Webinar Transcript: Data Training Webinar: Farm Income & Wealth Statistics and Agricultural Resource Management Survey (ARMS) Data Dissemination Tool

Good afternoon, everyone. My name is Ashley Murdie, your host for today's webinar. On behalf of USDA's Economic Research Service, welcome and thank you for joining us in the sixth segment of our data training webinar series. Today's webinar will feature ERS Economist Carrie Litkowski and Dipak Subedi as they spotlight our Farm Income and Wealth Statistics and Agricultural Resource Management Survey Data Dissemination Tool.

As part of our Data Training Webinar Series, this webinar is meant to teach those interested in ERS data how to access and fully utilize our many data products. And what better way to do so than connecting you directly with the experts? Throughout the year this webinar series has continued to connect viewers with ERS specialists on a variety of different data products. If interested, details of the entire webinar series can be found on our webpage, which we'll link to in the message center here shortly.

Before I introduce our speakers, 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 during the webinar, 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 following the presentation.

Now, it's a pleasure to introduce our speakers Carrie Litkowski and Dipak Subedi. Both serve in the Farm Economy Branch of our Resource and Rural Economics Division. As a senior economist and farm income team leader, Carrie is responsible for planning and implementing an estimation, research and analysis program focused on developing sector-wide measures of farm income, value-added, and the aggregate farm sector balance sheet. Prior to joining ERS, Carrie worked at the Bureau of Economic Analysis for 22 years where she was responsible for the production of farm income and employment statistics for the nation.

As a member of the farm income team, Dipak is responsible for estimating and forecasting direct government payments and crop insurance indemnities, updating the 10-year agricultural baseline model for the U.S. foreign sector, and compiling data in the Agricultural Resource Management Survey Webtool each year. Most recently, his research has centered on the impact that COVID-19 relief program payments have had on the economic well-being of farm households and minority producers. He has also authored multiple COVID-19 working papers and peer-reviewed journal articles. Prior to joining ERS, Dipak served as an economist in the Bureau of Labor Statistics where he worked on the Quarterly Census of Employment and Wages Program.

Thank you both for joining us today. We'll begin with opening remarks from Carrie on our Farm Income and Wealth Statistics, followed by Dipak's overview of the ARMS Data…ARMS Data Dissemination Tool.

Without further ado, let's begin. The floor is yours Carrie…

Thank you, Ashley, and hello. Good morning or afternoon, wherever you're at. Thank you for joining us today. For over 100 years USDA has produced a calendar year estimate of net farm income. The Farm Income and Wealth Statistics have been designated a premier statistical

product of the Economic Research Service, meaning that the data is influential and central to the agency's mission. It also adheres to the statistical policy directives for our principal federal statistical agencies of which ERS is one. Net farm income is one of the most frequently cited USDA statistics. Our farm income data releases are often covered in national and local media. Here are just a few recent headlines, covering a few different aspects of our most recent release. But our statistics are referenced throughout the year in articles, blogs, congressional testimony about the agricultural economy, trade, finance, or rural issues.

The ERS Farm Income and Wealth Statistics Program estimates forecasts and explains the economic performance of the U.S. farm sector. The data provides guidance to policy makers businesses including agricultural lenders, input suppliers, and commodity organizations who want an assessment or a forecast of agricultural sector conditions before making important decisions. Also, the data is used by state governments academic researchers and others with an interest in the health of the farm sector. Our data is featured in reports and statistics produced by other federal agencies including the Economic Report of the President, congressional budget office reports, and the data is used by the Bureau of Economic Analysis in measuring the farm sector's contribution to gross domestic product or the U.S. economy. With this program we put out a lot of data. Today I'm going to show you how to access the data and give you some examples of the kinds of information that we have available for you.

But first, why are the data so widely used? Why is it so frequently cited? Net farm income provides a bottom line or summary statistic on farm sector profitability, which can also be used as an indicator of the economic performance or situation of farm operations. Net income affects the ability of farmers to meet their loan obligations, invest in new machinery, remain in production, expand their operations and to provide for family living expenses. Additionally, we measure net income from the bottom up, meaning that underlying data or the components of farm income, are available to explain the year-to-year changes in farm income. Also, our farm income measures are consistent across both time and geography, meaning that you can compare income across states, and you can evaluate trends. We have two primary measures of farm income. Net farm income is a broad measure of income and is calculated as the sum of the value of crop and animal production and animal product production, farm related income and direct government payments, less production expenses or the costs incurred to produce their agricultural output. This includes both cash and non-cash items and accounts for changes in commodity inventories and capital consumptions, or the depreciation of farm assets. Net cash farm income considers only cash income and expenses, and is measured as cash receipts, plus farm related income, direct government payments, less cash production expenses.

So, what do we mean by the farm sector? How are we defining it? According to the 2017 Census of Agriculture, there are two million farms in the U.S., and they operate 900 million acres of land. According to the Agricultural Resource Management Survey (ARMS), about half of these farms are what we call farm businesses. So, these are larger farms, plus those farms where the principal operators' primary occupation is farming. These farm businesses account for about 90 percent of the sector's total production. Also, about five million people live in households that are connected to a farm.

What do we produce? Through the ERS Farm Income and Wealth Statistics Program, we put out data on the amount of income earned by farmers and ranchers with the underlying components of net income, along with data on the level of assets and debt held by the sector. And I'll get into a lot more examples of what this includes later. We produce annual state and national estimates or historical estimates. That's data for prior years. We currently have state level estimates on farm income back to 1949 and U.S. estimates back to 1910. We also produce national short-run annual forecasts with our current forecast being for calendar year 2022. This first link for data will take you to our data files and data visualizations. The second link is where you can find a written discussion of our current forecast.

You can also get to the data product page and the forecast discussion through the ERS website. So, if you're on the ERS home page, you can go to the menu bar up at the top and click data select data products, and then select farm economy. That will list, take you to a list of data products for the farm economy listed in alphabetical order.

So, to get to the Farm Income and Wealth Statistics, just look for the farm income and wealth statistics here. It's marked as an app for the data product.

On the data product page, we have our data files section. And this section links you to all of our interactive reports, data files and data visualizations. All of our data is here, along with related documentation and other information on our data. Note, this menu on the left side is how I'm going to walk you through the Farm Income and Wealth Statistics data in the subsequent slides. Quick tip! We have a list of frequently asked questions in the 'Update and Revision History' section, which you can see on that left hand menu. There are about almost 20 questions there, which you may find…and answers, which you may find helpful.

I couldn't get the entire page data files on one screen, but here we do have a list of all of the interactive reports that we have available. Many with both state and U.S. level data. To get us started, let me show you one of our tables: our 'Value Added Table,' which is first on the list, which shows detailed information on the farm sector's contribution to the U.S. economy and has our net farm income estimates and forecasts.

There is a value-added table for the U.S. and for every state. You can just click on the state or the U.S. or whatever you want to look at. There are a number of options for viewing the data. From the time period pull down menu at the top, you can choose to view the data for the most recent 10 years, or you can view the data for all years. You can also choose to see the data in nominal or real dollars. Once you've made your selections, be sure to click the submit button to refresh the data. Just below those pull-down menus is a button that looks like an old-fashioned computer diskette. Hopefully you can see it there. If you click on that, you can download the data as an Excel file.

We have additional tables on net cash income and returns to operators. We also produce detailed cash receipts data on about a 130 commodities and commodity groupings. We have production… we have government payments for about 20 different programs or categories of programs, such as payments from the agricultural risk coverage program the price loss coverage program and

conservation programs as a group. Our 'Production Expenses' table cover about 24 different expense items. I'll cover what's included in our 'Balance Sheet' in a few more slides.

From the left-hand menu of the data product page, if you click on summary of data findings. It will take you to our Farm Sector Income and Finances Topic Page, which has a written discussion of our current forecasts and includes some nice charts, such as this one which shows our two primary measures of net income over the past 20 years and the 2022 forecasts in real dollars. We're forecasting that cash farm income in 2022 to be at its highest level since 2012 when prior years are adjusted for inflation. Net farm income is forecast to fall just slightly in 2022 after reaching a near record high in 2021.These above average net cash farm income and net farm income forecasts largely reflects strong growth in commodity cash receipts or sales even as farmers are expected to see large increases in production expenses or costs in 2022. We get into more detail in this summary of data findings if you're interested.

We also have three data visualizations, which you can use to explore the data through charts and maps. The first data visualization allows you to get some quick facts about farms in a particular state. Note that all of the data in our visualizations are also available on our web reports. Here, we have canvas. In 2021 net farm income was 5.2 billion dollars. You can choose to rank and grasp any of the farm facts. In this example, we see that Kansas ranked seventh across all 50 states in government payments in 2021.My favorite feature of this visualization is that it tells you the top five cash receipt commodities and the top five production expense items for any state. In Kansas, cattle and calves are the leading cash receipt commodity and livestock purchases are the single largest expense item.

Next, we have our Farm Income Atlas, where you can map and compare components of farm income across states. Here, I have selected to look at direct government payments, which are payments made directly to farm operations from the federal government and usually from farm programs. This map shows USDA pandemic assistance to farmers in 2021. Iowa led the nation in USDA pandemic assistance to farmers at $558 million. If you change the units, you could see that in Iowa this assistance amounted to 27 percent of total direct government payments and one percent of gross farm income in 2021. You can also look at the percent change from the prior year. Other tabs on this visualization look at cash receipts, farm related income and production expenses. The visualization has data back to 2008.

In addition to providing data on farm income, we also have data on the level of assets and debt held by the farm sector. This is shown in our Farm Sector Balance Sheet for which we also have a data visualization. In this chart from the visualization, we can see that, since 1987, farm sector assets have trended upward in real or inflation-adjusted dollars, while the level of debts held by farmers has remained relatively low. For this chart you can choose which summary measures and years to display. On the other tabs, we have data on farm assets by type including data on real estate values. We also have data on farm debt by type and by lender – for instance debt by from commercial banks or the farm credit system. And we also report estimates and forecasts for about 19 financial ratios designed to indicate the financial standing or performance of the farm sector as a whole. These include ratios such as debt to asset, operating expense, debt service and the rate of return on farm assets.

In addition to the web reports and data visualizations, there are other ways to access the data. On a data files page, if you scroll down towards the bottom of the page, you can find CSV files with all of the data from a particular release. So, if you want all the data from our most recent release, select the September 1, 2022, file that is listed first there. We have another CSV file with select U.S. estimates and forecasts from previous farm income releases back to 1977. With this file, you can examine how our forecasts and estimates for a given year evolve or are revised over time.

We release and update our data three times a year. In February, we released our first U.S. forecast for 2022 and updated our forecast for 2021. On September 1st, we updated our first…we updated our 2021 U.S. forecast again using new data that had become available since February, and we converted our 2000… sorry we updated the 2022 forecast again and we converted our 2021 forecast into an estimate using survey-based data and other observed data. We also put out our first state level estimates for 2021 in that September 1 release. On December 1st, we'll update our 2022 forecasts again and we'll start the cycle all over again in February of 2023, when we'll release our first forecasts for 2023. And then we'll have our first 2022 state estimates in late August or earlier September 2023. Our data is released at 11 PM eastern time on the ERS website. That same day we also have a public webinar where I discuss the latest forecasts. Webinars are recorded, so prior webinars are available for review currently on our website. Now, we combine a lot of data from many data sources to derive our estimates and forecasts.

One important source of data is the Agricultural Resource Management Survey or ARMS, which Dipak is going to talk about next. So, Dipak, go ahead and take it over.

Thank you, Carrie for passing along. ERS released our new ARMS Data Dissemination Tool that allows for more user interaction include charting capability and has an application program interface for direct queries. So, I'm excited to tell you about ARMS Data Dissemination Tool.

ARMS is one and only farm financial informations of U.S. farm sectors including farm operations, farm businesses, and farm households. This is a primary source of information on production practices, resource use of U.S. businesses and the financial wellbeing of America's farms households. As you might know, ARMS is an annual survey conducted jointly with USDA's National Agricultural Statistics Service - NASS. ARMS provides information that is useful for objective evaluation of many issues related to agriculture and the rural economy.

There are three primary uses of ARMS data. As Carrie mentioned, for the farm sector estimates and forecasts. ARMS data are used for the farm business estimates and forecasts, and we also use ARMS data for farm household estimates and forecasts. You'll see different ERS webinars that are presented based on the ARMS data as I'm presenting, web data tools that use summarized ARMS data for different types of farms, and you can also see different NASS and ERS postings based on ARMS data. In the ERS website, you see different ERS publications. For example, economic information bulletins, economic research reports. Most of those reports use ARMS data. In the ERS and other publications, Amber Waves publications, Amber Waves findings and Amber Waves features, and also in ERS popular data feature Charts of Note. They all use ARMS information. Sometimes ERS provides information to different sister organizations within the

USDA using ARMS data. For example, in the recent coronavirus food assistance program (CFAP), during that rulemaking process, some of the ARMS information was used.

To get access to ARMS data, first you have to go to ERS homepage, www.ers.usda.gov, and you can see data products part from the left and when you click that data product, you'll see the 'Farm Economy.'

Once you click that link, it will show you the source results for farm economy and by alphabetical order. ARMS is on the top. And you have to click 'ARMS Financials and Crop Production Practices.'

This is a ERS home page and in that circle on the left you'll see the overview and in the middle, there is a tailored report. It's called 'Farm Structure and Finance'. In that same work phase, you will see the questionnaires and manuals. There you can see different year information. For example, ARMS was conducted since 1996. You have all the information regarding ARMS questionnaire, interviewer manual and other presented information that is listed by year.

The ARMS web tool allows for more user interactions. As I said earlier, it includes starting capabilities and a good feature the ARMS web tool does have is API. So that you can use that API keys to pull all the information all at once. ARMS web tools include different tailored reports and it also does have ARMS data analysis features, which I'll show you in the future slides.

The information in the ARMS website web tool includes related to income statements, balance sheets, financial ratios, and operator household income. And we have those informations by different farms, by different regions, by farm operator characteristics. For example, operator's age, principle operator's education. In the income statement, you will see the revenue and expense variables and the balance sheet for assets like liabilities and equity and different financial indicator. For example, those efficiency profitability solvency and liquidity ratios. And you'll see the operator household income by different categories.

In the same ERS homepage on the top left you'll see the 'Overview.' Under that 'Overview' in the middle, you will see the brief video tutorials on how to get access to ARMS web tools kit. It also does have information related to API key and how to get…how to download the data using different softwares.

This is a main lending report for the ARMS Web Tool. If you look at the left side on the top within the circle, you'll see the tailored reports and by default, you'll see the under report farm business balance sheet And in the subject it's all farms and filtered by all farms. That's the default, but when you click that report, you'll see the different 'Tailored Reports.' For example, farm business income statements, financial ratios, structural characteristics, farm business debt repayment capacities, and government payments, etc. In the subject, that's default and you will get by 'All Farms,' but you can also choose 'Farm Business and 'Farm Operator Households.' And you can filter that information by ERS defined 'Collapsed Farm Typology, Economic Class, Farm Typology, Operator Age,' etc. To get the information, what that what do you mean by that

collapse from typology? You just have to move your mouse over that question mark, and it will give you the detailed definition of what kind of information are included under each category.

Here, for example, I am switching that business balance sheet to income statement, and I am focusing on production specialty for dairy. In the later examples, I'll lay out more digital information how you can pull together.

We do have other options to change the tailor reports to ARMS data analysis where you can gather your interested variables by different farm types, and you can filter by different categories as I mentioned earlier. For example, economic class, operator household income, etc. And in the middle, you can view multiple years back to 1996, and you can either choose the year you are interested. For example, here I'm interested in last three years: '18 to '20. You can filter that information by all survey states. As a program, there are 15 major agricultural states we survey each year.

I am giving you an example to look at the U.S. dairy farms financial information from 1996 to 2020 a year. For the example I'm interested more on the gross revenue, cash expenses, net cap farm income, state farm income and number of farms.

In this slide on the left, you'll see that my interested variables, I collected those variables, and, in the middle, you'll see those informations back to 1996. Those line graphs are gross cash farm income, cash expenses, net cash farm income and the data farm income. In the bottom in the bar diagrams, those are the number of farms. As you can see, U.S. dairy farm incomes. What do I mean by dairy farms? Is it persons or more income is coming from dairy farms? So dairy farms income has had been increasing over time. And you can see in 2020, gross cash farm income for daily farms was the record high. But the interesting thing…another interesting thing here is number of dairy farms over time. In 1996, there were over 90,000 dairy farms. But in 2020 it was less than 40,000. So, these examples you know, this is a perfect example of dairy consolidations in recent year.

In the previous slide, you saw those line graph and bar diagram, but underneath that you'll see the data tables as well. So, you have option whether to download data from data tables or you can also download that graph from the web tool.

So, in summary ARMS has been conducted annually since 1996. And this is a greater web tool data dissemination tool, recently developed, that gives you more easy access to ARMS data and you can analyze and compare different farm financial statistics. And we usually update this information once in a year. So, in coming…around the month of December, we'll have data for 2000 or 2021. So, this concludes my remark and I'll pass it to Ashley.

Thanks Dipak. 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 though, I'd like to introduce another panelist who will be helping answer questions today. Joining Carrie and Dipak, we have Agricultural Economist Christine Whitt who also serves in the Farm Economy Branch of our Resource and Rural Economics Division. As a member of the farm income team, Christine primarily leads the development of our farm

household topic pages and data product, which is released alongside the Farm Income and Wealth Statistics data product. Thanks for joining us, Christine.

Now for our first question…In reference to Farm Income and Wealth Statistics, where do you get the underlying data?

Yeah, thank you for that question. There could be two possible interpretations to that question that I'm thinking of. If by data, you mean like our underlying components of income, like where we have cash receipts, we do production expenses because I refer to that as underlying data. I meant, you know, just the components of income. That's available also on our data product page, right in all of those other tables, like I showed you. The value-added table has some of the information on cash receipts and expenses for example. If the question is more about underlying data in that what data do we use to derive our estimates and forecasts, there is some discussion bullets on the side menu where we have some documentation, where we talk about our sources to some degree. But it does come from a variety of sources, a lot of NASS surveys, which all of that data is available on NASS. They have a quick stats application on their website over there. That's the National Agricultural Statistics Service. But we also get underlying data from other agencies. For instance, that administer the various farm programs and make government payments to farmers. But if you have any further questions about our underlying data, or how we derive our data you know, I encourage you to reach out to us. You can see on this slide right here, there's two email addresses and those go directly to us. So, if you email the farm income team, Dipak, Christine, and I are all going to get that email and we'd be happy to talk to you about this further. So, thank you.

Thanks, Carrie. For our next question, does the ARMS web tool provide information regarding government payments?

I'll go ahead and send this question over to Dipak.

That's a great question. I use, kind of, for a year, for example 2020, when the government payments were record high at over 45 billion, most farm operations, about 40 percent of all farm operations received some government payments. I would like to provide you some more comparison, as compared to 2019. That number is 10 percent more or about 200,000 more farm operations received some government payments in 2020 compared to 2019. And as I just show you under that tailored reports there is a government payments category. So, when you click that, you will have all the information like different farm types and by different economic class or class farm types.

Thanks, Dipak. For the next question…Can you tell me about the ARMS sample?

Yes, I'll go ahead and send that back to Dipak too if you would like to take it.

ARMS is an annual survey, and we have, we usually send out 30,000 surveys every year. And in the recent years, there is, there was around 40 percent visible examples of those 30,000 surveys sent out. But that information, I think in the past back in 2012 and 2014, the usual sample size was about 70 percent, but in recent year it has been declining. But still, we have a good sample size, so that we are able to produce reliable estimates using ARMS.

Okay, thanks. For our next question…Do you have balance sheet information on the state level?

This is Carrie. No, we do not. We do not in the Farm Income and Wealth Statistics, have balance sheet information by state. But I will say that the ARMS web tool does have some. So, for the 15 states that Dipak mentioned, it does have some regional totals. But that's about as good as we have right now, but not in the Farm Income and Wealth Statistics.

Alright, next question…ARMS is a big questionnaire, not to mention all the other NASS surveys, NASS being the National Agricultural Statistics Service, do you have to confront the issue of farmer response for this?

Yes, I'll hand it over to Dipak on this if he has anything to add, but yeah, we're very aware that we've, that USDA is asking you, trying to get information from farmers and it's a number of surveys. And we work very closely, the ARMS is conducted as Dipak mentioned, in coordination with NASS, so they're very aware of, you know, how many surveys they're asking farmers to complete. For instance, in a year we have a Census of Agriculture coming up for 2022. Farmers will not be asked to complete both an ARMS and the Census. Those who receive ARMS that will count as also their completion of the Census. But we do want to encourage, you know, we know these surveys are long and take time to fill out, but they really do provide us with information that is extremely valuable and useful to a wide user group, which I think I tried to get out of my presentation is just how important these data are. And when we can get it directly from the farmers, it's often the best source of data. Dipak, do you have anything that you want to add on that?

I think Carrie, you validated it nicely there. And I would like to say that ARMS is the farmer's chance to tell the story of American agriculture. So, that means that information will go back to farmers for their own decision making.

Thanks. For our next question, you talked about forecasting on farm income but is there any forecasting on farm households?

Yes, and that is one reason we're happy to have Christine as part of our panel here today. She does our estimates and forecasts for farm households. So, Christine would you like to provide some information on that?

Yea, I can provide some information. So, as my sort of into alluded to, we do provide household level forecasts alongside the farm income and wealth statistics data product, but it is technically a separate data product. So, if you go to our data product, the farm economy data product page and scroll a bit further down, you will find the farm household data product page. And that is where we have all of our forecasts, and it's similar in essence to or has the same timeline as the farm income and wealth statistics. So, we're going to be providing estimates and forecasts at the…for the same years and match up to the farm income and wealth statistics data product as well.

Great! Thanks, Christine. For our next question…Can I find which state has the most farms using ARMS web tools?

Yeah, Dipak would you like to pick that one?

Sure, as Carrie also reemphasized, the ARMS survey are conducted in 15 major agriculture states and when you look at the state level information, there is a variable called farms, that's a number of farms. And if you look at that information, you can find which state does have, you know, more farms. I think Iowa does have the most farms in U.S.

Yeah, I'll just add that if you need all 50 states number of farms, that our sister agency – the National Agricultural Statistics Service – they have that readily available: all 50 states where you can get a ranking to see which one's at the top.

Thank you both. For the next question…Are the data available at the county level within each state?

No, neither the farm income or wealth statistics or the ARMS Data Dissemination Tool has county level data. But we do have some resources that we can point you to. We do have a 'frequently asked question' on this in the Farm Income and Wealth Statistics data product. But if you're interested in county level data, you can look at the Census of Agriculture, which is administered by NASS again, or also the Bureau of Economic Analysis. They put out county level data, and I think it's important to note that their data, they start with our state level data. So, we provide them that input that they can then break it down to county level data using additional information that also largely comes from USDA as well.

Good to know. Okay, for the next question…Why are state data a year behind the release of U.S. data?

Yeah, thank you for that question. We don't do forecasts at the state level, so that's why they may appear to be a year behind. So, right now for instance we're only forecasting U.S. 2022 Farm Income and we don't do U.S. level forecasts because primarily of the difficulty and the data requirements in order to do so at the state level. So, when we're able to start doing estimates, even U.S. estimates, it's about 16 months - 18 months after the end of the calendar year because at that point, we start getting, we get responses from other survey-based data from NASS; we get administrative data from other sources that really help us get observed information on state level net farm income.

Okay, thanks. And next question…How ERS farm income forecasts…or how are ERS farm income forecasts different than ERS baseline farm income projections?

Well one of the first primary differences is the ERS Farm Income and Wealth Statistics data are short runs. So, we are only doing the current calendar year, and we are not going beyond that. The baseline projections go out much further, many years into the future. But there is…They do start from…The baseline does start from the latest ERS Farm Income and Wealth Statistics forecast. So, that's kind of their jumping off point. And Dipak if you want, Dipak works directly on the baseline if he wants to add anything about, anything else maybe about that process.

Yes, I think for the U.S. Farm Income Baseline projections, we use October WASDE information. And the baseline is the projection. It's not a forecast. So, as Carrie said, we use that December, November - December farm income forecast as a basis for the projections. So, there

are different data components goes into the baseline process, which are different than farm income forecasts. So, that is the main reason for having the different projections and the forecast.

Thanks. For the next question…When is the next diverse family farms report coming out?

Yeah, Christine do you want to talk about that question?

Yeah, I can cover that. So, the next release of the Diverse Family Farm Report, which will be highlighting the new 2021 Agricultural Resource Management Survey, will be published December 6[th.]

So, it's going to have a new name too, right?

That is correct, yes. Thank you for reminding me. We're also changing the name. So, it was previously known as the America's Diverse Family Farm Report, but from here…for the foreseeable future, it will be called America's Farms and Ranchers at a Glance. Thank you for reminding me, Carrie.

Thanks, Christine. Our next question…What is the difference between real…I'm Sorry. What is the difference between real and nominal dollars?

Yes, when we talk about nominal dollars, it means we're just reporting the value in the year that it occurred. You know, so we're talking about sales, how much they call you know how much they got for instance in their sales or their cash receipts, the year in which they receive them in, in that there's no adjustment to the value. This is the current value. When we talk about real, we're making an adjustment for inflation so that all the values can be consistent in terms of you know what is the real value once you would hold inflation constant. For our forecasts and estimates, we always do the inflation adjustment with the forecast year or the current year being the base. So, for right now, we're taking…that's 2022. So, in our tables all values for years prior to '22 are adjusted to account for inflation in 2022. So, it's a more even comparisons across time because we know that you know, you know historically, people would say you know, the value of a gallon of milk 50 years ago is quite a bit higher than it is now. But when you account for inflation, you're putting them on a more level field. So that's what we mean with the inflation adjustment.

Okay, and then for the next question…Interest rates are currently in the news a lot right now. Can we get any data about farms with debt from the ARMS web tool?

Dipak, would you like to take that question?

Sure, that's a great question. In the tailored reports, there is a report called Farm Debt Repayment Capacity. If you click that tailored report, you can find the total number of farms and you can also find number of farms with a date. So, if you do simple automatic, I think using 2020 data, you can find 25 percent of all U.S. farms have some data. And it's interesting to mention because most of the farms they don't carry debt from year to year, but they might have some operation, operational credit, which will be paid out by end of the year.

Thanks Dipak. Next question: Can I find irrigation acreage and ARMS web tool on the state Level?

That's an interesting question, but irrigation data…The web tool is limited to what we call ARMS Phase III, so I don't think it has. I don't know. I should not even try. I'll take it over to Dipak to see if Dipak has an answer to that.

I think we don't have we don't have that information in ARMS work tool, but recently ERS published some irrigation report, which might be some information, but we don't have that information in our ARMS web tool. But I can, I'm happy to provide any information if we have from different sources because we have different programs. They closely work with the irrigation information.

Thanks, Dipak. For the next question: The example about dairy operations was interesting. Can I find those data by state?

Yeah, that was Dipak's example if you want to take that Dipak.

Yes, and that's a great question. You can do that by clicking major states. In that example I showed I did show the overall previous information, but we can have that information broken down by those 15 states and by regions.

Okay and for this next question…Many farms are operated by those who are not primarily engaged in farming. Does farm…I'm sorry, does ARMS provide information about those farm operations?

Short answer – yes because ARMS is sent to farmers of all types. But Dipak, do you want to take that question further?

Sure. In those tailored reports, you'll see that collapse by typology included by options, you will see residence farms, intermediate farms, and commercial farms. If you will, residence farms are small farms, and which are those that makes less than $350,000 in farm income and the principal operator is either retired or has a primary occupation rather than farming. In ARMS data, using web tools, you will find almost 50 percent of the farms, they belong to that category. So, that's why they are the, there are many farms who are not primarily engaged in farms. So, for that, as I said, you know you have to choose that residence category to get the number of farms and other financial characteristics.

Thanks Dipak. And for the last question that we have time for today…Are the net farm income data broken down further in the ARMS tool?

Yeah, that's another one for Dipak if you'll take that please.

Sure, that's a great question. ARMS web tool has net farm income data broken by different types of farms. For example, those resident farms, intermediate farms, and the big farms – commercial farms we call it. And you also get net farm income, net farm income broken by economic class that's based on the gross sales. We also have the different category called farm typology. This is based on the primary occupation for principal operators and gross net farm income. And we also

have that information broken down by operator age, farm business, and resource reasons and production specialty as I did show in the example – dairy. You also find the net farm income broken down by different commodities for example corn, soybean, cattle, poultry, etc.

And I will also add in case this is a direction the question or the question was intended to go, it does have the net cash and net farm income component. So, it does have information on sales and expenses similar to the farm income and wealth statistics, but not identical, but it does have some of those components of income.

Good to know, thank you. Okay, that's all the time we have for today. Carrie, Dipak, and Christine, thank you for sharing your insights. I'd like to thank our listeners today for joining us as well. We hope this has been helpful for you.

Before closing, I'd like to quickly highlight our newsroom webpage at www.ers.usda.gov/newsroom. Here you can find the latest news from ERS along with recordings of past webinars. Click the trending topics shortcut for current research on a variety of topics or navigate to our webinar page at the bottom left-hand side of the screen there you can find recordings of all our past webinars. Be sure to stay tuned for more ERS webinars coming this fall too.

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Again, thank you for joining us today. This concludes our webinar.