

[Rural America at a Glance, 2022 Edition - YouTube](#)

Good afternoon, everyone. My name is Valerie Negron, your host for today's webinar. On behalf of USDA's Economic Research Service, welcome and thank you for joining us. Before we begin, I'd like to remind you that this webinar is being recorded and will be posted on the ERS website next week. If you have any questions, please enter them into the chat feature at the bottom left-hand corner of the screen and our Economists will answer them during a Q&A session after the presentation. Today our presenter is Jim Davis. Jim is a Research Agriculture Economist with our Resource and Rural Economics Division. His research interest center on rural development, industrial structures, job and worker earnings, and STEM (Science Technology Engineering and Math) labor markets. Prior to joining ERS he was an economist at the U.S. Census Bureau and an administrator for the Boston Federal Statistical Research Data Center. Thanks for joining us today, Jim. The floor is yours.

Thank you, Valerie. As Valerie mentioned, I'm Jim Davis and I will be presenting our newly released report titled *Rural America at a Glance, 2022 Edition*.

The 2022 edition of *Rural America at a Glance* was released yesterday, on the 15th, and was written by Anil and I who are here today as well as John Cromartie and Austin Sanders, also economists at ERS. The report is released annually, and it provides a summary of demographic and economic trends with additional topics each year that highlight opportunities and challenges facing rural America. This 2022 Edition focuses on population and labor trends over the past two decades.

Specifically, the report includes population trends with a focus on changes that occurred this past decade, the changing industrial structure of the rural economy, the rural labor force, as well as worker race and ethnicity characteristics. Forgive us for switching back and forth between the words- words rural and not-metropolitan, or non-metro, as I will use them interchangeably throughout the presentation. I'd define rural and non-metro equivalently and defined here as the set of U.S counties outside of metropolitan areas.

So, on this next slide, I just summarize what those counties are. The map shows non-metro counties in gray. The chart is not in the report itself but is available on USDA's on the ERS website. But today I'm going to be talking about rural areas as defined by these non-metropolitan counties that are in gray on this map.

So, to start, this figure presents annual population growth rates by year for the non-metropolitan economy, for non-metropolitan population, excuse me. Each value for each year along the horizontal axis represents the population growth as defined as a percentage change from the prior year.

So, if we look at the chart from the blue line, we see that non-metro total population growth rates have declined over time from the early 90s through 2021. The chart breaks the total change into two parts, contribution of natural change, which is defined as births minus deaths, and the contribution of net migration. The pink line of annual natural population growth rates steadily decreased from 1991 through to 2021. Net migration, represented by the tan line, ebbed and

flowed over time and we can see from the figure that changes in total population growth often parallel these migration changes. I focus a moment on the period between 2010 and 2020 to U.S. decennial census periods. And these are shown in the chart now by these dashed vertical lines. We see that annual population growth rates in this period were negative, or near zero, for most of the decade. This decade was in fact the first decade in which the rural population declined. The total non-metro population decrease was six tenths of a percent in the in this- in this time.

Looking forward to the year between 2020 and 2021 this decline in population changed with the onset of the Coronavirus pandemic. Net migration to non-metro areas actually increased in this year as people moved to less densely populated rural counties. This change overcame a decline in the natural change due to COVID-19 deaths to result in the first year of population growth in 10 years.

This next chart breaks out total population growth which is shown with the three bars on the very left of the chart. And these growth rates are between 2010 and 2020. It breaks out total into three age groupings: the younger- under age 18, working age people- between ages 18 and 64, and those age 65 and older. Each age group statistic- for each age groups these statistics are shown for metro and non-metro areas, as well as, for the U.S overall. We can see that the non-metro population is aging in this chart. In 2020, there were 5.7 percent fewer young people than 10 years before. There were 4.9 percent fewer working age people than 10 years earlier and an increase of 22 percent for those 65 and older. So, the first main finding of our report is- is to show from the statistics that the rural population is aging.

In this chart, we repeat the chart from the prior that you just saw, however, just focusing on the year of change from 2020 to 2021. What you'll notice is that the scale on the vertical axis shows percentages, but these are about a tenth the size of those that were on the prior chart. And what's different now, in this chart, from what we just saw is that metropolitan areas now also had negative population growth rates for young and working age people. High growth rates continued for population 65 and older and, in fact, in 2021 for the first time ever, those the 65 and older represented one-fifth of the metropolitan population.

Now we next turn to employment figures. This chart shows the distribution of employment across industry sectors, separately for metro areas, as represented by the blue charts- sorry the blue bars and for non-metro areas is represented by the tan bars. A horizontal axis, on the bottom, are percentages. So, this is an example, at the top, for accommodation in Food Services, we see from the tan bar that non-metro employment, in this industry, around is seven percent of total non-metro employment. Similarly, metro accommodation and food services employment is also around seven percent total metro employment. So, the first observation that we can see from the chart is that for most industries the employment shares are similar for metro and non-metro areas. There are, however, exceptions. Non-metro areas have higher shares of jobs in goods producing industries such as agriculture, manufacturing, and mining, when compared to metro areas. These are Industries for the tan bars are much longer than the blue ones. Conversely, metro areas have higher shares of employment in services industries such as professional services, information and finance, and insurance. And these are industries where the blue line is longer- considerably longer than the tan ones. So, this chart just offers a picture of the

distribution of where- what kind of establishments workers work in- in both the rural and the urban economy.

This next chart focuses in on the rural economy and shows figures for the largest six industries in non-metro areas. Show the progression of employment by industry from 2001 through to 2020 for the six largest employment industries. Each industry is presented over time relative to where it started in 2001. So, you'll notice, in the graph, any industry- all the industries individually start at 100 percent and then they go from there. So, for example, let's look at the top blue line which is for healthcare and social assistance and we what we see is that by 2019 employees in this industry had grown by more than 20 percent. Another large industry that showed strong growth was accommodation and food services which, by 2019, grew 18 percent. However, with the onset of the pandemic in 2020 these hospitality jobs lost most of their gains as people avoided restaurants and hotels due to social distancing. And we can see in the chart, this is the dashed-dotted tan and line and shows the fall of employment between 2019 and 2020. What one notices overall in this chart is that for these largest rural industries, half of them and notably the goods-based industries, reduced employment over the past two decades. I'll turn to that in just a minute.

This next chart is set up the same way as the previous chart with employment normalized to 100 percent at the start in 2001 so we can follow the development of employment over time for each of these industries. Here we include the top fastest growing rural industries. Fastest growing on the model is real estate rental and leasing services. This is the top blue dashed line. Where by 2020, this industry employed 51 percent more workers than it did in 20- in in 2001. These fastest growing rural industries are smaller in size than the mainstay rural industries we saw in the previous chart. However, their strong growth over the past two decades it is a shift in rural jobs into services industries.

I'd like to focus the goods producing rural industries for a moment in these next few slides. As we saw two slides ago, employment in agriculture lost 14 percent of employment between 2001 and 2020. This line is represented in the pink at the bottom of this chart, for reference. Notice, however, that rural agricultural output- output, measured as real gross domestic product in constant 2012 dollars, actually grew by 70 percent. The labor productivity fund is output for worker we see from the dash line almost doubled due to advances in technology and capital D thing the rural agricultural industry has thrived and, as we see in the chart, this industry produces a lot more with the same or fewer workers. Further see some context for the charts presented earlier.

In this chart, we see results for the manufacturing industry. The chart is set up similarly to the previous charts that we have just been looking at where 2001 where each of these series is normalized to 100 percent. So, that it's very easy to see the revolution in percentage terms over time. And so what we see for manufacturing is a similar story to that we just saw in the previous slide for- for agriculture. Where over the past two decades- over the past two decades output, in the world manufacturing industry, is growing from the dashed tan line we see that non-mender-non-metro, excuse me, non-metro manufacturing increased by 20 percent from 2000 to 2020 and similar to agriculture labor productivity- manufacturing labor productivity also saw substantial

growth. What is happening is a reallocation of rural labor out of goods producing industries and into services producing industries.

So, another interesting industry that I just wanted to touch on for a minute was- is mining. Over the past two decades this turned out to be a bit of a boom-and-bust industry, from a labor perspective. We see in the chart, a boom employment, largely driven by oil and gas exploration and so-called conventional drilling, or more commonly known as fracking. For 10 years from 2004 through 2014, notice that output- the dashed tan line lagged in employment is prospecting and drilling proceeded. Then remains strong through 2020 as well as came in line and continued producing. Once going these operations required fewer employees to keep them going and we see labor productivity increased in in the late- latter years in this chart.

The last section of this year's *Rural America* report presents information about the racial and ethnic composition of the rural workforce, as collected in the American Community survey which is administered by the U.S Census Bureau, part of the Department of Commerce. The figures used to generate this chart place workers in one race or ethnicity category. The workers, for the purpose of the statistics of this chart, are either Hispanic and if they're not Hispanic then they're classified according to their reported race on the survey. The chart gives us an idea of the distribution of workers in the rural economy by race and ethnicity in 2019. Workers were over 80 percent of the rural Workforce in 2019 and are omitted from the chart. Each bar represents the percent of workers in that industry by each of race and ethnicity categories. What percentages are given not the horizontal axis at the bottom of the chart, Hispanic workers, we can see from the chart, are greater share of workforce in agriculture and in hospitality than they are in healthcare. Black workers are fairly evenly distributed across the largest fixed rural industries, which are the ones shown in this chart, with the exception of agriculture where they are less represented.

If I produce a- this next chart goes results- results however now for the fastest growing industries in the rural economy. These six fastest growing employment industries are the same as we saw in the prior chart a few slides back. If we look at these six fastest growing employment industries we see that Hispanic workers are 13 percent of the workforce in 2019 in the history of administrative support and waste management services. The chart- this chart gives us a sense of the differences in the distributions of minority workers within these fast-growing industries. What's really interesting- however, this next chart, which shows that the rural economy became more diverse in the recovery period following the Great Recession and before the Coronavirus and again, this is the period between 2012 and 2019. Employment of workers increased at this time in many rural industries, as shown in the chart. However, for most industries, the employment growth rates were higher for all other races and Hispanic workers taken as a group. As we saw from the previous two charts, there are fewer rural workers of all of the races and Hispanic, however their job growth rates were higher than for white workers as shown by the longer tan bars that represent growth with- in this chart.

So, to summarize, first, we find that the rural population is aging. In 2021, people 65 and older more than one-fifth of the world population for the first time, up from 16 a decade earlier. The rural working age population declined almost five percent from 2010 to 2020 due to the aging of the baby boomer generation, out-migration, and declining fertility rates. The rural young

population also declined, such that there isn't a generation of rural children will grow up to reverse the declines in the working age population. We found annual population growth rates to be near zero over the last decade, a trend was reversed with the onset of the Coronavirus pandemic due to an increase in rural immigration from 2020 to 2021. Between 2010 and 2020, the rural population declined about a half percent. And because of the change in migration patterns rural population growth rates reversed and the world population, in fact, increased a quarter percent between 2020 and 2021. Increased immigrant in-migration, in fact, overcame a decrease in the natural population change that occurred due to pandemic death.

Our second main set of findings, we also presented evidence in the report of a reallocation of rural jobs out of traditional mainstay rural industries, such as manufacturing, and into growing services industries such as rural goods. Producing industries increased output over the last two decades, however, required fewer workers per unit of production to do this. Employment increased in the growing healthcare hospitality and other service industries.

Finally, we found the rural workforce became more racially and ethnically diverse between 2012 and 2019. Workers of all other races, and Hispanic workers taken together as a group, became an increasing share of the rural workforce. Breaking this down by industry, employment growth rates in this period were in fact greater for all of the races and Hispanic workers in every rural industry where employment was growing.

So finally, this year's *Rural America at a Glance* report was released yesterday and is available on the ERS website. Naturally, I encourage you to read it if you have questions and wish to reach us, we have included our email addresses on the slide. And we'll also, of course, next begin question and answer period of the webinar. And so with that, I will now turn the webinar back over to Valerie.

Thanks, Jim. We'll go ahead and open the floor for questions now. As a reminder, questions can be submitted through the chat feature located at the bottom left-hand corner of your screen. Before we begin, I'd like to introduce our panelists Anil Rupasingha who will be supporting Jim with today's question. Anil is an Agricultural Economist who also serves in a Resource and Rural Economics Division and one of the co-authors in this year's edition of *Rural America at a Glance*. Thanks for joining us, Anil.

Now Jim, for your first question: I noticed in some of your charts you focus on 2019 data and in others you show the data through 2020. Why the difference?

Thank you, Valerie. This is a good question. For the employment graphs, we're often using data—well for the employment graphs, we're using data produced by the Bureau of Economic Analysis, which is part of the Department of Commerce, and the BEA produces statistics for the national accounts including gross domestic product. And though they have released these for more recent years for the entire U.S. economy the— the regional statistics we use for non-metro industry measures are currently available through 2020. So, 2020 was an unusual year because of a relatively extensive employment decline in some industries due to the Coronavirus pandemic. We focus on 2018 as a more representative year for rural labor force. In this report, we're focusing on broad changes over time and so, on the effects of the pandemic itself, the pandemic

was extensively covered in last year's *Rural American at a Glance* which is available on the ERS website.

Thanks, Jim. For your next question: what is included in the administrative industry? So, what in other words: what kind of jobs are those?

Thank you for that question, Valerie. Administrative- the administrative industry actually includes- it's defined by the North American Industry Classification System, or commonly called NAICS, and so this industry is makes a list which includes an administrative and support and waste management and remediation services. So, includes a number of- of different things which are establishments in office administrative services, facility support services, employment services, including temporary health services, business support services, such as telephone call centers, or business service centers, credit bureaus, collections agencies, travel agencies, and so on. So, there's a lot of things that are included in- in this industry and the NAICS definitions are easily available on the web or our web pages as well as other statistical agencies web page if you just search for NAICS. It'll give very detailed descriptions of what are included. Throughout this report, we used these two digits makes classification definitions to define the industries used for the statistics.

All right, here's another question: how is net migration calculated?

This is a good question and for this I'd like to introduce Anil into the discussion. Anil, would you be willing to take this question?

Sure, Jim. Thank you for that question. So, we calculate the net migration it is the difference between the total population moving into a particular county and the total population moving out of that county in a given time period.

Thank you, Anil and thank you, Jim. Next up: what was the loss of population in non-metro areas over 2010 through 2020 because of more deaths than- than birth? Or because of net out migration?

Thanks for the question. Anil, I'd like to ask if you would be willing to answer this question as well?

Yeah, thank you, Jim. Thank you for that question. It is a great question and, as you may have seen, in the charts like both have a downward trend, the natural growth rate and the growth rate due to difference between out-migration in-migration but the- the change due to migration is, you know, going down faster than the natural growth. So, the- the main reason is due to out-migration from rural counties.

Thank you, Anil. Jim for your next question: what is the definition of non-metro, I mean, how much drive from the city center?

Thank you, Valerie. I'm sorry, what was the second half of the question?

Sorry, the- the question is: what is the definition of non-metro?

Yes, thank you. The definition of non-metro is as defined by counties and is a definition that is produced by an interagency group headed by the Office of Management and Budget. And if we just look back at, briefly, at this map of the United States. The non-metropolitan rural areas are defined by all of these counties that are shaded in gray in this map. The definition of a metro area are places where the core city of 50,000 or more population. And then, metro areas are- are include the central counties as well as surrounding counties based on patterns of commuting, as well as density out from these core metropolitan areas.

Thank you, Jim. Your next question is: I know you went through this but can you again tell us which industry is the largest in rural areas and which industry is the fastest growing in rural areas?

So, thank you for the for the question. First, let's start with the fastest growing industry. We found the fastest growing industry was in fact the real estate and rental and leasing industry, as shown in in the chart by the blue dashed line. And this industry, as well as many services industries, actually quite- grew quite substantially, between 2001 and 2020. The largest industry can be seen in the chart before, and though this doesn't have the industry sizes, most workers in fact work in the government sector which includes federal, state, and local government, and all government kinds of functions. And this very large industry, as we can also see from this chart, over time has actually been fairly steady, over the last couple decades. The large industry, but it hasn't been growing or declining substantially in- in the last number of years.

Thanks, Jim. During your presentation you mentioned that long-term decline in rural manufacturing employment has reversed somewhat since 2010. Could you elaborate more on the reason behind this change?

Sure. So, we can go back to our manufacturing chart and we- we didn't explore extensively in this sort of summary report, all of the things going on in the manufacturing industry. Specifically, but certainly we can see in- in this this chart by the pink line from 2010 to 2019, before the pandemic hit, that there was a recovery of manufacturing employment in rural areas and certainly one part of this recovery would have been recovery in jobs as a result of the recession recovery from the Great Recession, which occurred leading up to the trough of employment in 2010. So, part of this is just economic recovery following recession and- and what we also see from this chart which is- which is important is that following the Great Recession we saw a recovery in output in the manufacturing sector in rural areas as well. Importantly, manufacturing growth after the Great Recession increased more quickly than did then did jobs in the manufacturing sector.

Thanks, Jim. Next, we have another question on migration, net-migration seems to have a big impact on rural areas growing now. You looked at industry with increasing employment. Since a lot of work may now be less tied to location, what emerging forces are drawing people to rural areas? What roles... so yeah... what emerging forces are drawing people to rural areas?

Anil, would you like to answer this question?

Sure. Thank you, Jim. Thank you for that question. It's a great question. That is, unfortunately, not something that we investigate in this report but definitely worth through the investigation. So, we don't really look at why or what are the factors behind this in migration into non-metro counties in recent years.

Thanks, Anil. The category of all other races means all races except white and does include non-white Hispanic since Hispanics can be of any race, correct?

Yes, Valerie. That's right. The statistics that we're using for race and ethnicity codes will- will separate people- workers into one or the other of any of these categories and we did put all those that reported themselves as Hispanic, regardless of their race, into the Hispanic category for the purposes of the of the figures that we presented in the charts today. So, that's right.

Thank you. Do you break down the information by state? In particular the rural migration during the the pandemic? Let me repeat that again, Jim. Do you break down the information by state, in particular the rural migration during the pandemic?

Anil, would you like to take the question?

Yes, in this report we kind of- we did not look at the state level changes with respect to the migration or the population change. So, we basically look at metro counties and not metro counties as two groups but definitely on the information is out there. If someone wants to take it for further investigation you can get information at the state level.

Thank you, Anil. Has non-metro growth outpaced metro growth as it did in 2020-2021 at any other time in history?

Yes, thank you for the question. That that that's a good question. I have actually looked at all the historical figures all the way back to be able to say definitively whether- whether that's- that's true or not. There have periods of strong rural growth and as well, of course, as strong metro growth as well. And- and I don't just- don't have those numbers at the top of my head at the moment but it's an interesting question.

Thanks, Jim. Next question: will there be any updates to the rural atlas data file to include 2021 data? The most recent update to the data file was June 8, 2021 and includes 2020 employment data.

Yeah, thank you for the question. We plan to update figures as the data become available. Of course, all of the data we use have different release dates and- and I don't know the particular timing of plans for the rural atlas specifically. But as new data become available certainly are- are regularly updated statistical products will include those and- and incorporate them, you know, going forward. I'm sorry that I don't know the actual timing off the top my head. I don't actually- I'm not personally involved in the production of those particular products.

Thanks, Jim. Next question: do you have the jobs and labor data available by gender? Currently, and over time. I know that this is not in the report, but the viewer is wondering if it's available.

Yeah, thank you for the question. So, the- the breakdown of jobs by race were data that we used from the American Community Survey as published by the U.S Census Bureau and repackaged by University of Minnesota in their IPUMS group. So, these data are available for people to- to download and work with and I encourage you to do that. The only thing I'll say is that the one of the reasons that we focused on changes, for example, between 2012 and 2019, rather than going further back than 2012 is that sometimes there are definitional changes in- in what in- in the rural definitions that can make for some discontinuities in the- in the time series. So, just keeping those in mind there's certainly a lot that can be done with those data and they are publicly available.

Just to... after what Jim said there's another data that is publicly available from Census Bureau is called LODES data L O D E S it is abbreviation for, I don't really remember all the words but it's longitudinal origin destination statistics, or something similar to that. That data set does have the census block level employment numbers for race-based and residence-based for race, ethnicity, education levels, gender, and industry level, and a couple of more on aspects.

Thank you, Anil and thank you, Jim. For our next question: where has rural in-migration been the highest?

Definitely...

Here's a question, and I'm sorry Jim. Yeah, I was saying that's a great question but that is not something that we looked at in this report, but definitely the data used for the report you see you can further investigate, and we should be able to answer that question.

Thanks, Anil. Is most of the rural population growth due to in-migration into micropolitan counties versus other non-metro counties?

Anil, I'll have you answer this as well.

I'm sorry, Valerie. Could you repeat the question?

Sure, no problem. Is the most of the rural population growth due to immigration into micropolitan counties versus other non-metro counties?

Yeah, that is again a good question. That is also in this report we look we lumped together those rural counties together the counties that are adjacent to metro areas and also remote and so we didn't really look at the micropolitan area counties separately so we cannot really say anything with respect to that without looking at the data.

Thank you, Anil. Do real estate services include both commercial agricultural... excuse, me let me repeat that again. Do real estate services include both commercial / agricultural real estate, as well as private homes?

Thank you for the question. Yes, the- the rural sorry, the real estate sectors defined by NAICS does include both business and private, you know, establishments working in these industries that focus on business clients as well as personal clients.

Thanks, Jim. Would you be able to elaborate a bit more as to how these are broken down?

Yeah, so what I recommend actually is to- to actually look at the NAICS definitions, the one I often use is presented quite well on the Census Bureau website. If you search for Census Bureau NAICS and then click on say the 2022 NAICS definitional classifications, it will show all of the two-digit NAICS industry categories and then you can drill down into any of them and get a really good sense of all of the types of establishments that- that are- that are included in- in that industry classification. Of which there are quite a few different kinds.

Thanks, Jim. For your next question: do you have this aggregated data on manufacturing jobs by more specific sub sectors?

We- we didn't break out manufacturing in this report into smaller industry classification groupings for the purposes of generating the analysis sort of, or the statistics, the- these data do exist in public sources, however, we didn't- we didn't really pursue that for the purposes of preparing this report.

Thanks, Jim. What's- what's driving such dramatic increases in labor productivity? Worker effort or technological advances, perhaps?

Yeah, that's a that's an excellent question and- and actually likely an area of study innovative- in and of itself. We didn't specifically drill down or explore into these drivers for changes in labor productivity as part of this project. Certainly, technological advance is- is front and center in- in some of it, but there may be other contributing factors as well. So, I apologize for not having a more in-depth or clear answer on that question, because it's an excellent question, but that wasn't really the design of our study for this report to really drill down into those contributing drivers for- for these changes in labor productivity.

Thank you, Jim. You discussed industry growth rates in the charts. Did the growing industries make up for employment losses in the traditional industry, such as manufacturing and retail?

Yes, that's a great- a great question. So, overall, in employment from 2001 through 2019, in- in non-metro areas, grew by a little over four percent. So, before the pandemic hit it- it is the case that this reallocation of jobs, out of the goods producing sectors, was to a large extent made up by growth in jobs in- in services sectors. Then when the pandemic hit, some of these gains were lost. I'll say even temporarily lost between 2019 and 2020, given that 2020 was an unemployment trough because of a downturn from the pandemic. But we also know that that many of those losses were somewhat temporary. So- so overall, certainly for the period from 2001 to 2019, we did see some modest growth in in overall employment in the rural economy and- and so it was the case that growing industries were producing jobs at enough of a rate to overcome the losses from industries that had declining employment.

Next question: regarding the agriculture industries increase- increases in labor productivity and output, but decreases in employment, were those patterns spread across all rural regions / states? Or were they concentrated to a specific region?

Yeah, that's a really good question. And as Anil pointed out in a different context just a few minutes ago, we didn't actually dig down into the regional differences within these overall trends. So, in a simplistic sense yes, I'm sure that there were this heterogeneity in- in these

growth rates across different regions. But for the purpose of this report, we- we just didn't explore those in any meaningful way. Not to suggest that they are not very interesting. Sorry, go ahead.

Just to add to that, what we are finding in this report is like a long-running trend in agriculture under increase in our little productivity due to use of machinery that has been increasing for almost like one and a half centuries. And also, you know, the new high yielding variety that has been common and due to those two factors, the labor productivity in agriculture in general have been increasing over time.

Thank you, Anil and thank you, Jim. Next question: is the employment data by place of work or, excuse me, is the employment data by place of work or place of residence? How do you account for people who work outside of the place they live?

Yes, thank you for the question. In this report, for the worker characteristics we defined the rural areas based on the place of work. So, all of the employment figures are constructed by the Bureau of Economic Analysis using workplace data, as well as non-employer data which they combine for- for their employment figures and then all of the person characteristics on race and ethnicity were constructed using place of work codes in the American Community Survey. So, all of the focus on all of those results that were presented were- were all using place of work definitions for rural areas.

Thanks, Jim, and for our last question: you mentioned that overall population growth and rural counties increased rapidly during the pandemic year, but you also showed that young working age populations declined in the pandemic year. Isn't that contradictory?

Thanks for the question. Anil, is this a question that you'd like to address?

Sure, Jim. That is the great question. The increase in net migration into non-metro counties during the pandemic added to the non-metro working youth population. But that was not enough to upset the number of residents turning 65 during this time period, at the same time period.

Thank you, Anil. Alright, that's all the time we have for today. Thank you, Jim, for a great presentation and thank you to our listeners for taking time out of your day to join us. We hope this has been helpful.

We also would like to invite you to two of our upcoming webinars. The *December Farm Income and Financial Forecast* on December 1st and *America's Farms and Ranches at a Glance* on December 6th. If you would like to register or learn, more please visit the ERS website at www.ers.usda.gov/conferences.

Lastly, if you haven't done so already, we'd also like to invite you all to download the new ERS chart of note mobile app. With this app, available free of charge on Apple and Android devices, you can receive digital snapshots of ERS research delivered straight to your mobile device.

In addition to our website and charts of node app you can find more ERS content on our social media sites like Twitter and LinkedIn. Again, thank you for joining us today, and this concludes our webinar.