# Examining Farm Size & Payment Limits

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Explosive growth in productivity over the last 100 years – coupled with extraordinary innovation in mechanization – has meant that fewer and fewer people are needed to feed, clothe, and fuel our nation. Perhaps no one has captured this sentiment better than U.S. Secretary of Agriculture Tom Vilsack, when at a Congressional hearing in February 2016 he said:

"Every one of us that is not a farmer is not a farmer because we have farmers. We delegate the responsibility of feeding our families to a relatively small percentage of this country. If you look at 85 percent of what is grown in this country, it is raised by 200,000 to 300,000 people. That is less than one-tenth of 1 percent of America.

"But the other 99 percent of us can be lawyers and doctors and Peace Corps volunteers and economists and people that work for government and all of the other occupations because we never think about, well, gee, do I have to actually grow the food for my family? No. I go to the grocery store and get it.

"So, I am free to do whatever I want to do with my life. That is an incredible freedom that we take for granted in this country. It is not true in most of the countries in this world. And then when we go to the grocery store, we walk out of it with more money in our pocket as a percentage of our paychecks than anybody else in the world."<sup>1</sup>

The U.S. has been on this path of fewer but larger farms since the beginning of the last century. Data from the 1920 Census indicated there were 6,448,343 farms with an average farm size of 148.2 acres.<sup>2</sup> According to the 2017 Census of Agriculture, in 2017 there were 2,042,220 farms with an average farm size of 441 acres.<sup>3</sup> Not only has average farm size been growing, it is also resulting in a shift in the composition of farms. One of the pioneers in all of agricultural economics, Earl Heady, from Iowa State University, predicted this 40 years ago:

"We are heading towards a bimodal farm distribution wherein we will have a rather large number of part-time, retirement, and similar farms where it is not chiefly size economies which tie them to the land, but the utility they realize from the set of satisfaction derived from country living and a smaller number of larger farms which dominate the nation's food and fiber production."<sup>4</sup>

Heady's observations have materialized as reflected in Figure 1. According to USDA's Economic Research Service (ERS), "Most farms are small, but the majority of production is on larger

<sup>&</sup>lt;sup>1</sup> <u>https://www.govinfo.gov/content/pkg/CHRG-114hhrg20558/pdf/CHRG-114hhrg20558.pdf</u>

 <sup>&</sup>lt;sup>2</sup> 1920 Census of Agriculture. Accessed at <u>https://agcensus.library.cornell.edu/census year/1920-census/</u>
<sup>3</sup> 2017 Census of Agriculture. Accessed at

https://www.nass.usda.gov/Publications/AgCensus/2017/Full Report/Volume 1, Chapter 1 US/usv1.pdf <sup>4</sup> Heady. Discussion: Purposes and Uses of Economics of Size Studies in Economies of Size Studies: A collection of

papers presented August 3-4, 1983, at a workshop at Purdue University sponsored by NCR-113 (Farm Financial Management Committee, Farm Foundation and USDA Center for Agricultural and Rural Development.

farms."<sup>5</sup> ERS also noted that small-scale operators depend on off-farm income while large-scale farms derive almost all of their income from the farm. It is important to note here that 98% of farms, irrespective of size, are family owned and operated. ERS has observed that most of the "nonfamily" enterprises operate in high-value specialty crops (e.g., wine grapes) that are not impacted by Title 1 farm program payment limits (although they too are impacted by payment limits on other programs, most notably ad hoc disaster assistance). Moreover, many in the "small" and even "midsize" category are in fact part-time, retirement, or lifestyle farms that fundamentally do not rely upon the farm income to continue.



Figure 1. Median income of farm households, by income source and farm type, 2021

Heady's observations also have significant policy implications. Namely, who is the farm bill – and the farm safety net in particular – intended to benefit? In remarks during a March 16, 2023, hearing before the Senate Committee on Agriculture, Nutrition, and Forestry, Secretary Vilsack testified that "our policies have ensured an increasingly abundant food supply, growth in farm size and consolidation has put extreme economic pressure on small and medium sized farms and our rural communities.... We must ask ourselves: do we want a system that continues to force the big to get bigger and the small and underserved to get out or do we want a build a more innovative system?"

<sup>&</sup>lt;sup>5</sup> <u>https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income/</u>

This statement by Secretary Vilsack appears to be a reaction to the answer to a question from a reporter by President Trump's Secretary of Agriculture, Sonny Perdue at the World Dairy Expo in Madison, Wisconsin on October 1, 2019. It was reported he said "get big or get out", however transcripts from the event indicate the reporter used this quote in a follow-up question rather than being said by Secretary Perdue. Secretary Perdue's quote that was labeled "get big or get out" is summarized below.<sup>6</sup>

"The 2018 farm bill will stem the flow of that. Now, what we see obviously, is economy of scale having happen[ed] in America, big get bigger and small go out, and that's kind of what we've seen here. It's very difficult in the economy of scale, with the capital needs, and all the environmental recommendations, and everything else today, to survive milking 40, 50, 60, or even 100 cows."

The United States has grappled with this small-farm versus large-farm debate for decades. Congress has invested a significant amount of resources in helping small, beginning, sociallydisadvantaged, limited resource, and veteran producers get started in production agriculture. Congress has also significantly curtailed access to the farm safety net via means testing, actively engaged determinations, and payment limits. In this report, we delve into these topics, examining economies of size in production agriculture and exploring the implications of payment limits in particular.

#### Economies of Size in Agriculture: An Economic Review

The topic of economies of size in agriculture is one of the most researched areas in agricultural economics (Madden<sup>7</sup>; Shertz<sup>8</sup>; Hall and LeVeen<sup>9</sup>). In general, economies of size studies have attempted to discern the relationships between the size of a firm and the unit cost of a commodity (Harrington).<sup>10</sup> Anyone who studies production economics or economics in general has been trained that all cost relationships can be expressed in terms of unit cost curves of a single or composite product for various firm sizes. This is important because the long-run average cost (LRAC) curve is the envelope of the short-run average cost (SRAC) curves (Figure 2).

Most agricultural economists have been trained that the shape of the LRAC curve is more in line with Figure 3, meaning that there is a range of output where it is beneficial to a producer to

<sup>&</sup>lt;sup>6</sup> Heemstra (accessed at <u>https://drgnews.com/2019/10/09/us-ag-secretary-setting-the-record-straight-about-get-big-or-get-out-claim/</u>).

<sup>&</sup>lt;sup>7</sup> Madden. Economies of Size in Farming. AER-107. Washington, D.C.: Economic Research Service, U.S. Department of Agriculture, 1967.

<sup>&</sup>lt;sup>8</sup> Shertz. Another Revolution in U.S. Farming. USDA: AER Report #441, 1979.

<sup>&</sup>lt;sup>9</sup> Hall and Leveen. Farm Size and Economic Efficiency: The Case of California. American Journal of Agricultural Economics 60(1978):589-600.

<sup>&</sup>lt;sup>10</sup> Harrington. Purposes and Uses of Economies of Size Studies in Economies of Size Studies: A collection of papers presented August 3-4, 1983, at a workshop at Purdue University sponsored by NCR-113 (Farm Financial Management Committee, Farm Foundation and USDA Center for Agricultural and Rural Development.

increase output. There has always been the thought that the LRAC curve turns up at some level of output (seen in Figure 3) making it less profitable to continue to increase size.

Recent studies indicate that the LRAC cost curve may actually be L shaped which would mean that farm economics would dictate greater expansion of output does not result in lower per unit profits (Duffy<sup>11</sup>; Hallam<sup>12</sup>). It is also difficult to blame farmers for increasing the size of their operations given that productivity growth is the principal factor responsible for 80 percent of the sector's post-war growth (Pardey and Alston).<sup>13</sup>



Figure 2. Long-run average cost curve (LRAC) is the envelope of short-run average cost curves (SRAC).

<sup>&</sup>lt;sup>11</sup> Duffy. Economics of Size in Production Agriculture. Journal of Hunger & Environmental Nutrition, 2009 July 4(3-4):375-392.

<sup>&</sup>lt;sup>12</sup> Hallam. Economies of Size and Scale in Agriculture: An Interpretive Review of Empirical Measurement. Review of Agricultural Economics, Vol. 13, No. 1, January 1991.

<sup>&</sup>lt;sup>13</sup> Pardey and Alston. Unpacking the Agricultural Black Box: The Rise and Fall of American Productivity Growth. Journal of Economic History, Vol. 81, No. 1 (March 2021).



Figure 3. Theoretical Shape of the Long-run Average Cost (LRAC) Curve.

In a summary by USDA-ERS economists, structural change in livestock production facilitated productivity growth, cost reduction, and increased international competitiveness, while in crops, labor-saving substitution and technical change have been important.<sup>14</sup> Nigel Key (also with USDA-ERS) found that larger farms in the Midwest are more productive than smaller farms.<sup>15</sup> In addition, he found that policies focused on large farms would have increased aggregate total factor productivity more than 32 times more than similar policies targeting the smallest farms. His results support the notion that it is the increase in size that has kept the U.S. in its place as a low-cost producer of corn and soybeans.

By any account, increasing efficiency and size has also facilitated enormous increases in productivity, with the benefit accruing to consumers. Perhaps it has become trite to say the U.S. food supply is the safest, most abundant, and most affordable in the world, but it is an important truth, and it is inexorably connected to the productivity of U.S farms.

#### Economies of Size and Profitability

The percent of farms and land in farms gathered in the ARMS survey and published by USDA is presented in Table 1 by sales class. Many have seen this data so often that we are numbed to the implications of what the economic sales class means. This means that farms that sell

<sup>&</sup>lt;sup>14</sup> MacDonald, Hoppe and Newton. Tracking Consolidation in U.S. Agriculture presented at Farm Size and Productivity: A Global Look. Washington DC, February 2-3, 2017 (accessed at <u>https://www.farmfoundation.org/wp-content/uploads/attachments/1942-Session 1 MacDonald Hoppe Newton.pdf</u>).

<sup>&</sup>lt;sup>15</sup> Key. Farm Size and Productivity Growth in the United States Corn Belt. Food Policy, 84(2019):186-195.

between \$1,000 and \$9,999 represent 51 percent of all farms and work a little more than 9 percent of the land. What gets lost in this is that sales class is a very different thing from farm profit.

	Number of Farms (%)	Land in Farms (%)	Average Farm Size (Acres)
\$1,000 - \$9,999	51.0	9.3	81
\$10,000 - \$99,999	30.5	20.8	304
\$100,000 - \$249,999	6.7	14.7	973
\$250,000 - \$499,999	4.4	14.3	1,448
\$500,00 - \$999,999	3.5	15.4	1,942
\$1,000,000 or more	3.9	25.5	2,920
Total	100.0	100.0	445

Table 1. Percent of Farms and Land in Farms Along with Average Farm Size by Economic Sales Class, U.S., 2021.

Source: Farms and Land in Farms 2021 Summary (February 2022)

USDA, National Agricultural Statistics Service (accessed at

https://www.nass.usda.gov/Publications/Todays\_Reports/reports/fnlo0222.pdf).

The actual profit margin (what is left after expenses are paid) in U.S. agriculture varies by crop, year, and farm. As noted by Langemeier, the profit margin for Western Indiana corn growers averaged 6% over the 2015-19 period and was projected to be 3.6% and 3.4%, respectively for 2020 and 2021.<sup>16</sup> Even if you assume a more optimistic 10% profit margin on \$100,000 annual gross sales for a farm, that only leaves \$10,000 profit for the farm in a year.

Table 2 takes the data from Table 1 and multiplies the economic sales classes by 10% to translate into a proxy for farm profits. While each individual has their own level of income they would need to live on from farming, it is quite apparent that you have to get close to \$500,000 in sales to return a profit level that would be in the area of what most would call a living wage (or \$50,000). While this example would yield a living wage (by this definition), that is far from the full story. To be clear, we are talking about a scenario where \$500,000 is being put at risk – and crop production is a very risky enterprise – in hopes of earning \$50,000.

It should be clear that those "farmers" operating with receipts that are not capable of sustaining their families rely upon outside sources for income. In most cases, these are people who are living their best life as described by Earl Heady above. Why does it matter? It doesn't as long as

<sup>&</sup>lt;sup>16</sup> Langemeier (accessed at <u>https://ag.purdue.edu/commercialag/home/sub-articles/2020/09/measuring-farm-profitability/</u>).

policies are not designed to reward those living a lifestyle while hurting those actually trying to earn a living from agriculture.

	Number of Farms (%)	Land in Farms (%)	Average Farm Size (Acres)
\$100 - \$999	51.0	9.3	81
\$1,000 - \$9,999	30.5	20.8	304
\$10,000 - \$24,999	6.7	14.7	973
\$25,000 - \$49,999	4.4	14.3	1,448
\$50,00 - \$99,999	3.5	15.4	1,942
\$100,000 or more	3.9	25.5	2,920
Total	100.0	100.0	445

Table 2. Percent of Farms and Land in Farms Along with Average Farm Size by Farm Profitability, U.S., 2021.

Source: Farms and Land in Farms 2021 Summary (February 2022)

USDA, National Agricultural Statistics Service (accessed at

https://www.nass.usda.gov/Publications/Todays Reports/reports/fnlo0222.pdf).

## Economies of Size and Terms of Trade

There is another facet to economies of size that needs to be considered in this discussion. When producers of a commodity are known as the low-cost producer, this generally goes hand-in-hand with having taken advantage of economies of size to lower production costs. Economies of size can affect international competitiveness and changes in terms of trade (Hallam).<sup>17</sup>

Even though farmers in the U.S. have been consolidating and increasing the size and scale of operations, the share of exports for many commodities has been declining as countries around the world increase the size and scale of their operations in order to compete with U.S. farmers. Figure 4 shows how the U.S. share of world trade has declined over the past 50 years. Even with a tremendous boost in productivity in the U.S., the share of world exports has declined for most of the major crops.

So what? Think of what would have happened if the United States hadn't been consolidating and becoming more competitive on the LRAC cost curve. The results would be considerably worse, both for American producers (in terms of market share) and for consumers world-wide.

<sup>&</sup>lt;sup>17</sup> Hallam. Economies of Size and Scale in Agriculture: An Interpretive Review of Empirical Measurement. Review of Agricultural Economics, Vol. 13, No. 1, January 1991.



**Figure 4. U.S. Share of World Trade by Major Commodity, 1979/71 to 2022/23.** Source: Data was obtained from USDA-FAS, Production, Supply and Distribution PS&D online database (accessed at <u>https://apps.fas.usda.gov/psdonline/app/index.html - /app/advQuery</u>).

Consider the loss in share relative to Brazil's increase in trade shares for corn and soybeans (Figures 5 and 6). Brazil currently exports more corn and soybeans than the United States; however, this is a new phenomenon in corn while Brazil's trade share surpassed the U.S. for soybeans somewhere around 2015. There are plenty of economic and policy reasons why this has occurred, including their relatively small domestic use of corn and soybeans, but one additional thing to consider is the relative size of operations in Brazil (and the relationship between size and cost competitiveness). Figure 7 provides a comparison of the percentage of farms by size in each of the countries. More research is needed here; however, it is interesting and noteworthy that in Brazil nearly 50 percent of their operations are over 1,000 acres, while in the United States 50 percent of the operations are below 100 acres.



#### Figure 5. U.S. and Brazil Corn Export Shares.

Source: Data was obtained from USDA-FAS, Production, Supply and Distribution PS&D online database (accessed at <a href="https://apps.fas.usda.gov/psdonline/app/index.html-/app/advQuery">https://apps.fas.usda.gov/psdonline/app/index.html - /app/advQuery</a>).





Source: Data was obtained from USDA-FAS, Production, Supply and Distribution PS&D online database (accessed at <a href="https://apps.fas.usda.gov/psdonline/app/index.html-/app/advQuery">https://apps.fas.usda.gov/psdonline/app/index.html - /app/advQuery</a>).



#### Figure 7. Share of U.S. and Brazilian Farms by Size.

Source: STRATFOR. Accessed at https://worldview.stratfor.com/article/us-brazil-farm-size-comparison

#### **Policy Considerations**

The farm safety net – including the permanent disaster programs – are all based on per-unit or per-acre payment rates that scale with the size of losses. This makes sense given that mitigating risk is the underlying purpose of these programs. While payments are calculated based on the magnitude of the loss, payment limits are then applied as a final step before USDA issues payments. Importantly, payment limits do NOT entitle a producer to a payment of that magnitude; rather, it simply limits the amount of losses for which the producer can receive assistance – meaning that any losses exceeding the payment limit are borne entirely by the producer.

#### History of Payment Limits

Payment limits first appeared in the 1938 Farm Bill, limiting producers to \$10,000 per person per year. Modern-day payment limits trace their roots to the 1970 Farm Bill, which implemented a \$55,000 payment limit for *each* of the annual programs for wheat, feed grains, and cotton in crop years 1971, 1972, and 1973 – for an effective payment limit of \$165,000 if producers grew all three crops. The 2018 Farm Bill imposes a limit of \$125,000 per person or legal entity (with the exception of joint ventures and general partnerships) for ARC and PLC. Several other programs are also subject to payment limits as noted in Table 3.

Program Payment Type	Per person or Legal Entity (or producer for TAP) Per Year Limitation Amount 2019 Through 2023
Commodity Programs	
Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) – other than peanuts	\$125,000 1/
Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) – peanuts	\$125,000 1/
Conservation Programs	
Conservation Reserve Program (CRP) – annual rental payment and incentive payment	\$50,000
Emergency Conservation Program (ECP) – per disaster event	\$500,000 <sup>2/</sup>
Emergency Forest Restoration Program (EFRP) – per disaster event	\$500,000
Conservation Stewardship Program (CSP)	\$200,000
Environmental Quality Incentives Program (EQIP)	\$450,000
Agricultural Management Assistance (AMA)	\$50,000
Disaster Assistance Programs	
Livestock Forage Disaster Program (LFP)	\$125,000 4/
Noninsured Crop Disaster Assistance Program (NAP)	\$125,000/\$300,000 <sup>3/</sup>
Tree Assistance Program (TAP)	1,000 acres <sup>5/</sup>

#### Table 3. Summary of USDA Program Payment Limits

Source: Source: https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/payment-elligibility-limitations-factsheet.pdf

While payment limits have historically been focused on Title 1, the 1981 Farm Bill added a \$100,000 limit for disaster payments for wheat, feed grains, upland cotton, and rice for each of the 1982 through 1985 crop years. More recently, the 2014 Farm Bill established permanent baseline for several disaster programs, including the Livestock Forage Program (LFP), the Emergency Assistance for Livestock, Honeybees and Farm-Raised Fish Program (ELAP), the Livestock Indemnity Program (LIP), and the Tree Assistance Program (TAP). While all of these were initially payment limited in some form, following successive natural disasters, Congress has chosen to relax the payment limitations for these programs, as reflected in Table 4.

Disaster Programs	2014 Farm Bill	Bipartisan Budget Act of 2018	2018 Farm Bill	
Livestock Forage Program (LFP)			\$125,000 limitation	
Emergency Assistance for Livestock, Honeybees and Farm- Raised Fish Program (ELAP)	Combined \$125,000 payment limitation; total annual cap of \$20 million on ELAP spending	Combined \$125,000 limitation; no cap on ELAP spending	No payment limitation; no cap on ELAP spending	
Livestock Indemnity Program (LIP)		No payment limitation	No payment limitation	
Tree Assistance Program (TAP)	Separate \$125,000 payment limitation; maximum of 500 acres	No payment limitation; maximum of 1,000 acres	No payment limitation; maximum of 1,000 acres	

Table 4. Recent Payment Limit Changes for Disaster Programs

Source: author compilation.

#### Payment Limits in Context

#### Have payment limits kept up with inflation?

As noted above, modern-day payment limits trace their roots to the 1970 Farm Bill with a \$55,000 payment limit for *each* of the annual programs for wheat, feed grains, and cotton in crop years 1971, 1972, and 1973. Figure 8 illustrates the magnitude of that payment limit (\$55,000 for a single program/crop) were it in place today and indexed for inflation. In fact, that \$55,000 payment limit would be \$413,247 today, more than three times larger than the current *combined* payment limit of \$125,000 per person or legal entity applying to all covered commodities eligible for ARC and PLC. If the limits from the 1970 Farm Bill were combined for a producer growing all three crops (i.e., \$165,000), the payment limit today would be just over \$1.2 million. Again, this doesn't mean a producer is entitled to a payment of \$1.2 million; it simply means that any losses up to \$1.2 million could be covered. Instead, under current law, any losses beyond \$125,000 are borne entirely by the producer.



Figure 8. Initial 1970 Farm Bill Payment Limit (\$55,000) Indexed for Inflation.

## Aren't payment limits good for small farms?

While we've long heard arguments that payment limits help smaller producers, evidence of that actually being the case is harder to come by. Instead, payment limits tend to simply limit support available for larger producers. There are certainly exceptions. In the case of ad hoc assistance that is provided as a finite amount of funding allocated to USDA – for example, the funding provided for implementing the Emergency Relief Program – the payment limit could funnel more support to smaller producers by leaving larger full-time producers to face more exposure on their own. But, importantly, in the farm bill debate, these arguments that payment limits help small producers really hold very little water. We examined CBO scores for the last several farm bills and see virtually no case where the imposition of payment limits freed up significant additional funding for programmatic improvements for smaller farms.

# With means testing and actively engaged requirements, what purpose does the payment limit serve?

USDA dedicates 558 pages in its "short reference" to explaining eligibility rules and limitations. Importantly, producers must qualify as actively engaged in farming to be eligible for assistance, including (1) making a significant contribution to the farming operation of capital, equipment, or land, or a combination thereof; (2) making a significant contribution to the farming operation of active personal labor, active personal management, or a combination thereof; (3) sharing in the profits or losses from the farming operation at a level that is commensurate with the person or entity's contributions to the operation; and (4) their contributions to the farming operation must be at risk for loss, with the level of risk commensurate with the person or entity's claimed share of the farming operation. Beyond that, producers must also certify that their three-year average Adjusted Gross Income (AGI) is less than \$900,000 to be eligible for programs like ARC and PLC. With these provisions in place, what purpose does the payment limit serve? Beyond that, in light of the focus on risk management, this question becomes even more acute. On the one hand, Congress is providing tools to help producers mitigate risk; on the other, they are completely undermining those tools with payment limits that become even more binding as the losses mount, a topic we explore in detail in the following section.

#### **Effectiveness of Payment Limits**

In the 2014 Farm Bill, Congress abandoned the Direct Payment program, which made decoupled payments to producers regardless of market conditions. Unfortunately, this shift in policy focus to the provision of risk management tools did not come with a corresponding discussion on the appropriate role of payment limitations. For example, if producers only receive assistance when they face market losses, does it make sense to apply a payment limit that completely undermines the efficacy of the programs themselves (especially in light of all of the other requirements that a producer must meet to be eligible in the first place).

In fact, the payment limit is a regressive policy tool. As the loss grows deeper, the payment limit results in a smaller and smaller share of the loss being indemnified, as illustrated in Figures 9 through 11 and Tables 5 through 7 for wheat, corn, and cotton, respectively. For example, in Figure 9, if the marketing year average price for wheat is \$5.33/bu (or 3% below the \$5.50/bu Reference Price for wheat) and assuming a 41.5 bu/ac yield (equal to the national average PLC yield) along with an 85% payment factor, the \$125,000 payment limit would allow for a full payment on over 20,000 acres. What if the loss is deeper – say a marketing year average price of \$4.13/bu (or half-way between the Reference Price and Loan Rate for wheat)? In that case, a producer would be limited to support on just 2,571 acres.

This is illustrated even more clearly in Table 5. If the average wheat price for the marketing year fell to \$2.94/bu (equal to the Loan Rate), the payment limit would have the effect of reducing support by 91% compared to what producers would have otherwise received on a 15,000-acre operation. But, that only impacts large farms right? Well, in fact, a fairly small- to standard-sized wheat operation of 3,000 acres would see their support reduced by more than 50% due to the payment limit. So, the idea that the payment limit protects smaller or mid-sized operations just doesn't add up. To add insult to injury, the payment limit is most binding when the support is most needed.

As noted in Figure 12 and Table 8, this dynamic is even more pronounced for ARC. Using corn as an example, we assume a county average yield of 180 bu/ac and project the crop year 2025 benchmark average price using the latest WASDE price forecast. At a marketing year average price of \$3.64/bu (which would barely trigger a payment under PLC), a 3,000-acre corn farm enrolled in ARC would be limited to support on just 890 acres. The payment limit would have the effect of reducing support by 70% compared to what producers would have otherwise received in that scenario.



Figure 9. Wheat Acres Receiving Full PLC Payment by Marketing Year Average Price.

Table 5	ble 5. Reduction in PEC Payments for wheat due to imposition of \$125,000 Payment Limit.									
	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	13,500	15,000
\$5.33	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
\$5.16	0%	0%	0%	0%	0%	0%	-2%	-14%	-24%	-31%
\$4.99	0%	0%	0%	0%	-9%	-24%	-35%	-43%	-49%	-54%
\$4.82	0%	0%	0%	-14%	-31%	-43%	-51%	-57%	-62%	-66%
\$4.65	0%	0%	-9%	-31%	-45%	-54%	-61%	-66%	-70%	-73%
\$4.48	0%	0%	-24%	-43%	-54%	-62%	-67%	-71%	-75%	-77%
\$4.31	0%	-2%	-35%	-51%	-61%	-67%	-72%	-76%	-78%	-80%
\$4.13	0%	-14%	-43%	-57%	-66%	-71%	-76%	-79%	-81%	-83%
\$3.96	0%	-24%	-49%	-62%	-70%	-75%	-78%	-81%	-83%	-85%
\$3.79	0%	-31%	-54%	-66%	-73%	-77%	-80%	-83%	-85%	-86%
\$3.62	0%	-38%	-58%	-69%	-75%	-79%	-82%	-84%	-86%	-88%
\$3.45	0%	-43%	-62%	-71%	-77%	-81%	-84%	-86%	-87%	-89%
\$3.28	0%	-47%	-65%	-74%	-79%	-82%	-85%	-87%	-88%	-89%
\$3.11	-2%	-51%	-67%	-76%	-80%	-84%	-86%	-88%	-89%	-90%
\$2.94	-9%	-54%	-70%	-77%	-82%	-85%	-87%	-89%	-90%	-91%

Table 5. Reduction in PLC Payments for Wheat due to Imposition of \$125,000 Payment Limit.



Figure 10. Corn Acres Receiving Full PLC Payment by Marketing Year Average Price.

	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	13,500	15,000
\$3.60	0%	0%	0%	0%	0%	0%	-3%	-15%	-25%	-32%
\$3.50	0%	0%	0%	-15%	-32%	-44%	-52%	-58%	-62%	-66%
\$3.40	0%	0%	-25%	-44%	-55%	-62%	-68%	-72%	-75%	-77%
\$3.30	0%	-15%	-44%	-58%	-66%	-72%	-76%	-79%	-81%	-83%
\$3.20	0%	-32%	-55%	-66%	-73%	-77%	-81%	-83%	-85%	-86%
\$3.10	0%	-44%	-62%	-72%	-77%	-81%	-84%	-86%	-87%	-89%
\$3.00	-3%	-52%	-68%	-76%	-81%	-84%	-86%	-88%	-89%	-90%
\$2.90	-15%	-58%	-72%	-79%	-83%	-86%	-88%	-89%	-91%	-92%
\$2.80	-25%	-62%	-75%	-81%	-85%	-87%	-89%	-91%	-92%	-92%
\$2.70	-32%	-66%	-77%	-83%	-86%	-89%	-90%	-92%	-92%	-93%
\$2.60	-39%	-69%	-80%	-85%	-88%	-90%	-91%	-92%	-93%	-94%
\$2.50	-44%	-72%	-81%	-86%	-89%	-91%	-92%	-93%	-94%	-94%
\$2.40	-48%	-74%	-83%	-87%	-90%	-91%	-93%	-93%	-94%	-95%
\$2.30	-52%	-76%	-84%	-88%	-90%	-92%	-93%	-94%	-95%	-95%
\$2.20	-55%	-77%	-85%	-89%	-91%	-92%	-94%	-94%	-95%	-95%

Table 6. R	eduction in PLC Pa	ayments for Corn d	lue to Imposition o	f \$125,000 Pa	ayment Limit.



Figure 11. Cotton Acres Receiving Full PLC Payment by Marketing Year Average Price.

Table 7: Reduction in The Tayments for Cotton due to imposition of \$125,000 Tayment Limits									. בווווונ.	
	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	13,500	15,000
\$0.36	0%	0%	0%	0%	0%	0%	0%	-10%	-20%	-28%
\$0.35	0%	0%	0%	-10%	-28%	-40%	-49%	-55%	-60%	-64%
\$0.34	0%	0%	-20%	-40%	-52%	-60%	-66%	-70%	-73%	-76%
\$0.34	0%	-10%	-40%	-55%	-64%	-70%	-74%	-78%	-80%	-82%
\$0.33	0%	-28%	-52%	-64%	-71%	-76%	-79%	-82%	-84%	-86%
\$0.32	0%	-40%	-60%	-70%	-76%	-80%	-83%	-85%	-87%	-88%
\$0.31	0%	-49%	-66%	-74%	-79%	-83%	-85%	-87%	-89%	-90%
\$0.30	-10%	-55%	-70%	-78%	-82%	-85%	-87%	-89%	-90%	-91%
\$0.30	-20%	-60%	-73%	-80%	-84%	-87%	-89%	-90%	-91%	-92%
\$0.29	-28%	-64%	-76%	-82%	-86%	-88%	-90%	-91%	-92%	-93%
\$0.28	-35%	-67%	-78%	-84%	-87%	-89%	-91%	-92%	-93%	-93%
\$0.27	-40%	-70%	-80%	-85%	-88%	-90%	-91%	-93%	-93%	-94%
\$0.27	-45%	-72%	-82%	-86%	-89%	-91%	-92%	-93%	-94%	-94%
\$0.26	-49%	-74%	-83%	-87%	-90%	-91%	-93%	-94%	-94%	-95%
\$0.25	-52%	-76%	-84%	-88%	-90%	-92%	-93%	-94%	-95%	-95%

Table 7. Reduction in PLC Payments for Cotton due to Imposition of \$125,000 Payment Limit.



**Figure 12. Corn Acres Receiving Full ARC Payment by Marketing Year Average Price** NOTE: assumes stable county yields of 180 bu/ac using a projected benchmark price for crop year 2025.

	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	13,500	15,000
\$4.38	0%	0%	0%	0%	0%	0%	0%	0%	0%	-1%
\$4.30	0%	0%	0%	-3%	-23%	-36%	-45%	-52%	-57%	-61%
\$4.23	0%	0%	-20%	-40%	-52%	-60%	-66%	-70%	-73%	-76%
\$4.16	0%	-13%	-42%	-57%	-65%	-71%	-75%	-78%	-81%	-83%
\$4.08	0%	-32%	-55%	-66%	-73%	-77%	-81%	-83%	-85%	-86%
\$4.01	0%	-44%	-63%	-72%	-78%	-81%	-84%	-86%	-88%	-89%
\$3.94	-5%	-52%	-68%	-76%	-81%	-84%	-86%	-88%	-89%	-90%
\$3.86	-17%	-59%	-72%	-79%	-83%	-86%	-88%	-90%	-91%	-92%
\$3.79	-27%	-63%	-76%	-82%	-85%	-88%	-90%	-91%	-92%	-93%
\$3.72	-34%	-67%	-78%	-84%	-87%	-89%	-91%	-92%	-93%	-93%
\$3.64	-41%	-70%	-80%	-85%	-88%	-90%	-92%	-93%	-93%	-94%
\$3.57	-46%	-73%	-82%	-86%	-89%	-91%	-92%	-93%	-94%	-95%
\$3.50	-50%	-75%	-83%	-88%	-90%	-92%	-93%	-94%	-94%	-95%
\$3.42	-54%	-77%	-85%	-88%	-91%	-92%	-93%	-94%	-95%	-95%
\$3.35	-56%	-78%	-85%	-89%	-91%	-93%	-94%	-95%	-95%	-96%

Table 8. Reduction in ARC Payments for Corn due to Imposition of \$125,000 Payment Limit.

#### Payment Limit Considerations in the Next Farm Bill

- Given other checks and balances, are payment limits even needed? Arguably, if the objective is ensuring that assistance is NOT provided to those who are not actively engaged (or at risk) in farming or to those who are high-income individuals, the United States already has tools in place to prevent those individuals from qualifying namely very robust means testing and actively engaged determinations. To that end, it's reasonable to argue that the payment limits make no sense at all, particularly if the point of the farm safety net is to make risk management tools available to producers who are not otherwise disqualified.
- Absent common-sense improvements to payment limits, the need for ad hoc assistance will continue. It seems counterintuitive to limit the assistance available via ARC or PLC only for Congress to have to step in with ad hoc assistance. If a goal of the next farm bill is to obviate the need for ad hoc assistance, then expanding payment limits to fit the reality of production in 2023 is warranted. Either the farm safety net is designed to work for all growers or pressure will remain to provide ad hoc assistance (subject to separate payment limits, as has been the case for the last several years). If policymakers want to avoid ad hoc assistance, then safety net payments need to be proportional to loss.
- Assistance in the farm safety net is already proportional to losses. Long gone are the days where farmers get money simply for being farmers. The safety net is now designed to provide assistance only in times of loss when market returns are below historic norms. As we've noted above, the payment limit significantly impacts on the efficacy of this safety net because of its regressive effect. There is a wisdom in letting payment size scale with losses.
- Payment limits should be adjusted to reflect inflation and the long-run costs of farming. In the 1970s when the \$165,000 payment limits were first introduced, a new cotton stripper or grain harvester would have cost less than \$50,000. Today, when the combined limit is \$125,000, such machines cost close to \$1 million. For family businesses committed to farming, the margins are incredibly thin considering the risks involved. In some regions, the margins are thinner and the risks are greater, meaning farms have grown larger to lower their average costs and remain competitive. While a pure inflation index is unlikely, the limits should be adjusted given this reality.
- If payment limits remain, some common-sense improvements are needed. While we think a conversation about eliminating payment limits is warranted, we are under no illusion that is politically feasible. With that said, recent disaster packages have provided a roadmap for additional common-sense improvements to payment limits in Title 1 of the next farm bill. For example, flexibility with the permanent disaster programs was highlighted in Table 4. In addition, the Wildfire and Hurricane Indemnity Program Plus (WHIP+) imposed a payment limitation of \$125,000 per person or legal entity for all

three crop years (2018, 2019 and 2020) but doubled the limit to \$250,000 for each of the crop years (with an overall limit of \$500,000 for all three crop years) if 75% of income was derived from farming, ranching, or forestry.<sup>18</sup> WHIP+ borrowed the 75% waiver concept from a provision in the 2002 Farm Bill whereby a producer was exempt from the AGI means test if more than 75% of their income came from farming, ranching, or forestry. In addition, the Coronavirus Food Assistance Program (CFAP) applied the 75% waiver to an AGI means test of \$900,000 and imposed a payment limit of \$250,000 which they allowed to expand up to \$750,000 depending on the number of individuals involved in the entity and their contribution of active personal management and active personal labor.<sup>19</sup>

 <sup>&</sup>lt;sup>18</sup> <u>https://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/FactSheets/2019/wildfire-and-hurricane-indemnity-program-plus\_whip\_august\_2020.pdf</u>
<sup>19</sup> 7 C.F.R. §9.7(e)