as well as work so are we talking income as we look at these statistics or are we just talking the amount they made from working?
- Jim Spletzer: Great question, (Erica), great question, (Lisa). (Erica), next two questions?
- Coordinator: Great. Next question comes from (Roland). You may go ahead.
- (Roland): Hello. I just wanted to make an observation, a hypothesis on the change in the wage rate around 2000. Seems to me that the whole Y2K phenomenon was part of that. I worked in data processing and there was hiring and hiring at higher wage levels and salaries at that point and once that was all taken care of, that all dropped off. Just an observation.
- Jim Spletzer: And (Erica), final question?
- Coordinator: At this time there are no further questions.
- Jim Spletzer: Okay, my apologies to the five of you for rushing through this but we essentially asked people to donate an hour of their afternoon so we're trying to keep it to an hour. (Robert), this is recorded and it will be somewhere on the Census Web site and should also be on the C2ER Web site. Earlene, do you have more details?
- Earlene Dowell: Yes, and then we can send-out a message to all participants with the link so you provided your e-mail address when you logged-in so we'll be able to send you the link to that.
- Jim Spletzer: Thank you, Earlene. (Debra) with regard to macro effects, that it is very good question to which there is no easy answer. I know there's a lot of people

concerned about what's called the Social Security dependency ratio where if you have more older people than children, you're generating a fiscal imbalance where you have fewer workers contributing to the pension income of older workers.

The one thing I would say and this is just pure speculative and this is reading the general economics literature is that the U.S. economy has gone through a lot of structural changes over the last 100 years if not more and we've always come-out on the positive side.

When you look at technology change and all the great fears about tech and robots are going to replace workers, everyone's job is going to be offshored, that has never happened so I have great belief in the U.S. macro economy that we'll solve all problems, just I'm an optimist.

(David) I wish I could tell you full-time versus part-time. These are just people who work three consecutive quarters and I've taken the earnings from the middle quarter. Again I don't know their hours.

(Lisa) this is pure labor market earnings, what the employer pays to that individual in the quarter, there is no it is not an income concept where you add-in pension income, Social Security income, various types of wealth, fairer unemployment insurance. This is pure labor market earnings from a given work employer to a given worker.

And (Roland) interesting thought about the 2000 inflection point related to Y2K. Something to think about and thanks for your question. Thank you all for listening. I'm going to turn it over to (Spencer) for some final thoughts.

(Spencer): We'd like to thank everyone for tuning-in today for the wonderful presentation by Jim Spletzer. Your questions have been excellent and be sure to come back next month for our April LED Webinar. We thank you again for joining us and we hope you enjoy the rest of your day. Thank you.

Coordinator: Thank you for participating in today's conference. You may disconnect at this time. Speakers, please standby for post-conference.

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