



The Changing Relationship between Farm and Non-Farm Economies

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"Strong agriculture is the foundation of a thriving rural America. When our farmers and ranchers succeed, rural communities prosper." **Tom Vilsack** (U.S. Secretary of Agriculture)

"Agriculture is not only the foundation of rural America, but it's the backbone of our economy. When farms thrive, small towns and businesses do too." **Earl Butz** (former U.S. Secretary of Agriculture)

"When we strengthen rural America, we strengthen America as a whole. That starts with supporting our farmers and ensuring they have the tools to succeed." **Barack Obama**

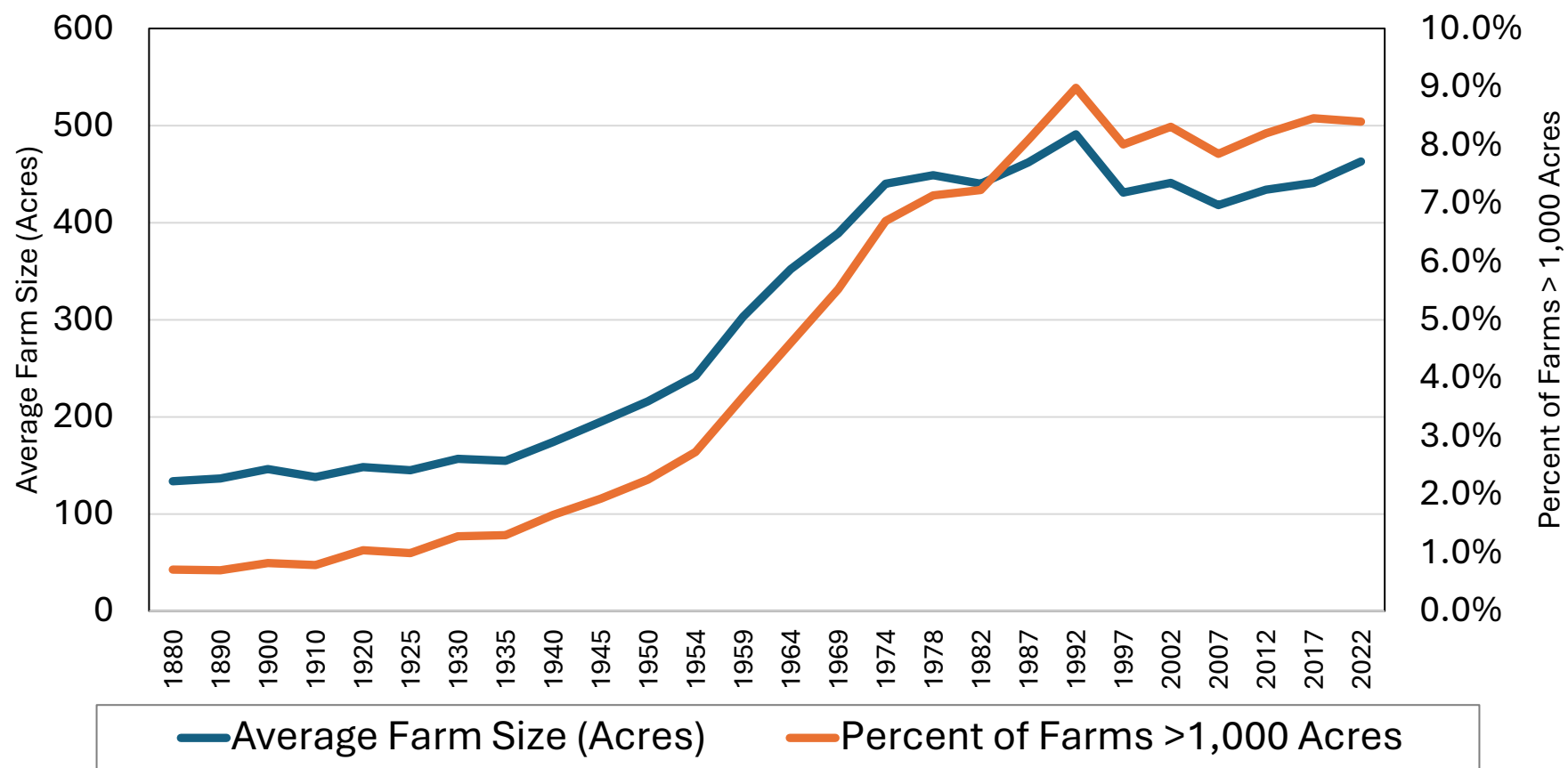
"The farmer is the central figure in a rural community. The success of the farm leads to the success of the town and the region." **John F. Kennedy**

"Rural prosperity begins with agriculture. Healthy farms create jobs, fuel innovation, and grow communities." **Sonny Perdue** (former U.S. Secretary of Agriculture)



“In America, *the big get bigger and the small go out*. I don’t think in America, for small business, we have a guaranteed income or guaranteed profitability.” **Sonny Purdue** (former U.S. Secretary of Agriculture October 2019)

Changes in Average Farm Size over Time



Source: USDA Census of Agriculture (various years)



MacDonald (2020) argues that these simple averages (previous slide) have masked persistent consolidation across agriculture.

- The share of crops from very large farms (those with at least 5,000 cropland acres) increased by 46.5% from 13,822 in 1982 to 20,244 in 2022.
- Consider the case of dairy farming: in 1982, 0.4% of dairy farms (1,052) had 500 or more milking cows, yet by 2022 that share had increased to 11.4% (3,451) an increase of 228%, and more importantly, those larger dairies now accounted for 56.4% of milk sales. The very largest dairies, those with more than 2,500 cows, accounted for 44.7% of total milk sales.



"As farms have gotten bigger, the number of farmers has shrunk. What we've gained in efficiency, we've lost in community." **Michael Pollan**

"Family farmers are the backbone of our nation, but they are being pushed out by corporate interests and farm consolidation." **Willie Nelson**

"Consolidation in agriculture threatens the diversity and resilience of our food system and weakens rural economies." **Tom Vilsack** (U.S. Secretary of Agriculture)

"The concentration of power in the hands of a few agribusiness giants has hollowed out rural America and left small farmers struggling to survive." **Elizabeth Warren** (U.S. Senator)

"A country that allows its family farms to be swallowed by corporate giants is a country that loses its connection to the land and the people who work it." **Barbara Kingsolver** (Pulitzer Prize-winning American novelist)



Within the academic literature, this notion that the consolidation of farms into large “corporate farms” is eroding rural communities is often referred to as the “*Goldschmidt Hypothesis*” (e.g., Heffernan 1972; Heady and Sonka 1974; Rodefeld 1974; Martinson et al. 1976; Fujimoto 1977; Small Farm Viability Project 1977)

"The consolidation of farmland into large-scale industrial operations disrupts the social fabric of rural communities, eroding their economic vitality and cultural resilience.“ **Walter Goldschmidt**

In the 1940s, Goldschmidt conducted research comparing two agricultural communities in California's San Joaquin Valley:

1. **Dinuba** – characterized by small, family-owned farms.
2. **Arvin** – dominated by large-scale, industrialized farms.

Goldschmidt observed that **Dinuba**, with its small-scale farms, exhibited stronger social, economic, and civic well-being compared to **Arvin**, where large farms led to greater economic inequality, reduced community participation, and a lower quality of life.



Green (1985), stated that in *Missouri* he could **not** find a significant effect of farm size on social and economic indicators of quality of life.

Skees and Swanson (1988) studied all the *southern U.S. states* and could **not** confirm the broader interpretation of the Goldschmidt hypothesis.

Gilles and Dalecki (1988), who focused on the *central Great Plains* region, concluded that the number of hired farm workers, not the number of large farms, was negatively associated with rural communities' well-being, **supporting** the Goldschmidt hypothesis.

MacCannell (1988) concluded that large-scale farming reduced community well-being **supporting** the Goldschmidt Hypothesis.

Barnes and Blevin (1992) in a study of U.S. *nonmetropolitan counties*, also could **not** find evidence supporting the Goldschmidt hypothesis.



Crowley and Roscigno (2004) used data from the *North Central* United States to study the effect of farm sector concentration on poverty and economic inequality and found evidence generally **supportive** of the Goldschmidt hypothesis.

Harrison and Getz (2015), in their case studies of *California* and *Wisconsin*, found that large farms had better job quality for employees than small farms, **challenging** the Goldschmidt hypothesis.

Bailey, Gopaul, Thomson and Gunnoe (2020) In a study of the ownership structure of *timberland in rural Alabama*, found that high levels of absentee ownership resulted in poor community well-being, thus **supporting** the Goldschmidt hypothesis.

Park and Deller (2021) conclude that in the end our results suggest that the logical conclusion of what has become known as the Goldschmidt hypothesis is **not** supported by the data.



Why is the logic of the Goldschmidt hypothesis so often not supported by the data?

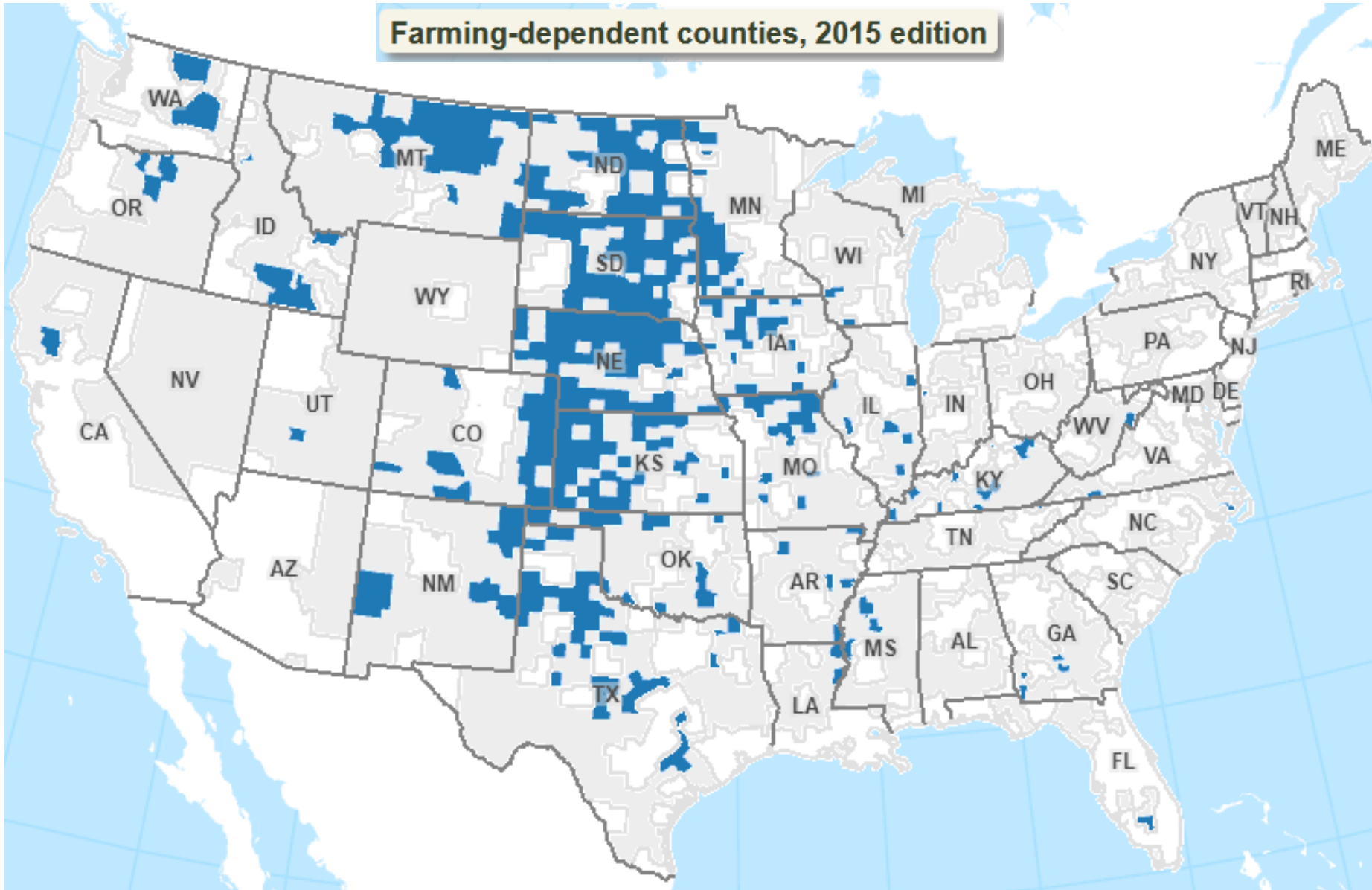
Return to the underlying logic expressed by statements such as:

"Strong agriculture is the foundation of a thriving rural America. When our farmers and ranchers succeed, rural communities prosper." **Tom Vilsack** (U.S. Secretary of Agriculture)

For most of rural America this statement is simply not true: unlike 150 years ago, the economic drivers of rural American has moved beyond agriculture.



Farming-dependent counties, 2015 edition

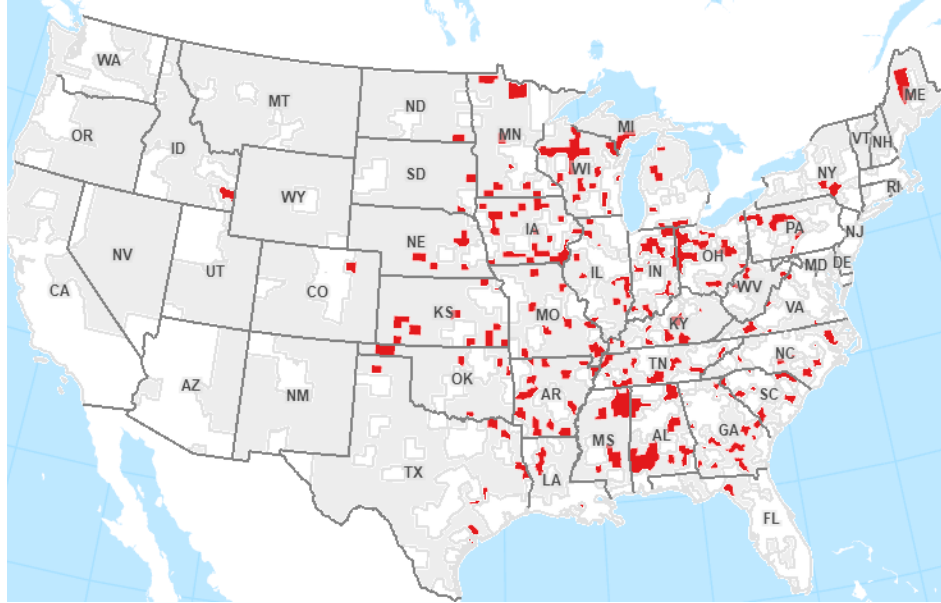


22.4% of all Nonmetro counties are classified as farming dependent.

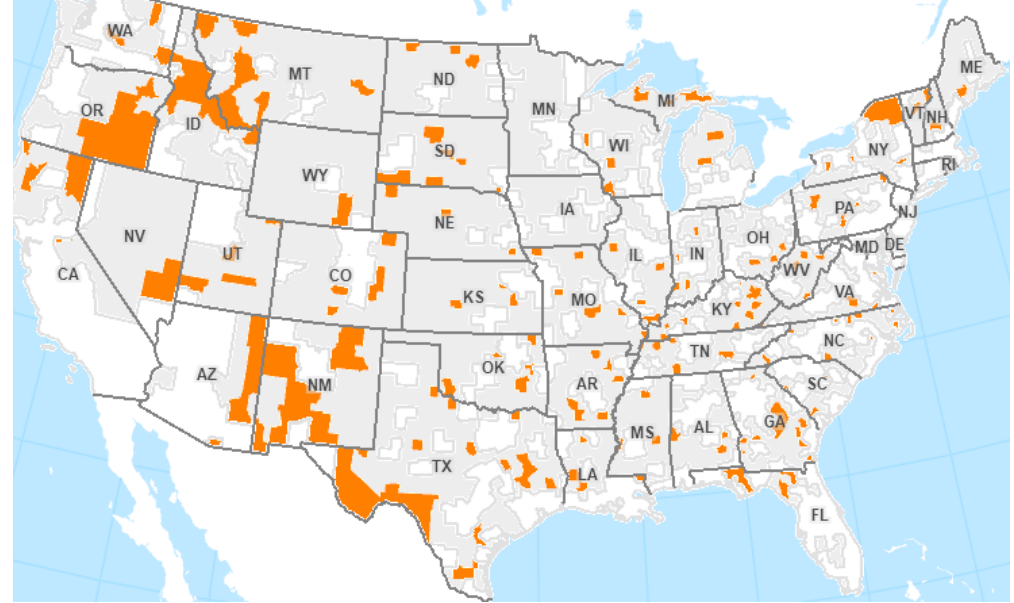
At least 25% of the county's employment and/or total income is in farm-related industries



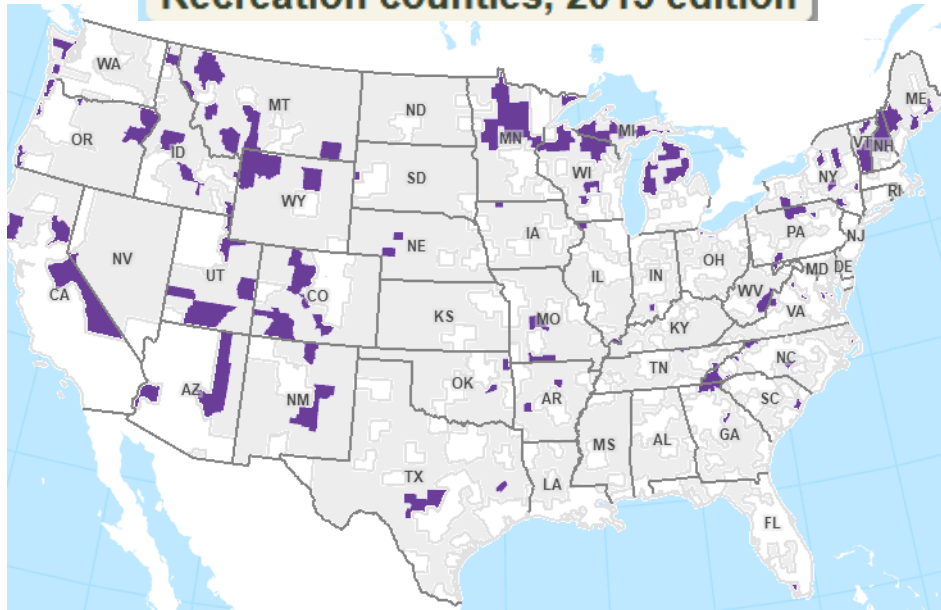
Manufacturing-dependent counties, 2015 edition



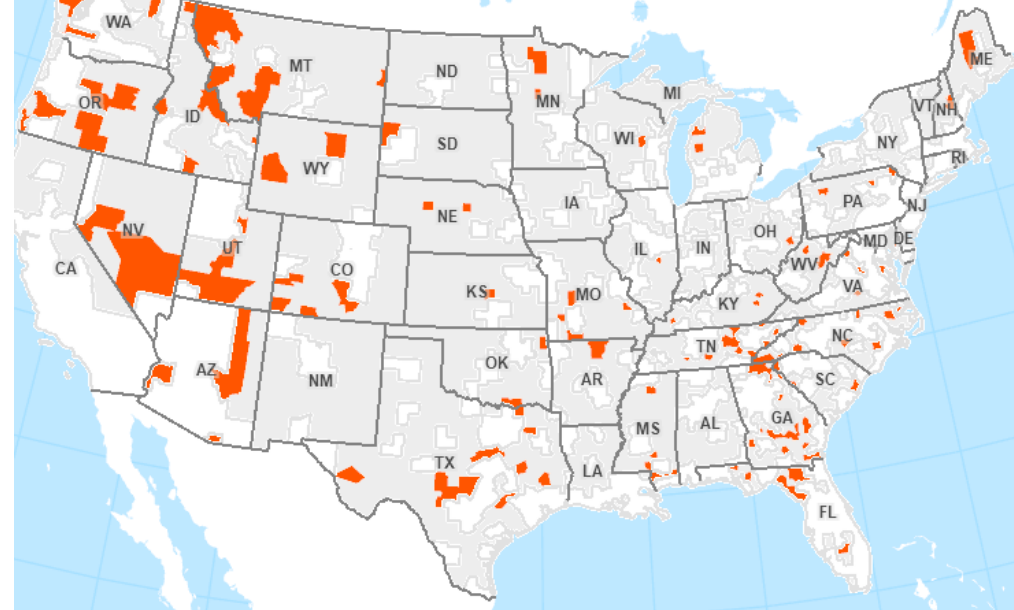
Federal/State government-dependent counties, 2015 edition



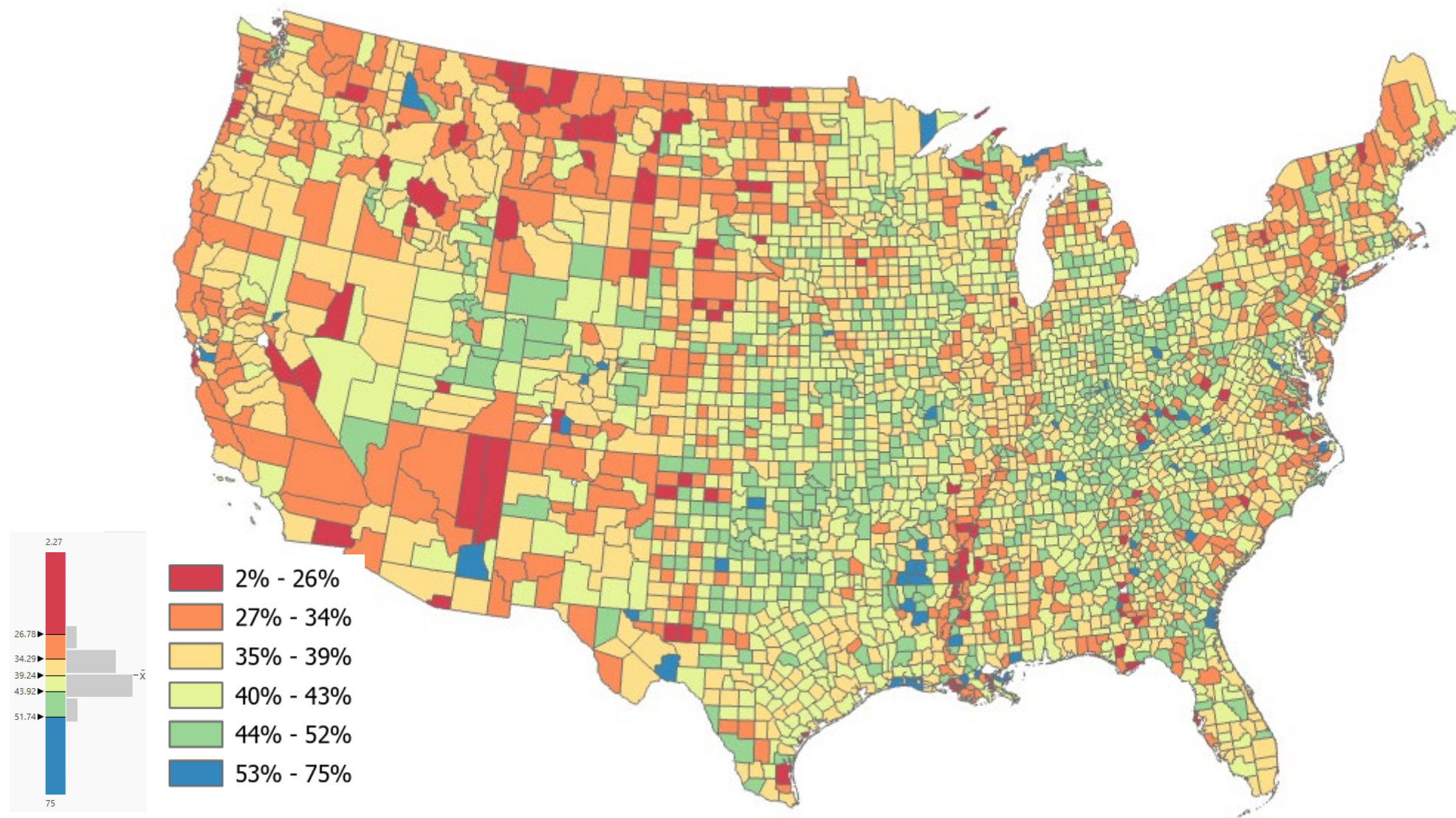
Recreation counties, 2015 edition



Retirement destination counties, 2015 edition



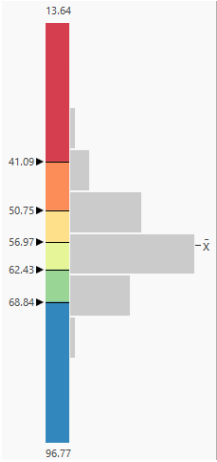
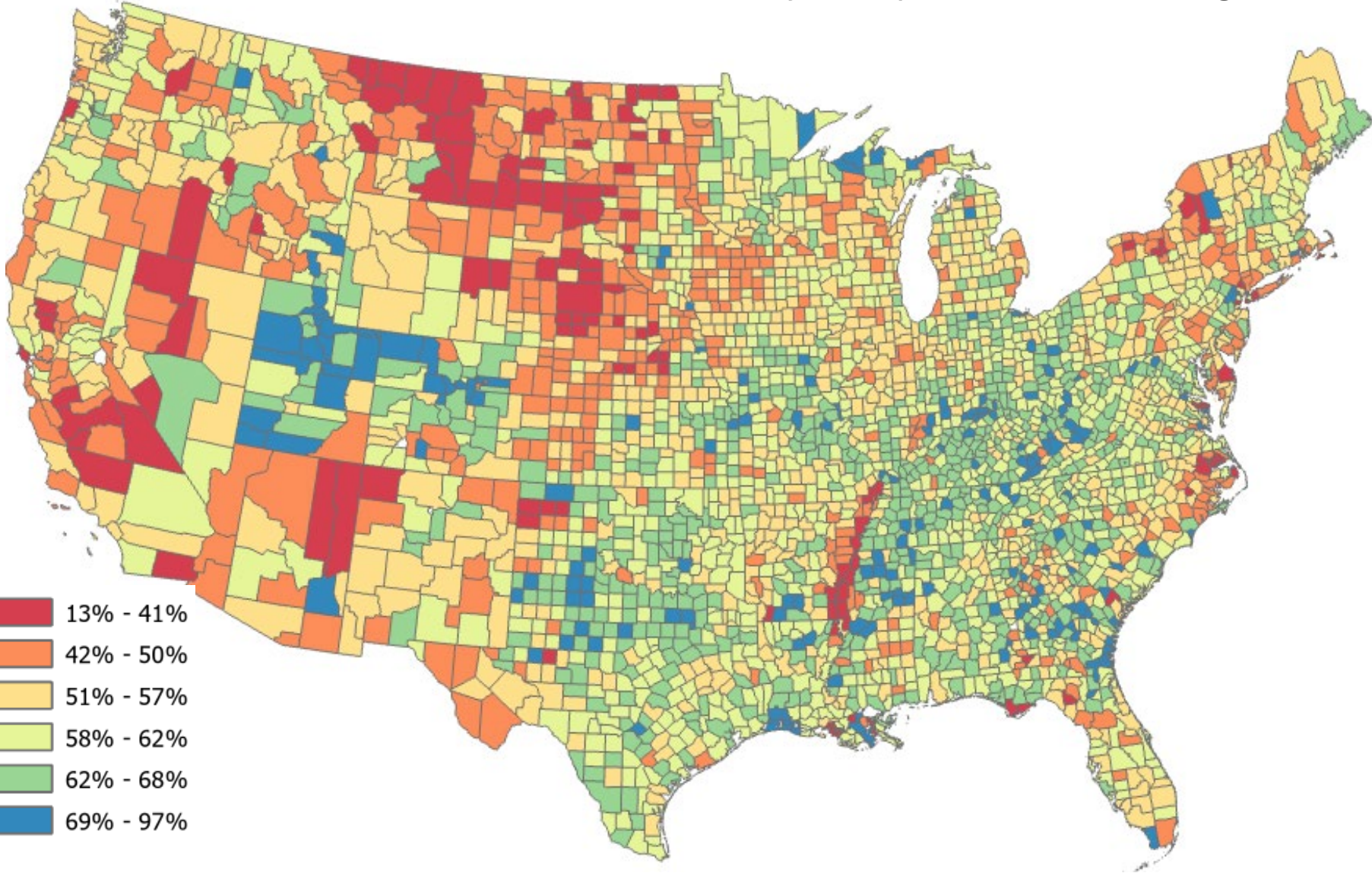
Percent of Producers Who Worked 200 or More Days Off Farm



Source: 2022 Census of Agriculture



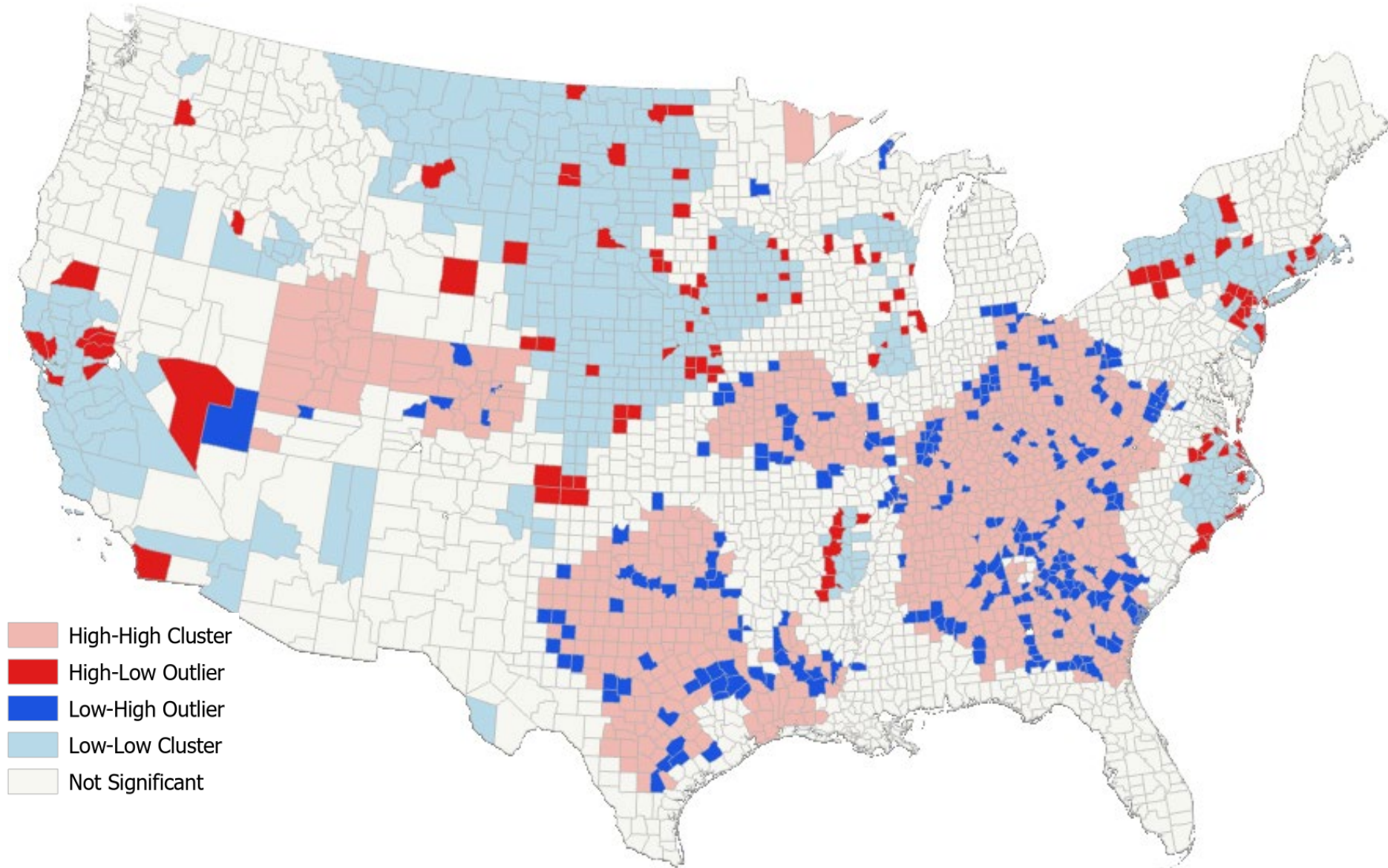
Percent of Producers Whose Primary Occupation is Not Farming



Source: 2022 Census of Agriculture



Percent of Producers Whose Primary Occupation is Not Farming



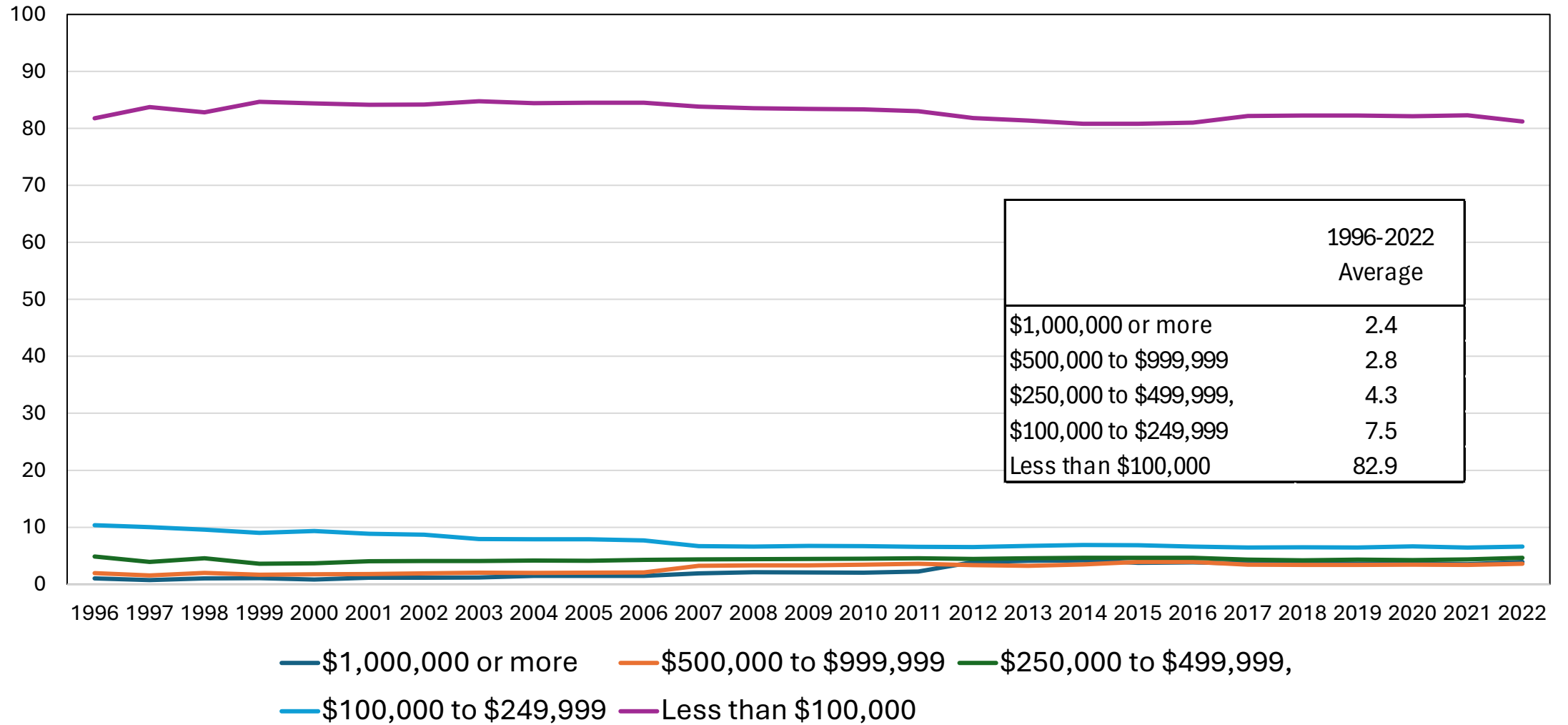
The Census of Agriculture is an excellent source of information about the farm enterprise and the farmers but provides no information about the farm family or household.

The USDA Agricultural Resource Management Survey (**ARMS**), a comprehensive survey, is the primary source of information on the financial well-being, production practices, resource use, and economic conditions of U.S. farm **households** and operations.

Uses a **stratified sample** to ensure farms of all types are represented from the 15 largest agriculture producing states. Surveys around **30,000 farms annually**. Data from 1996 to 2022.



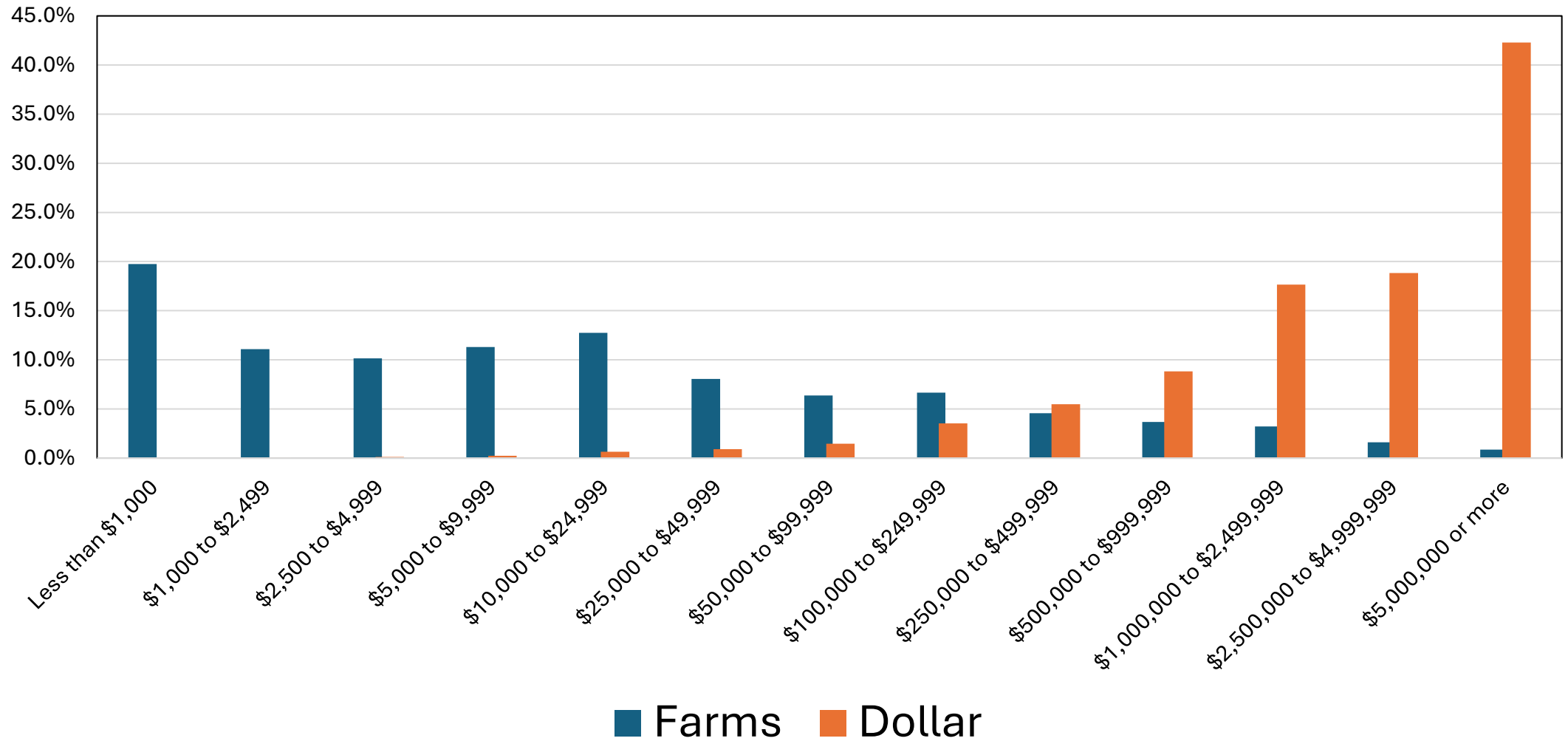
Distribution of ARMS Farms by Sales Categories



Source: USDA Agricultural Resource Management Survey



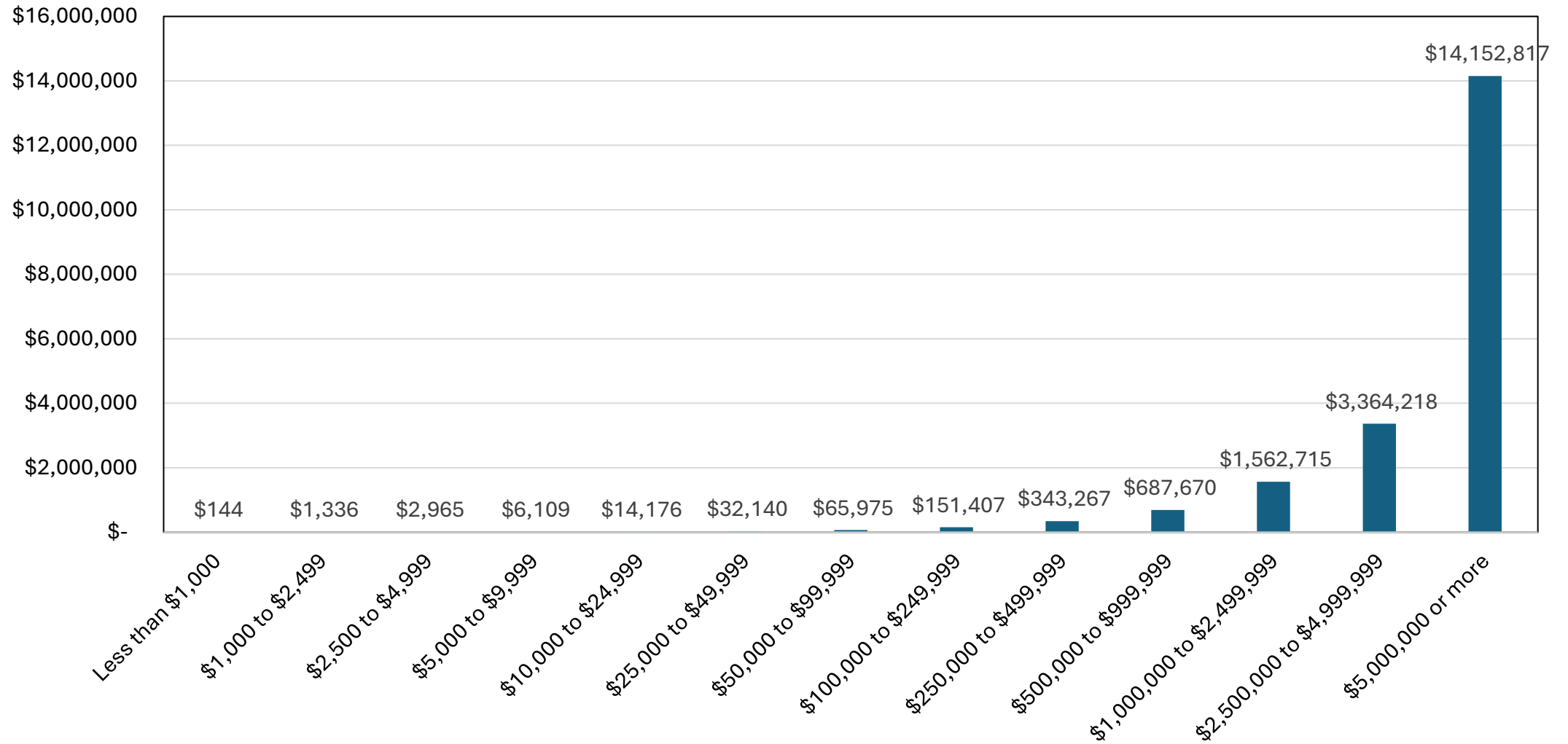
Distribution of Farm Revenues from Marketing by Farm Size



Source: 2022 Census of Agriculture



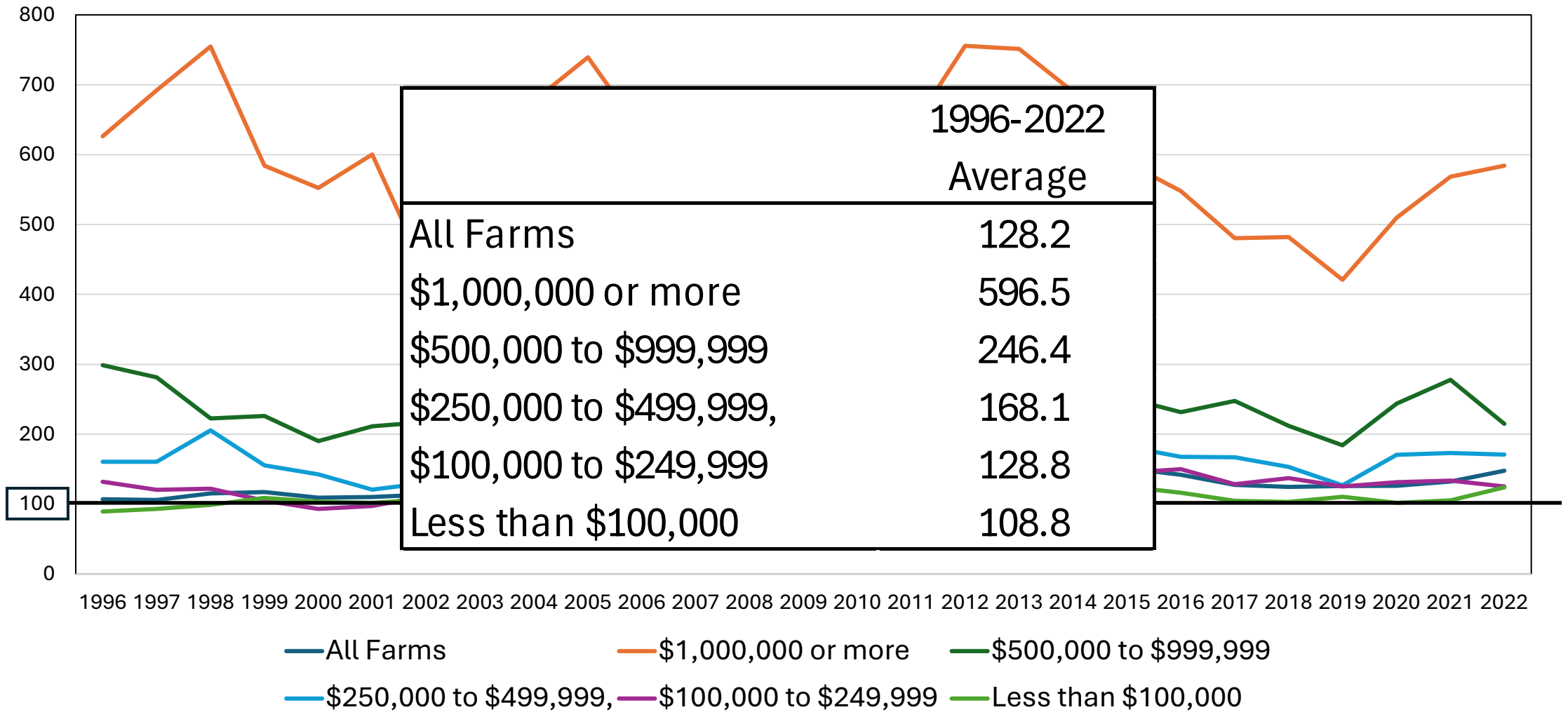
Average Farm Revenues from Marketing by Farm Size



Source: 2022 Census of Agriculture



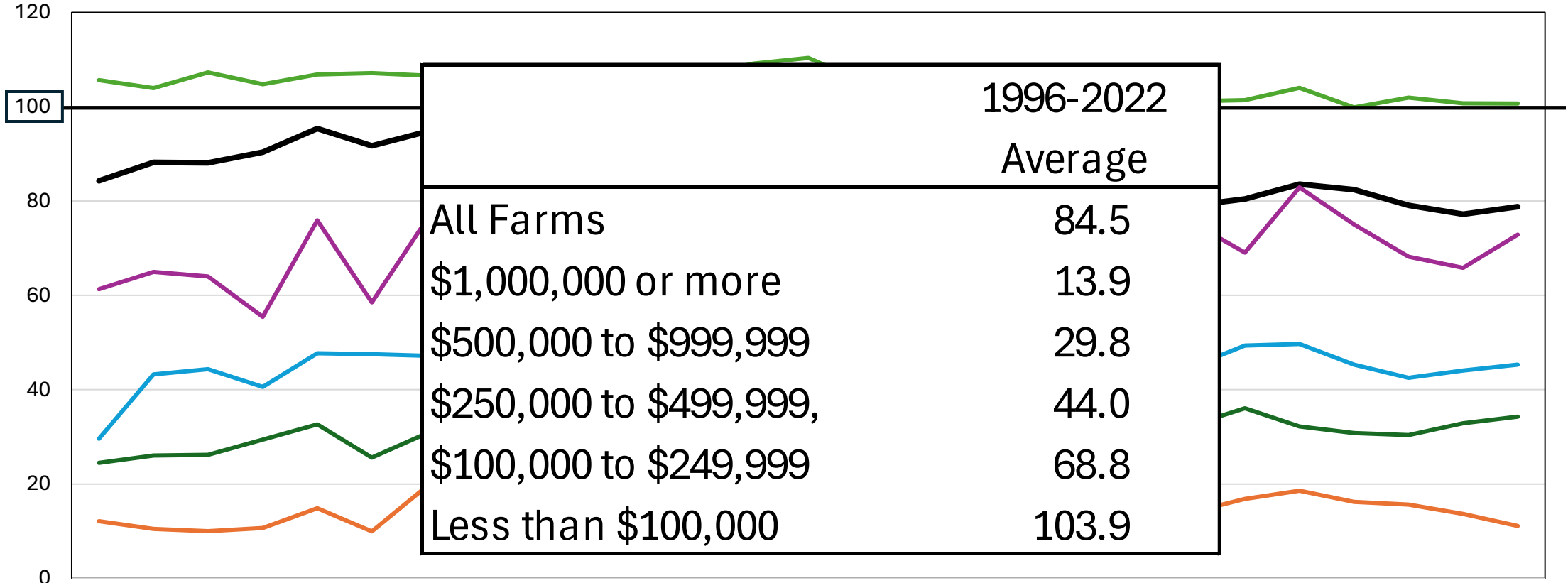
Farm Household Income as a Percent of U.S. Average Household Income



Source: USDA Agricultural Resource Management Survey



Percent of Farm Household Income from Off-Farm Sources



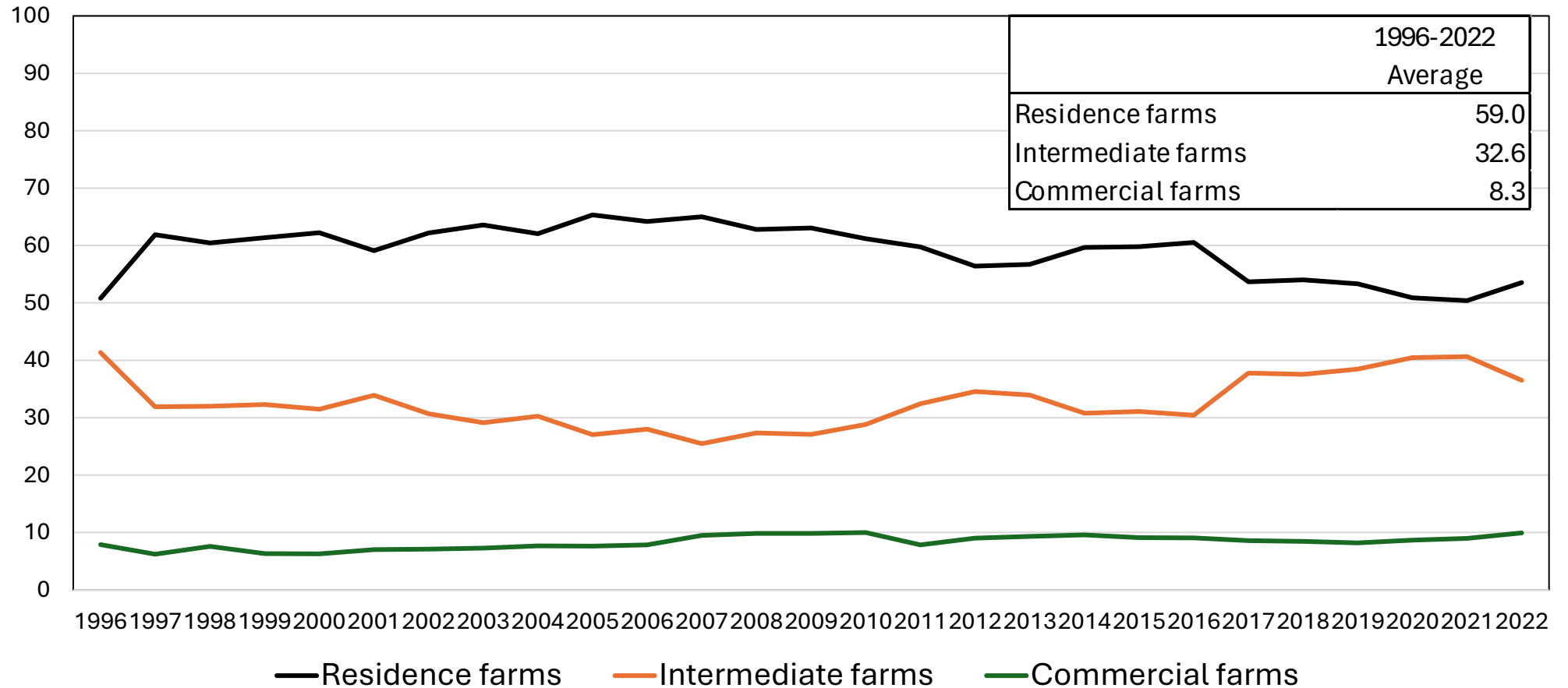
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

— All Farms
 — \$1,000,000 or more
 — \$500,000 to \$999,999
— \$250,000 to \$499,999,
 — \$100,000 to \$249,999
 — Less than \$100,000

Source: USDA Agricultural Resource Management Survey



Distribution of Farms by Type

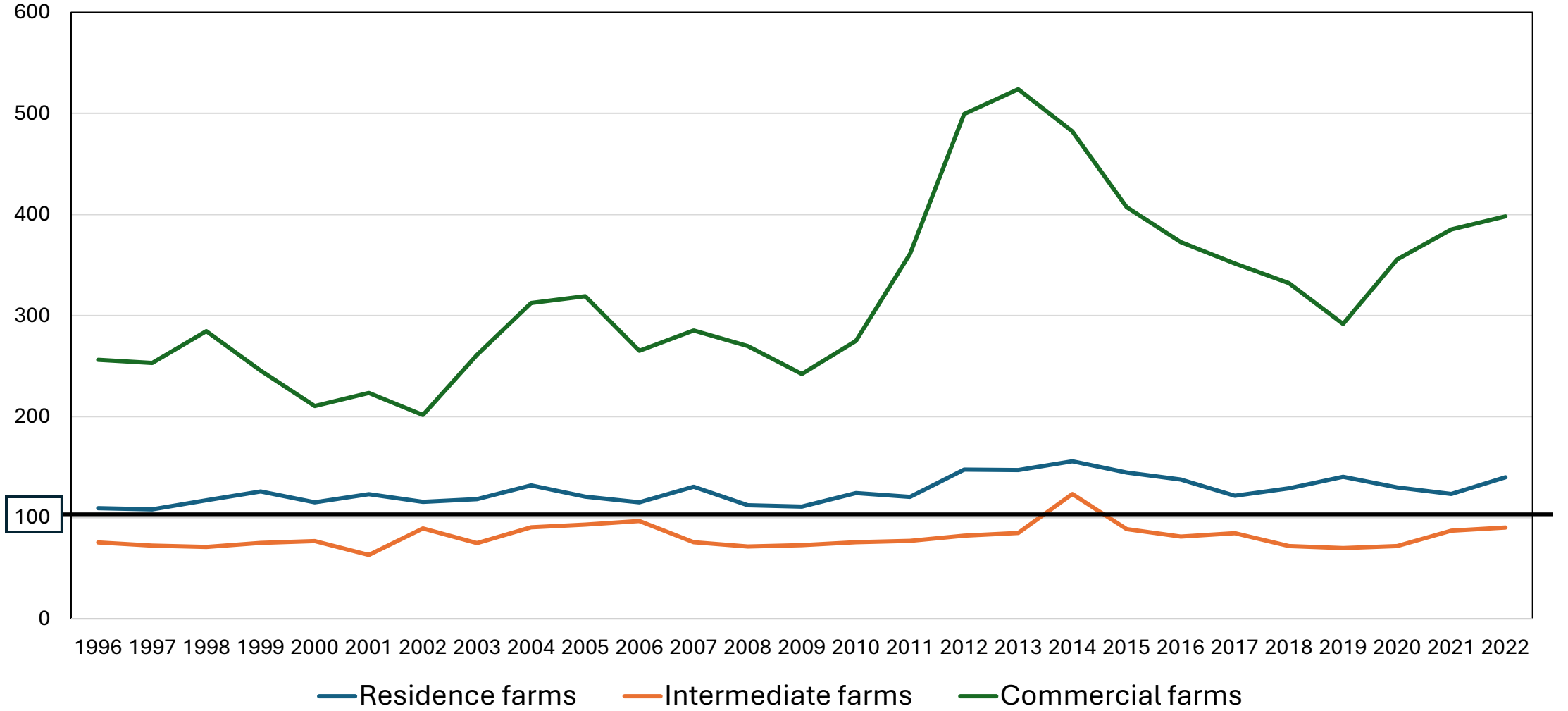


Source: USDA Agricultural Resource Management Survey

- Residence farms:** Sales less than \$350,000 gross cash income principal operator is retired or non-farm primary occupation
- Intermediate farms:** Sales less than \$350,000 gross cash income principal operator occupation is farming
- Commercial farms:** Sales of \$350,000 or more gross cash income as well as nonfamily farms



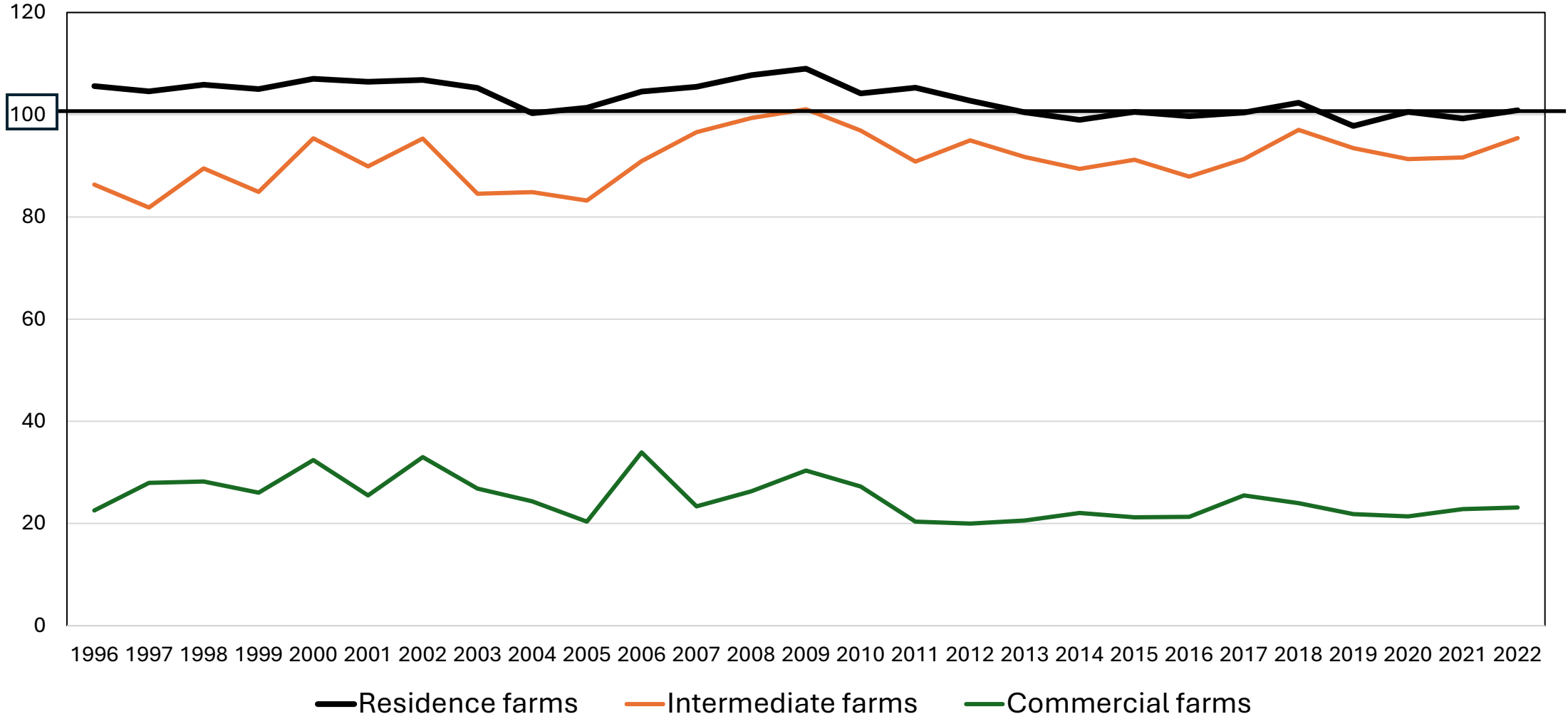
Percent of U.S. Average Household Income



Source: USDA Agricultural Resource Management Survey



Percent of Farm Household Income from Off-Farm Sources



Source: USDA Agricultural Resource Management Survey



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The policy implication: to promote rural economic vitality focus on farming.

But, the vast majority of farms are dependent on off-farm income to maintain the farm household.

The policy implication: to promote the economic vitality of farming start by ensuring the financial vitality of the farm household which means promoting off-farm employment opportunities.

Butz, Perdue and Vilsack have the policy implications completely backwards.



Thank you

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The ARMS data: <https://my.data.ers.usda.gov/arms/data-analysis>

