

**Transcript for Rural America at a Glance Webinar
November 17, 2017**

Good afternoon everyone and welcome to our webinar, Rural America at a Glance. 2017 edition. My name is Kellie Mendonca and I will be your host.

Our speaker today is John Cromartie. John is a geographer with ERS Resource and Rural Economics Division. He holds a PhD from the University of North Carolina at Chapel Hill. John conducts research on rural population change, rural housing and rural urban classifications. As an expert on rural definitions, he has developed new classification schemes and briefed policymakers on definitions used in USDA's Rural Development programs. John is a member of the Association of American Geographers, the Population Association of America, and the Rural Sociological Society.

During today's webinar, if you have a question, please type it in at any time using the chat feature located in the bottom left-hand corner of your screen, and John will address it during our questions and answers after the presentation. I think we're ready to start so John, you may begin.

OK, thank you, Kellie. Hello and welcome to this webinar on the 2017 Edition of Rural America at a Glance, which ERS published yesterday. This is the latest in an annual series that summarizes economic and social trends affecting rural communities, with shifting topics and themes each year that highlight current challenges and opportunities in rural America. The broader ERS At-a-Glance series also includes specialized publications such as recent ones on Rural Manufacturing and Rural Education. This useful publication covers a range of topics, including how world definitions are changing over time, population trends including a new section on mortality, employment by industry, sector income and poverty, and a section on rural infrastructure that focuses on broadband use in rural areas.

So jumping right in, this initial map is meant to make two points. First, it's helpful to show that we are defining rural here at the county level using the current set of non-metropolitan counties shown here in yellow. In this presentation, I will be using the terms "rural" and "non-Metro" interchangeably. Non-metro counties include 14% of the population distributed across 72% of the U.S. land area. A second point here is that rural America is not a static entity-- we are an urbanizing country which means rural territory has shrunk over time. Over the past century, the United States transformed from roughly 35% metropolitan in 1900 to around 85% metropolitan today. On this map, metro counties are shown in two colors: those that were metro in 1980 in orange, and the blue counties which show the extent of urbanization just since 1980. The blue counties are where existing metro areas expanded and where new ones formed since 1980. So over the long term, this reclassification of what are usually fast-growing counties from rural to urban status, contributes to slower rural population growth and generally means the remaining rural counties possess fewer economic development options.

This is an overlooked trend that has contributed to slower world population growth over the long term, so moving to our discussion of recent population change, census data shows six consecutive years of overall population decline for rural counties, with nearly 200,000 fewer people in 2016 compared with 2010. The annual rates of population decline have been quite small, but it's not evenly distributed across the country. Counties declining in population shown here in blue lost nearly 800,000 residents, while growing counties shown in light and dark brown gained nearly 600,000 residents. Counties in the middle of the country in the Great Plains and the Corn Belt have seen population loss for decades. What's new in terms of the pattern of population loss is its extension into the eastern United States, so four decades prior to the recession there would be only one or two states east of the Mississippi with declining rural

populations. Today there are only four eastern states with rural populations that are growing now. Two factors that are contributing to this downturn in the East: First is the decline in suburbanization. In the past, you would see rapid growth in rural areas around the edges of cities like Atlanta or Nashville Columbus or Indianapolis, and that's just not happening right now. And second, you have the loss of manufacturing jobs in rural counties throughout large sections of this this part of the country now.

Population growth is a trend, primarily in two types of counties; both of them concentrated out west. First you can see the effects of the oil and gas boom in the northern Great Plains in south-central Texas, and in west Texas and elsewhere. Second, you have counties with scenic amenities and recreation economies that did continue to attract new residents, but at rates of growth that were well below pre-Great Recession rates. Now I should point out that this map is showing population changed for the entire period of 2010 to 2016. If we were to map just the last two years of data, say 2014 to 2016, we would see two big changes among these growing counties: First, there's been a considerable drop-off of population growth in the oil and gas counties in line with recent production cutbacks, and second, there's been a noticeable population increase in recreation counties so there are initial signs of a population rebound in some parts of rural America.

So why is this first-ever period of rural population decline happening? It helps to look at the two components of population growth separately. Natural change, which is births minus deaths, and net migration. So we're in a period when the increase in population from natural change no longer exceeds the decrease in population from net-out-migration. Net-out-migration rates have been much higher in past decades in the 50s and the 60s, and even in the 1980s, but natural increase was always high enough to offset these losses, and that's no longer the case.

Over time, there's been a steady decline in the contribution from natural change in rural areas for several reasons: First, you have persistent out-migration of young adults over several decades that has aged the rural population, which means that there are fewer births than and more deaths, all else being equal, but in addition to that, world women of childbearing age are having fewer children on average. And this is in line with national trends. The long-term decline in fertility rates, we see this across the world by the way, and in most developed countries accelerated during the Great Recession in both rural and urban areas, as many couples were postponing having children amidst the economic uncertainty now. Increased mortality among working age adults is a more recent trend contributing to lower population growth.

This graph shows the change in rural mortality rates over 14 years from around 2000 to around 2014 for specific age groups ranging from less than 1 on the left of the graph to above age 75 on the right side. So this is change. For instance, the highest data point shows that rural mortality increased more than 20% for 25 to 29 year olds, and this is from 135 deaths for a hundred thousand people to 165 deaths per 100,000 people. The mortality rates in rural areas increase for all adults between the ages of 20 and 54. In urban areas, the increases were limited to young adults between the ages of 20 and 29. Now this is a unexpected, and in many ways a turn-around in mortality rates after a century or more of steady declines.

There are several interrelated factors that have contributed to this trend, including the rise in prescription medication abuse—especially opioids—and the more recent related rise in heroin overdose deaths. Heart disease, cancer, and other natural causes of death are also increasing. Now if this age specific pattern of death continues, it will not only decrease the population overall but, it will increase the dependency ratio in rural areas. That is the number of people likely to be not working, children and

retirees relative to the number of people likely to be wage earners. Moving now to look at employment trends, we see that after six years of economic recovery, increases in rural employment remain limited.

This graph shows the change in the level of employment in urban and rural areas separately from 2001 to 2015, and the data points are relative to their employment level in 2001, which makes comparing metro and non-metro areas easier. The recession years are shown in gray, so what we see is the Great Recession's impact was equally severe in urban and rural areas. They both show declines of around 2% a year during the Great Recession period. But subsequent job recovery has been much slower in rural areas--less than 1% per year compared with almost 2% in urban areas. The same type of pattern occurred prior to 2007, that is, similar rates of job loss during a recession and its aftermath, followed by more rapid urban employment growth during the recovery period. So this slower rate of job growth, both before and after the Great Recession, means that rural employment did not return to its 2001 level until 2015--four years after urban areas did.

So comparing the two end points of the of the blue, non-metro line, we can see that rural areas saw a very small net gain of only about 86,000 jobs during this period. The next section will show that these trends did vary considerably by industry. So rural economies, of course, have historically relied on goods production, farming, mining, and manufacturing. Farming and mining are, of course, still major rural industries in terms of production and revenue, but due to productivity gains over the decades within those industries and more rapid growth in other sectors, farming and mining now provide less than 5% of wage and salary jobs in rural areas; 9% if you include self-employment. Fifteen percent of jobs are still in manufacturing, though the share has declined significantly since 2001. The majority of rural jobs are now in just three service sector industries: education and health; trade transportation and utilities; and leisure and hospitality.

Now this complicated-looking graph shows rural employment change by industry, but with each group of three bars it's also telling a "What if?" story. The blue bars show actual employment change between 2001 and 2050 for rural areas. For instance, that first blue bar shows the 86,000 net gain over all that we saw on the previous graph. The orange bars show the expected change that would have occurred if rural employment had grown at the national rate, and the gray bar is the difference between actual and expected change which shows whether or not rural areas had any kind of competitive advantage in adding jobs in a given sector.

So the blue bars show that job loss in manufacturing, that third group, was offset by growth, primarily in services. Agricultural and mining did add around 130,000 jobs during this time, primarily related to the boom in oil and gas extraction, so all of the three service sectors I mentioned in the previous slide as important world sectors--the last three groups of bars on this chart--all three of those added jobs since 2001. But they grew below the urban growth rates for those sectors. If they had grown as rapidly in rural areas as in the nation overall, there would have been an additional 900,000 jobs in just these three sectors alone.

So to the extent that employment in these sector's service areas are dependent on local demand, the slower rate of growth we see here is tied to the slower population growth we saw earlier. Other sectors such as producer's services showed a competitive advantage in rural job creation, thus the number of jobs in those sectors was higher than expected, given national trends. In addition to lower job growth, household incomes are also substantially lower in rural areas than in urban areas, and they've been slower to recover from the Great Recession. Lower incomes equate to higher poverty rates, especially in the South where nearly 22% of rural residents live in families with below-poverty income. The higher

incidence of rural poverty relative to urban poverty has existed since the 1960s, when poverty rates were first officially recorded, and that the rural urban gap has closed significantly since then is now around three percentage points' difference.

This map shows the extent to which rural poverty is regionally entrenched. Fifteen percent of all rural counties are persistently poor shown here in yellow compared with just four percent of urban counties. ERS defines persistent poverty counties as those with 20% or more of their population living in poverty over 30 years. Nearly 85% of these counties are in the South. Rural poverty is also entrenched in parts of the southwest and in the northern Great Plains. ERF county topologies, of which this is one, are updated each decade following the decennial census, so persistent poverty is measured here from 1980 to 2011.

When we compare these counties, this set of persistent-poverty counties with new high-poverty counties, based on more recent data covering the Post-Recession period 2011 to 2015, we see there are 71 high-poverty rural counties that were not high poverty at any of the four points measured from 1980 to 2010.

For 2011, these counties are shown in red. Only a few of them are located in or around existing persistent-poverty regions. Many are in regions that are typically more affluent, including Northern California and places in the southeast of the Midwest that have been affected by the loss of manufacturing jobs. The final section of the publication is on Rural Infrastructure, specifically on trends in broadband use in rural areas. This graph shows that broadband use in rural areas increased from 2 to 61% between 2001 and 2015, with most of the growth occurring before 2010. The growth in red--broadband subscriptions--slowed considerably in both urban and rural areas after 2010, despite increased availability, and, perhaps this is due to factors such as connectivity through other means such as cell phone service. Despite this slower rate of growth, since 2010 county level data indicate that rural household connectivity continues to improve and expand geographically.

This map is showing that between 2010 and 2016 the number of rural counties in which fixed broadband subscriptions exceeded the rural average (which is 60 % of households connected) increased from 281 counties--the light orange counties--to nearly 1,200, adding the dark orange counties. So these newly added counties are concentrated in the Northeast, the Upper Midwest, and the Intermountain West. Extensive parts of rural Appalachia also saw improvement in broadband access to above 60%. So, broadband use remains more limited.

Looking at the Green County remains more limited in two types of rural regions. First, there are isolated, sparsely settled counties in places like the Great Plains, Nevada, New Mexico, Alaska; and second, there are high-poverty, high-minority regions such as on tribal lands in the West and in southern counties stretching from Virginia to East Texas.

That concludes the presentation. The link here is to the ERS home page, from which you can do a simple search on rural America at a Glance to find this new publication. I am happy to answer any questions.

(Kellie) Thank you John. I just want to remind everybody that this webinar is being recorded, and you will be able to hear it and look at the slides in about another week if you go to our website, www.ers.usda.gov/multimedia. Save that link.

(Kellie) All right, John, we have a question: Where would rural jobs be, and what kind of jobs are they? Like, are they farming; are they industrial?

Boy, that's a very good question. I mentioned the sort of the energy sector boom that occurred over the past 10 years and that really concentrated employment growth in specific regions of the country where there was shale oil and gas extraction going on. Non-conventional approaches to oil and gas and that showed a bit of a "boom and a bust" trend, so that job growth has fallen off, in line with production cutbacks. The jobs with the job growth are mostly in services, and a lot of that is simply tied to where population growth is happening. So more people mean a higher demand for stores, for teachers, for public services, and that's what generates that sort of local consumer demand; generates a lot of jobs as well. There is growth in manufacturing in some regions, especially on the more innovative end of manufacturing production. There has been some uptick in that sector, but that's a very difficult question. I mean that question has many parts, so I hope that answer was helpful.

(Kellie) Great! We have another question: Is there a distinction between the quality of jobs that are presently being created versus the jobs that have been lost?

I've seen a lot of research on that. A lot of people have concerns about that. The particular data sets that we work with to track employment change don't allow us to get into that. It requires other data to do that type of research, but I have seen that as a concern, not only with the average salaries of jobs being created versus jobs being lost, but also full-time versus part-time jobs.

(Kellie) Here's a follow up question from Tim: Has there been any research done on what constitutes a living wage, and the impacts on a rural economy if a living wage were payed?

Yes, I believe there has been, but I am afraid I have to confess as I'm not familiar with what has been found. You know, what the findings are, specifically for rural areas. So if you want to follow up with me on that by sending me an email, I can certainly put you in touch with people who are looking at that question and with work that's been done in that area.

(Kellie) Good! And here's a question from Rachel: Does this report say anything about rural health disparities, or is there a different report to look at that?

For that, there will be reports coming out that look in much more detail at this, at the mortality trends, and what's behind that from ERS. We also have research going on in terms of the importance of rural hospitals for rural economies, and we have colleagues looking at a whole array of issues related to the differences in access to health care in rural areas. It's a big concern, for instance, with the National Cancer Institutes, which is starting a major research effort to look at differences in cancer outcomes for rural versus urban populations. So there's a lot going on in that in that area.

(Kellie) We have a question from David: What hurdles keep researchers from using a smaller (like micro county level of) analysis? What are potential benefits of a smaller level of detail?

Oh boy, that's a great question. I think there are a lot of potential benefits. Using "non-metro counties" as the proxy for "rural" definitely has some very challenging limitations, particularly in leaving out rural areas that are part of larger metropolitan counties. This is especially a problem out West where you have places like the entire Central Valley of California designated as metropolitan, so working at the county level does create challenges for doing research on rural areas. We have sought to get around this with classifications that look at how rural and urban divides at the sub-county level, so we have a couple of classifications that try to address that. The problem is with availability of data, and it's especially true with availability of economic data on job trends and income, which are pretty much the

annual series. It's pretty much limited to county level data--that's where we really run up against a wall in terms of trying to switch to a more detailed level of analysis. It's primarily the economic side that creates that barrier.

(Kellie) Here's a question from Kenneth: Traditionally, rural population loss was more prevalent in remote rural areas. How do the patterns for 2010 to 2016 compare to these historical trends?

Oh, that's a very good question. What we saw in terms of what looked like sort of the impact of the recession on the geography of population change in rural areas, was quite dramatic. We saw, first and foremost, this downturn in suburbanization. And suburbanization often occurs in rural areas. As metropolitan areas have expanded over the decades, they're expanding in rural areas, and the most rural counties with the most rapid growth have, in the past, been those counties around the edges of expanding metropolitan regions. And that trend pretty much disappeared after the recession. Although we've seen a small amount of a rebound in the last year or two in the suburbanization trend, it's still at a fraction of the rates we saw prior to that. The other big change is simply recreation counties, whether they were densely settled or even more isolated. If you were a County with scenic amenities and you were attracting people for tourism, retirement, or recreation, those counties were likely to have much more rapid growth over the past decades than other types of counties. And that trend also weakened quite a bit after the Recession. And as I mentioned, we are seeing a bit of a rebound in recreation counties in the last couple of years. So that's really very much an historic change in the in the geography of growth since 2010.

(Kellie) Thanks, and Brian asks: Actually as a comment first: "John nice analysis of the rural broadband adoption rate changes." Did you look at broadband infrastructure, that is availability changes or speed availability?

No we didn't, and part of that reason is that the data are not as easy to come by to interpret this. It's good to point out that this really is reflecting broadband use and not generally sort of the growth in availability. That would be another very useful way of sort of looking at these trends. So no, this is broadband use. I should point out that I think that the map we showed is useful, but it is based on an older standard of broadband, which is a very low sort of threshold for including connection speeds. This is FCC data so that's a challenge with the data. That's the best available county-level data. We still think that it's indicative of sort of the broad patterns of geographic change, but there are challenges with broadband data that we hope will improve.

(Kellie) Here's a follow-up question on broadband from Robert: Do you think that broadband could help rural areas economically converge with urban areas, commercially?

That's a very good question. That's not generally how I've looked at it, although I suppose you could. It certainly would increase the connectivity, so that rural businesses that serve urban clientele could certainly be conducted much easier or could be conducted in rural areas. That is definitely one aspect of how broadband access could improve rural economies by doing that connectivity. Mostly I've sort of looked at it in terms of just being able to provide services: to have telehealth, to improve performance in schools, and provide and improve the access to public services. But also, yes, certainly the ability to conduct business across a broader geographical area would be one aspect of how broadband would impact rural areas. It's a good point.

(Kellie) Now Anna is asking: On page 11, can we access a map of just our state and see which specific counties show up in red?

I'm not sure which one she's talking about. Is it perhaps slide 13? Right, so if you want to zoom in, and I would recommend if you access the report online, it's possible to zoom in on the map and be able to see those counties much better. If that helps, you can also follow up with me online. If you're having a hard time interpreting the map, I do encourage you to send me an email to let me help with that. But you should be able to see them better once you access the report online.

(Kellie) Peter is asking: Is there any data about cost of living in rural versus urban areas?

Oh boy, that's a tricky question. Yes there are. It doesn't necessarily give a picture of costs of living differences, but certainly you can get information. For instance, on housing some pretty reliable information on differences in cost of food, I believe, but in other cases especially with something like transportation, that's a little harder to measure. So the overall picture of the cost of living on a world versus urban I think is still incomplete, but it is a good point and it is what I make in the publication that the difference in median household incomes, the lower incomes in rural areas, is it is most likely in large part explained by cost of living differences. Certainly housing is cheaper in rural areas.

(Kellie) Lauren asks: Have there been changes in the availability of affordable, accessible housing in rural areas?

Yes, so in line with national trends, we do we see a decrease in the availability of affordable housing, especially for renters. And what you can read at the national level on the increase in what people call cost burden for households in terms of housing costs, it's been going up. It's been quite significant since the recession, and the mortgage foreclosure crisis prior to that, and the trends that apply to urban areas to the nation of the whole can also be seen in rural areas. So there are challenges in terms of housing, especially in terms of rental housing space.

(Kellie_ Another question - are there any statistics pertaining to perceived quality of life in rural areas/ mental health?

Wow that's a very good question. Perceived quality of life and mental health? I'm not sure on quality of life. I know that there are surveys on residential preferences and sort of people's judgments on quality of life, but yeah I'm not sure what specifically is meant by that term and how that would be measured. I would I would encourage her to follow up with me with an email and we can discuss that.

(Kellie) All right. Eric is asking: "Have you analyzed current housing disruptors like short-term rentals and housing speculation, their relationship to housing shortages, and the impact on economic employment recruitment and retention?"

No we have not conducted analysis like that. Those are very interesting questions. I know that research for the nation as a whole is showing this tremendous problem, that metropolitan areas that are the most dynamic--the ones that are generating entry-level jobs the most--are the same ones in which it's very difficult. The housing is unaffordable and the people that would potentially fill those jobs are having a much harder time being able to live in the areas where those jobs are being created. I know that just from reading the literature. We have not looked at how those challenges play out in rural areas, but and

again I encourage the person to follow up with those questions. They sound like very interesting topics to discuss.

(Kellie) OK, Steve asks: Do you see the rural population percentage stabilizing at around 15%?

That's a very good question. You would think so. It seems like we are we finally getting to that point of equilibrium where there will be again. We're at 80 roughly measured as metro, and non-metro we're at roughly 85% metro and 15 % non-metro. My best guess would be that would be hard for that percentage metro to go up to much more. I can't see a metro percentage higher than 90, but you know I can't predict the future. I understand where the question is coming from and it seems like we would have to be getting very close to that equilibrium point. We're sort of coming to the end of this tremendous transformation of the United States from a primarily rural country to a primarily urban one, and we may be sort of ending that period of urbanization.

(Kellie) Good. And John, could you show us the last slide again?

Sure, the final one right. Contact information, that one. There you go, and we have time for one final question.

(Kellie) Faith is asking: To what degree are rural residents satisfied with living conditions?

Wow that's a good question. I did mention that there have been surveys over the years about just that question-- where would you prefer to live and are you happy where you are living? And if I'm recalling correctly, the general finding has been that there's somewhat of a higher level of satisfaction among rural residents than urban residents in terms of are you happy with the type of place you're living now. If I'm remembering, it generally tends to be a little higher in rural areas. The ideal preference for a type of residence has always been typically a description of a suburban or an ex-urban place: I want to live in a sort of a rural looking environment that's very near a city so I can access the urban services but live where there's land and an open countryside. So that has always been sort of the ideal for Americans as recorded in these types of residential preference surveys.

(Kellie) Thank you very much, John, thank you to everyone who joined us today, and may everyone have a great day!

Duration: 46 minutes, 30 seconds