

Webinar Transcript: [Farm Income and Financial Forecast Update, September 2021](#)

Good afternoon everyone, and welcome to our webinar: Farm Income and Financial Forecasts September 2021 Updates. My name is Ashley Murdie and I'll be your host today. As a reminder, this webinar is being recorded and will be posted on the ERS website next week. If at any time during the webinar you have some questions, please enter them into the chat feature at the bottom left hand corner of the screen and our speaker will answer them at the end of today's presentation. Today, our presenter is Carrie Litkowski. Carrie is a Senior Economist and a Farm Income team leader at USDA's Economic Research Service. She's responsible for developing sector-wide measures of farm income, value-added, and aggregate farm sector balance sheet. Previously, Carrie served as an Economist at the Bureau of Economic Analysis where she was responsible for the production of farm incomes and employment statistics nationwide. Thanks for joining us today, Carrie the floor is yours.

Great, thank you Ashley, and good afternoon everyone. Thank you for joining me today, I really do always appreciate having this opportunity to discuss with you the latest USDA data on U.S. farm income and wealth. The ERS Farm Income and Finance Program measures, forecasts, and explains indicators of economic performance for the U.S. farm sector and it can be used to gauge the financial health of the sector. We release our forecasts three times a year and with today's release, we are updating our U.S. level calendar year forecast, for 2021, to include some new and additional information as it has become available since our February release including some survey-based data on 2021 crop planting, production, and prices. We also are incorporating the latest forecasts from the August World Agricultural Supply and Demand Estimates report the WASDE report. We're converting our 2021 forecast into an estimate with this release because we have this additional data now and we're able to produce our first state level farm income forecast-or estimate for 2021.

So, what does our forecast cover? Our data covers the farm sector as a whole agricultural production, which is comprised of two million farms who operate about 900 million acres of land. Next, we have data on the income and finances of the approximately 965,000 farm businesses. Now farm businesses are a subset of all farms that account for about 90 percent of the total value of ag sector production. Lastly, we'll look at the well-being of the over 6 million people who live in households attached to a farm.

Oops, I'm sorry a little frozen here. I don't know- here we go- there we go. Sorry about that. So, this is our forecast, or the highlights of our forecast, in a nutshell. And it's also the order in which I'm going to talk about things today. To start off with both measures of farm income are forecast to continue increasing in 2021. Net cash farm income is forecast to increase to 134.7 billion, or up 21.5 percent relative to 2020, and that farm income is forecast at 113 billion dollars up 18.5 billion or 19.5 percent. This increase in net income is being driven by cash receipts from commodity sales which are expected to increase 64.3 billion dollars or 18 percent in 2021. And this would be the first increase in total cash receipts since 2017. But somewhat moderating

income growth are direct government payments which are forecast to decrease almost 18 billion dollars, or 39 percent in 2021. But federal commodity insurance indemnities are forecast to increase almost three billion dollars. Total production expenses are forecast to increase 26 million dollars, or about seven percent, which is further moderating growth. On the farm sector balance sheet farm sector assets and equity are both forecast to increase slightly, in nominal terms, while debt is forecast to decline slightly in 2021. Now note on this slide all these values are nominal dollar, I'm not making any adjustment for inflation but I'm going to have a lot of charts later on that do adjust for inflation. Average net cash income for farm businesses, these are larger farms where the operator's primary occupation is farming, is forecast to increase almost 12 percent in 2021 to about \$93,700. And for those households that operate a farm, median household farm income is forecast to decrease a half a percent to just under \$80,000 in 2021.

We have two primary measures of farm sector income, or our profits. The yellow line is net cash farm income, which is essentially the cash coming out of the farm, the income, and the cash expenses that the farm faces. That's the yellow line, the blue line is net farm income, which is a broader measure of income that also incorporates non-cash items, like economic depreciation, and it accounts for changes in inventories. Note this chart is an inflation-adjusted dollar, so I'm adjusting prior years to account for inflation and putting everything in 2001 dollars. That allows for a better comparison, I think, of levels of income over time. For both measures we're forecasting net income to continue to increase in 2021 and really, they've been trending upwards since after 2016. Our 2001 forecast put net cash farm income at its highest level since 2014 and net farm income at its highest level since 2013. Relative to 2020, net cash farm income is forecast to increase 17 percent when inflation adjusted, and net farm income is forecast to increase 15 percent. Both measures are forecast to be well above their average from 2000 to 2020. Net cash farm income would be about 19 percent above its average and net farm income 20 percent.

We derive net farm income by first comparing its component parts, it's a bottom-up approach, that allows us to identify what is driving the change in income from 2020. Now this chart we're back to nominal dollars. For 2021, the forecast increase is primarily due to higher cash receipts from commodity sales, so in this chart we have net farm income on the far left, the 2020 estimate at 94.6 billion dollars, and then at the far right we have the forecast for 2021. The bars in blue indicate which components are contributing to growth and the bars in red indicate which ones are taking away from growth. So, the things that stand out for me here is first the 37.9 billion increase in crop cash receipts and the 26.5 billion increase in livestock or animal and animal product receipts. So combined that gets us, like I said before, about 64 billion dollars. But helping to moderate that growth a bit are production expenses, which are forecast to increase to 26.1 billion. You know, that's a negative here because higher expenses mean lower net income. Government payments are also forecast to pull down income and decline almost 18 billion from 2020. And then, that gets us to the forecast for 2021 at 113 billion dollars.

We can go a bit more into cash receipts because, I really think, this is an interesting point or aspect to the farm income release at this point. You know in the previous chart we saw that cash receipts are forecast to increase in 2021 relative to 2020. In this chart we show why. We can do a simulation and deconstruct the changes in cash receipts into a price effect and a quantity effect. In other words, we can identify whether changes in prices or quantities sold are driving the change in cash receipts. So, if we start from the left, we see that total cash receipts are forecast to increase 43.6 billion dollars in 2021 due to higher prices. So that's the orange bar, the higher price bar. And higher quantity sold, the blue bar, are expected to contribute another 19.6 billion. You add those up and you get the 64 billion dollar increase for cash receipts on the whole. Note that this increase of 64 billion dollars would be the highest single year increase since 2007, when you inflation adjust. For crops we see that higher prices are expected to contribute most to the forecast growth in crop receipts. And then for animal and animal products, or livestock, both higher prices and higher quantities sold are expected to contribute similar amounts to the total increase in livestock cash receipts.

We can also look at cash receipts by commodity. Note these are calendar year forecasts and this chart is back in inflation-adjusted dollars. We forecast receipts for about 25 different crop commodities or commodity groupings. This chart focuses on some of the major crops. After declining in each year after 2016, total crop cash receipts our forecast to increase 15 percent in 2021. Increases in receipts for corn and soybeans are expected to account for nearly all of the increase in total cash crop cash receipts. After declining in 2020, corn receipts are forecast to increase 38 percent and soybeans are forecast to increase 39 percent. I'm going to talk about more about corn and soybeans in the next slide. Fruits and nuts and vegetables and melons are all forecast to continue to decline in 2021, so we have a pretty steady trend of the downward cash receipts for fruits and nuts. And wheat is expected to increase about 21 percent, mostly due to higher prices.

So, let's talk about corn and soybeans, because you saw those numbers were pretty high in the last chart. This looks at cash receipts for corn and soybeans since 2000. Corn receipts in 2021 our forecasts would put them at their highest level since 2013, but they would be below the peak levels that we saw in 2011 and through 2013. To derive our forecasts for cash receipts we use price and production forecast from the August World Agricultural Supply and Demand report the WASDE report. That report had production in the 2021-22 marketing year forecast at its highest level since 2016. And they had the marketing year average price forecast as being the highest since 2012. So, both factors are contributing to this increase in corn receipts. Our cash receipt forecast for soybeans would put them at their highest level ever, that's the red line. Again, the WASDE data has 2021-2022 production forecast at the third highest level on record. And the price, the end- you know, the expected price forecast would be the highest since 2012.

On the animal and animal products side, total livestock receipts are forecast to increase 12 percent relative to 2020. Which would be the first increase since 2017, or the first increase in three years. Receipts for cattle calves, broilers, and hogs, are all expected to increase in 2021

after declining in 2020. Prices received by farmers for these commodities are expected to rise in 2021 contributing to our forecast for higher receipts. What stands out, for me, on this chart are receipts for hogs which are forecast to increase 44 percent or nearly 9 billion dollars in 2021. Prices are forecast higher for hogs relative to 2020 and be at their highest level since about 2014 and production is also forecast to be very strong in 2021 calendar year. It would be the second highest level of production ever, if realized. We are forecasting dairy receipts to decrease in 12 percent, decrease in 2021 by about three percent because of lower prices in 2021.

Government payments are another source of income and they continue to be an interesting story in 2021. We define government payments as direct payments made to farm operators by the federal government, they are usually from farm programs. We record them in the year in which they were received by the farmer. Government payments more than doubled in 2020 to a record level 45.7 billion dollars. This increase was due in large part to supplemental and ad hoc disaster assistance payments for farmers uh for COVID-19 relief. In 2021, government payments are forecast to decline 39 percent or almost 18 billion dollars to 28 billion dollars with COVID-19 related aid forecast to decline based on authorized spending to date. On this chart, supplemental and ad-hoc disaster assistance including the covid related aid is recorded in the all other payments the purple bar which is forecast at 21.8 billion in 2021. Now this bar includes payments from the Coronavirus- Coronavirus Food Assistance Program, so CFAP, and other USDA pandemic assistance to producers, which provides direct relief to producers whose operations have been directly affected by COVID-19. USDA pandemic assistance received in calendar year 2021 is forecast at 9.3 billion dollars, as shown in that side comment there. And that compares to about 23.5 billion in CFAP payments that were received in 2020. Additionally, the purple bar includes loans from the Paycheck Protection Program administered by the small business administration, the PPP loans. Although these are called loans, the loans will be forgiven if the program's requirements are met, and so we're treating them as a direct payment to farmers. And forecasts that farmers will receive about 8.7 billion dollars in loans in 2021 based on the data that we've gotten from the small business administration. This is up from 2020, and values may be revised as we get more information about debt forgiveness from the SBA. You know the remainder of all other payments, the purple bar, includes things like other supplemental ad hoc assistance, like WIC plus, and payments under the Dairy Margin Coverage program. I think the other interesting category of government payments, on this chart, are those that are a function of crop prices, which is shown by the orange bar segment. They're forecast to decrease by about 3.7 billion mostly because of lower payments under the agricultural risk coverage arc and Price Loss Coverage programs, PLC. The blue line shows inflation adjusted total direct government payments and they averaged about 19.8 billion dollars across 2000 to 2020. So, the forecast in 2021 is definitely above average, but still below what we saw last year.

This chart looks at government payments from another perspective and also includes another source of income to farmers, commodity insurance indemnities, which are payments to farmers for losses that are covered by insurance. Here federal net insurance and government payments

are shown relative to the rest of net farm income, for the ag sector as a whole. And this chart is an inflation-adjusted dollars. The top peach bar shows indemnity payments paid to farmers less the premiums paid by farmers for federal commodity insurance. So, this is like net insurance payments. In 2021 net indemnities are forecast to increase 1.6 billion, or 27 percent. The darker orange bar segment shows direct government payments, which is what we were talking about in the previous slide. When combined direct government payments and net insurance are forecast to account for about 32 percent of net farm income in 2021. So, that would be a lower share than what we saw in 2020, but it's also higher than average for this uh- for the data. Net cash farming sorry- net farm income excluding these payments, that's the gray bar, did decrease in 2020 but is forecast to increase in 2021 reflecting the higher commodity cash receipts.

So, we've talked about income so let's look at expenses or costs, you know, that are incurred by farmers in order to produce their agricultural output. You know, this includes things like feed, fertilizer, and higher labor. This chart shows total expenditures in both nominal and inflation-adjusted dollars. In 2020, production expenses increased 2.5 percent, nominally, based on newly available data from the 2020 Agricultural Resource Management Survey. This marks the first increase in total expenses since 2014. So, we had five consecutive years of decline, you know, coming in before we hit the increase in 2020. In 2021, total production expenses are forecast to increase seven percent, or 3.5 percent when inflation adjusted. This will put them at their highest level since 2016 in the inflation adjusted series. But still, you know, obviously below the peak that we saw in 2014.

When we look at expenses by category, we forecast spending for nearly all categories to increase the 2021 relative to 2020. This chart compares 2019, 2020, and 2021 expenditures by category. and we have those categories expected to see increased expending above the dotted line, while those that are expected to decline below. But we only have one item below the line because nearly all categories of expenditures are forecast to increase in 2021. And that's reflecting the prices paid for many production inputs, which have been trending upwards this year. Also, higher commodity production in 2021 would contribute to higher spending as well. The largest dollar increases are expected for feed and- and also prices, I'm sorry, livestock purchased. So, for the feed we're expecting- or we're seeing data from NASS that reports that the prices paid are have been increasing through June. And for the livestock purchased, we're also similarly seeing that the price for buying animals to raise is also increasing. So, pesticide the only item on the chart that's going down that is reflecting higher prices for agricultural chemicals, at least so far in 2021.

So, in addition to farm income, the balance sheet is another tool we can use to measure or gauge the health of the farm sector. It provides information on the value of physical and financial assets, and the level of debt in the U.S. agricultural sector over time. So, looking historically I think the balance sheet is still strong, it remains strong.

The value of farm assets, which includes assets financed with debt, is represented by the top line on this chart. And it has remained relatively steady since about 2014. And in 2021 it is forecast to decrease one percent in inflation-adjusted dollars. About 80 percent of farm sector assets are real estate assets so the, you know, the value of land and buildings, which are expected to increase two percent in nominal dollars, but that's not keeping up with inflation, so they're forecast to decrease 1.7 percent in the inflation adjusted series. But this increase uh- let's look next at equity that's oh I didn't foil the slide, did I? The equity has declined um four percent since 2014 through 2020 and is forecast to decline less than one percent in 2021. Okay, so farm sector debt that's the blue, and that's what I think is interesting with this release is that it is expected to decline nearly four percent in 2021, which would be the first decline since 2012 in farm sector debt in an inflation- inflation-adjusted series.

Now this forecast decline in debt has real implications for farm sector solvency and other measures of financial performance and stress. This chart looks at the amount of debt relative to assets and relative to equity shown as percentages. These are solvency ratios which provide a measure of the sector's ability to repay financial liabilities, or debts and loans, through the sale of assets. Both ratios have increased every year for the past eight years. But the forecast to decline in debt would lower these ratios and suggest improved solvency for the sector in 2021. It's important to note that these solvency ratios are for the sector as a whole. There's of course a lot of variation in the amount of debt held by individual farms. Additional financial ratios, including liquidity measures, are available on our website.

But here's two more for you, and these two also point to lessening financial stress in 2021 and that's the bankruptcy rates and the debt service ratio. Since 2015, the bankruptcy ratio trended upward until 2019- or through 2019. In 2020, bankruptcies fell four percent based on data from the U.S. Courts. And in 2021 we're projecting bankruptcies to fall further, based on the filings that we've seen through June of this year. The debt service ratio is also expected to continue to decline, or improve in 2021, as shown by the line on this chart. The debt service ratio describes the share of production income, or gross income, used for debt payments. And is one measure of liquidity, or the amount of capital that is readily available as cash. The forecast decline in the ratio in 2021 is because of higher production income from cash receipts and lower debt levels.

Up to this point I've been discussing forecasts that apply to the farm sector as a whole. Now let's look at farm businesses, which I think are an important subset of all farms. And we define them as farms where the primary occupation of the operator is farming, plus those farms that had 350 thousand dollars or more in gross cash farm income, so income before expenses. There are roughly 965,000 farms that meet this definition and they're represented by the red and blue bar segments on this chart. According to the 2019 ARMS or the Agricultural Resource Management Survey, residence farms, so those are farms where the operator is retired or whose primary occupation is not farming, account for just a little over half of all farms. But commercial and intermediate farms account for over 90 percent of all agricultural production and hold most of the sector's assets and debt. Now for this release we do have preliminary data from the 2020

ARMS, and with that we are able to project how farm businesses will fare in 2021 based on the sector level forecast.

And we can break down those forecasts for farm businesses by commodity specialization, and geographic regions. So again, we're only looking at farm businesses now, not all farms. An average- and let's start by looking at farm businesses that specialize in crops. This chart is an inflation-adjusted dollars. So, using ARMS we can categorize farms by commodity specialization, meaning that at least 50 percent of the value of production comes from a particular commodity. So, we can distinguish corn farms from soybean farms, for example, based on what they specialize in. In 2021 the outlook for crop farm businesses is mixed. All farm businesses, regardless of specialization or geographic region, are expected to see government payments decline and expenses to rise in 2021, so factors that would lower their income. But for some types of farm businesses cash receipts are forecast to increase enough to offset these changes and result in higher net farm income in 2021, on average. So, in particular on this chart, corn, soybean, and wheat farm, businesses are forecast to see average net cash farm income increase in 2021. Because for all those commodities, cash receipts are forecast to increase in 2021, at the sector level. The forecasted average net cash farm income levels for corn and wheat would be the highest since 2013, because they're the highest on this chart but you've got to go back a couple years more to find their previous high in 2013. Soybean farm businesses, the forecast for 2021, would put the average at its highest level ever. But this series does only go back to 2010. Average net cash farm income for cotton and specialty crop farms is projected to decline as cash receipts for those commodities are forecast to fall.

For farm businesses specializing in animal and animal products, or livestock, most are expected to see average net cash farm income decline in 2021. I'm going to start with dairy on the far left. Dairy farm businesses are forecast to see the largest decline in 2021, as milk receipts are forecast to fall three percent. So that decline, in addition to lower government payments and higher expenses, is going to result in a larger decline in average net cash farm income. Farm businesses specializing in cattle and calves and poultry are expected to see a smaller decline than dairy, because cash receipts for cattle and boilers may partially offset lower government payments and higher expenses. Hog farms are the only category of livestock businesses where average net cash farm income is forecast to increase in 2021. For the sector receipts for hogs are forecast to increase 44 percent in 2021. And that's influencing our projection for average net cash farm income and our forecast would put average for farm-hog businesses at their highest level since 2012, or at 500- that's 502,000 on average for hog farms.

By looking at how agricultural production is distributed to our, you know, geographically, we can project how average net cash farm income for farm businesses can be expected to change in 2021 by resource regions. Five out of the nine resource regions are expected to see higher average net cash farm income in 2021. But first, across all farm businesses average net cash farm income is forecast to increase 12 percent that's shown at the bottom or \$10,000 per farm from 2020. This reflects the forecasted increase in net cash farm income for the sector as a whole.

Farm businesses in the heartland are projected to see a 47 increase, as farms in that region are expected to see higher receipts for corn, soybeans, and hogs. Farm businesses in the Fruitful Rim are expected to see the largest decrease, at 23 percent, due to forecasts for lower receipts for fruits, nuts, vegetables, as well as lower government payments and higher expenses, so all contributing to that decline. Lower dairy receipts would contribute to a lower average net cash farm income in the Northern Crescent.

Up until this point, we've been discussing the financial performance of the farm sector as a whole and farm businesses. But this doesn't often give an accurate, or complete, picture of the well-being of households that own and operate farms. Farm profits are often shared with other stakeholders, like landlords or contractors, and the well-being of farm operator households is determined by a combination of on-farm and off-farm activity, with the majority of farmhouse income coming from off the farm for many households. So now we're going to look at all family farms. So that's about 98 percent of all farms, and the households of the farm operators.

Note that, you know, over 6 million people live in households that are attached to a farm. One measure of their well-being is household income which, in total, declined in 2020 and is forecast to decline further in 2021, at the median. This chart looks at income earned on and off farm and total household income at the median. So, what is the median? If you took all of the farm households and line them up in order from lowest income to highest income, the households at the very middle of the distribution are the median, and we do the median for each type of income separately. Note this chart is in inflation-adjusted dollars. So, the first section on the left, income from farming at the median, is forecast to decline in 2020, it's really hard to see I know those bars are really small, and then declined slightly in 2021, so \$187 but that's a loss of one \$1,387. Recall that most farms are residential, which means that you know they're small farms and farming is not their primary occupation, so that's one reason why this median is so small it- it represents probably a residential farm. But many farm households, especially at the median, rely on off-farm income, which is this middle section. Off-farm income sources include off-farm wage income, non-farm business earnings, dividends, and transfers. Median off-farm income decreased about four percent in 2020 and is forecast to decrease about one percent in 2021, when inflation adjusted. On the whole, I mean it's pretty consistent, you know again with all these different sources of income but for the total median income decreased in 2020 and is expected to decrease again in 2021, getting us to a median household income of \$79,909. So, this begs the question I think: if farm income for the sector is expected to increase or in 2020 and in 2021 why isn't median of household income increasing? Well, I think this partially answers the question in addition to the fact that we talked about most, for many farms, most of the income is off-farm, not on. But even- but the other factor is who is benefiting from this growth in farm income in 2020 and 2021? And this chart looks at farm household income by type of farm. So, for residential and intermediate farms median household income as shown by the blue line, tracks very closely with off-farm income. You know, off-farm income accounts for essentially all of the household income at the median. Income from the farm is shown by the gray line and it is near

zero for residents and intermediate farms. For commercial farms, on farm income is more important and it's driving the trends and immediate household incomes. So, following the sector level forecast for higher farm income in 2020 and 2021, on-farm income for commercial farms is expected to increase in both 2021- and 2021, and drive the increase in total household income for households that are attached to a commercial farm.

The information I presented you today is available on our website, along with estimates and state level data for prior years including 2020. We have data tables, charts, maps, and a written summary of our findings. Our next release is scheduled for December 1st, at which time we're going to update our 2021 forecast again. So, with that, I'll conclude and I'm happy to take any questions.

Thanks Carrie, 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. All right, so first question here: do most government payments go to commercial farms and then what share?

Yeah, commercial farms do receive the majority of government payments. If you look at the ARMS data, the Agricultural Resource Management Survey, it varies by year, but they generally get 60 to 70 percent of all the direct government payments that go to the farm sector.

Thanks, Carrie. This next question is: why is average net cash income for cattle farm businesses so much lower than average income for other types of farms?

Yeah, that's a- that's a common question. If you look at this chart in particular you see that the average is really low, but if you recall the even earlier chart where I show- showed cash receipts for cattle, they are significant, right? They account for a large share of total cash receipts. But what's happening here is that most farms that specialize in cattle and calves they tend to be small- small operations. So that is really bringing the average down, because they're small. So, it's not like- so it's not like we're saying they don't produce a lot of cattle, it's just that we have a lot of small cow-calf operations. Another factor might be that, perhaps a lot of farms that have cattle and calves don't specialize in them. So maybe they're a corn farm business maybe 50 percent of what they produce is actually coming from corn, but they have some cattle and calves in addition to that, but it's just not their dominant commodity that they produce.

Got it. All right, another question that we've just gotten is: what factors impacted changes in ERS's estimate of the 2020 net farm and net cash farm income between February 5th, 2021 to today?

Yeah, that's a good question because there were some notable revisions, right? To both our 2020 data and to our 2021 data. For 2020, we were able to convert it to an estimate this time, and one of the things that we incorporated in to the new 2020 was ARMS data, you know, that came in between- that came in just this summer, preliminary numbers. So, we didn't have that before. So now we actually have survey data which can tell us the reported amount of expenses in particular

that farmers had uh in 2020. And that came in higher than what we were projecting, so that made- that contributed to a lower uh a lowering of our 2021 estimate from February. Additionally, we had a notable revision to cash receipts. So, we were forecasting it in February, but after February a lot of data started coming in from the National Agricultural Statistics Service, from NASS, that gave us actual survey-based information on production, on receipts, and on prices. And in particular, I know that we revised down our 2021 estimate for fruits and nuts and vegetables was pretty notable. I think soybeans was in there too that we revised it down. So, then all of that, kind of, influenced you know where we came out for 2021 because you know we do our estimates first through 2020 and then when we forecast, that serves as our base for forecasting 2021. So that did, you know, feed through to causing some revisions to our 2021 forecasts in addition again we have a lot of new data that we were able to put in this forecast because, you know, as a February, you know, we didn't have a lot of information- really concrete observable information on what the 2021 crop year was going to look like. But now, you know, we're into August so we had data through August that was really getting us maybe like some field level data on um what farmers are producing, and what kind of prices they're getting, and that influenced the forecasts or the projections.

Okay, thanks Carrie. Another question is: what portion of farm income in 2020 was supplied by direct payments and net crop insurance indemnities? Now you said it was 32 percent this year, what's the 2020 comparison?

Yeah, so that's this slide. I believe it was about 54 percent in 2020, I said it I know, um but yeah, it was some it was at least 50 percent 54 or 56 percent net farm income in 2020, was from government payments and net insurance.

Okay, and for the next question: who is a commercial farm?

Yeah, a commercial farm. Our definition is pretty straightforward: it is any farm- it's a farm that has gross cash farm income of 50,000 or more, plus any non-family farm. So gross cash farm income, meaning that their output the value of what they produce is at least \$350,000.

Thanks, uh for this next one it's: do we know if health insurance drives small farm farmers and ranchers to seek off-farm employment?

That's a good question, I think it's such a good question that we asked it in I think the 2019 ARMS. And we have our Diverse Family Farm report, it's a report that we put out every year, and that report has the results of that question. I don't know the statistics directly, but yes the results suggest that one reason that farmers seek off-farm employment is for health insurance.

Thanks, for this next question: are there any forecast indications on 2022 versus 2021?

Well not from us, well not from my group. If you're wanting to look a year ahead into 2022, the WASDE reports, you know, they're looking through count- through crop year 21-22, so some of that does go into calendar year 2022, but they're not doing full projections for 2022 yet. We do

have ERS- does have baseline, we have a what we call our baseline projections, which do, you know, a long run projection, but that's, you know, updated one time a year in February, I believe. But no, um we focus for this just on the short run, and we're gonna have our first 2020- sorry 2022 forecast in February.

Great, okay thanks. Our next question is: regarding government payments, the purple bar is quite large, could you break out the numbers within it to understand the values of it? Oh, let's see, I'm not quite sure if we know which slide that was in reference to.

Oh, I know, I can get that here. So that's this slide. Right um I do not have the total amount here for- for the purple bar. But we do have a more detailed breakout on our website, so here I'm just grouping everything into five categories, but we have more categories or more program by program payments, on our website in our web reports there. But the- all other payments, a huge chunk of them in 2020 and 2021, are these covid related aid programs that I specifically give the amounts for in that side box. So, but I do not have right in front of me what the- all other payments in total is for both 2020-2021.

Okay, another question: some farm types had strong production and string prices, and this seems unusual what is contributing to this?

Yeah, I believe I understood the question is why we have strong production strong prices, that's kind of a little bit counter to basic economic theory that, you know- you know they would move in opposite directions. But that just happens sometimes, that you get production and prices going in the same direction. And, you know, there can be some factors for it I think export demand is one of the factors that is helping to drive prices. The production, you know, there's also kind of you know that also affects production to a certain degree, and sometimes you know I think COVID-19 probably paid a factor here too, in you know, maybe shifting from what we see as being normal. But it was, you know, both prices and quantities of kind of a double whammy to increase crop cash receipts in 2021.

All right, how do current record high ag export surpluses weigh into the current forecast for farm income or cash receipts:

Oh yeah, so that's kind of related a little bit to what I was trying to answer for the previous question, is that yeah, I was- I was reading the USDA quarterly trade report, you know, and it talked about you know high exports in 2021 and 2022 in that high U.S. production, and high U.S. prices, were contributing to you know this forecast for higher exports. And, you know, I guess so in some way it's the production that's influencing the exports, but I think you have it the other way too, that exports can influence production when demand expectations are high. So, you, know we think that Chine demand for our exports- exports is going to be higher. So that does influence, to some degree, you know the production and price forecasts that we get from the WASDE. So, I don't make those decisions on how much um the trade situation influences the

projections, but the experts at the WASDE, or the World Agricultural Board, take that into consideration when they do their commodity forecasts.

Thanks, next question: uh is over half a farm- or I'm sorry if over half of farms lose money farming, will they exit farming?

Right, you've- you know I talked about the median that, you know, farm income is negative so why would they continue to farm if they're not making money off of it? And, in fact, for roughly half of all farms, farm income is negative. But, you know, that kind of net income doesn't capture all of the benefits, or contribution that farming can make to the financial well-being of their household. You know, you can consider- it doesn't consider like uh tax benefits, or asset appreciation, you know, the fact that you have a farm, you own the farm and it's appreciating, probably every year after year. You know, and so and also just you know maybe the maybe they're farming for other reasons, you know for a lifestyle. So, there is a report that we put out on the economics of uh farming to households, I think it was put out in 2018. And it talks about when you consider some of these benefits that aren't in the net income measure, that they're not as many farms that actually have negative returns. So, that's why I don't think farm people leave farming, is because they have other reasons, or there are other benefits that our net income measures aren't capturing.

All right, that's all we have for today. Thanks for sharing your report with us, Carrie, and taking the time to answer these questions. And thank you to our listeners for taking time out of your day to join us. As a reminder a recording and transcript of this webinar will be available on the ERS webpage next week. Thanks again everyone this concludes our webinar.