

**Regionalizing the Food Dollar: Exploring Distributions across Sectors and Places**

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- Farmer’s share of the US Food Dollar averaged 11.6% in 2020, but that varies greatly across states, with Colorado’s farm share being just over 12%.
- Food service, food processing and retail services capture the highest share of the US food dollar, and those numbers vary by location as well, but highlight the role agricultural production can play in broader agribusiness activity.
- For an additional \$1 of food demand in Colorado, it contributes another \$0.72 in economic value to the surrounding community.

**Overview**

Tracking food expenditures through the supply chain has become an important part of understanding food supply chains and tracking distributional impacts of food expenditures. The US Department of Agriculture (USDA) shares that 11.6 cents for each dollar spent on the final consumption of food went back to the farm/agribusiness with the other 88.4% going to other sectors across the food supply chain including food processing (18.6%), transportation (3.5%) and retail trade (13.6%) (<https://www.ers.usda.gov/publications/pub-details?pubid=44827>). While the national food dollar series has been valuable in tracking changes over time in the distribution of the food dollar, the focus of this report is how such distributions vary across places exploring several states, as well as one Colorado county (to illustrate how one might explore the dollar series in smaller locales).

**Food Dollar Distributions across Agribusinesses**

The food dollar industry group analysis decomposes value added activities, essentially measuring the marginal contribution of each agribusiness sector. Table 1 shows food industry sector shares are similar across places. As one example, food processing ranges from a low of 19.86% in Idaho to a high of 25.15% in Larimer County, Colorado.

*Table 1 - Food dollar industry group breakdown by region in 2020*

Industry Group	Idaho	Washington	New York	Colorado	Larimer County, CO
Farm	6.92%	6.77%	7.83%	6.55%	6.78%
Mining, construction and utilities	2.49%	2.98%	2.31%	2.61%	2.61%
Food Proc	19.86%	20.85%	23.74%	20.73%	25.15%
Packaging	1.44%	1.36%	1.17%	1.67%	1.36%
Energy Manufacturing	0.63%	0.29%	0.49%	0.46%	0.44%
Other Manufacturing	4.84%	2.87%	2.73%	5.05%	3.84%
Wholesale	7.28%	6.91%	6.08%	6.78%	6.06%
Retail	10.55%	10.67%	10.37%	11.00%	10.43%
Transport	3.62%	3.42%	3.00%	3.43%	3.02%
Services	19.80%	18.57%	16.43%	19.11%	18.05%
Food Service	20.82%	23.68%	24.28%	20.79%	20.76%
Other	1.74%	1.62%	1.57%	1.81%	1.52%

### ***Comparing Food Dollar Distributions Across Places***

A key highlight of the national food dollar series is the estimate of the farm share, defined as the percentage that ends up going back to farms. Nationally, the average farm share was estimated to be 14.20%, a stable share from 2016 through 2022, but lower than the 16.6% reported from 1993 through 2022. Out of the five geographies that are included as example regions in this analysis, the state of Washington had the highest farm share at 12.90% followed closely by Idaho with a farm share of 12.75%. Both states produce a large amount of fruits and vegetables (including potatoes) which tend to be less processed with less agents to capture value from producer to consumer, allowing for more of the food dollar to be kept on farm. Colorado had a farm share of 12.11%, which is lower than Idaho or Washington, but higher than one of its constituent counties, Larimer County, Colorado, which had a farm share of 11.09%. However, both of these were higher than New York state which had a farm share of 10.19%.

*Table 2- Farm share of the food dollar by geography in 2020*

<b>Geography</b>	<b>2020 Farm Share</b>
Idaho	12.75%
Washington	12.90%
New York	10.19%
Colorado	12.11%
Larimer County, Colorado	11.09%

It is interesting to note that lower farm shares are associated with a higher level of purchases at food service establishments (e.g. restaurants) relative to food purchased for at home consumption. This would mean that New York, the region with the lowest farm share, is expected to have a higher

overall proportion of food purchased at restaurants relative to food prepared at home than the states of Washington or Idaho.

### ***The Food Dollar in the Context of Market and Policy Dynamics***

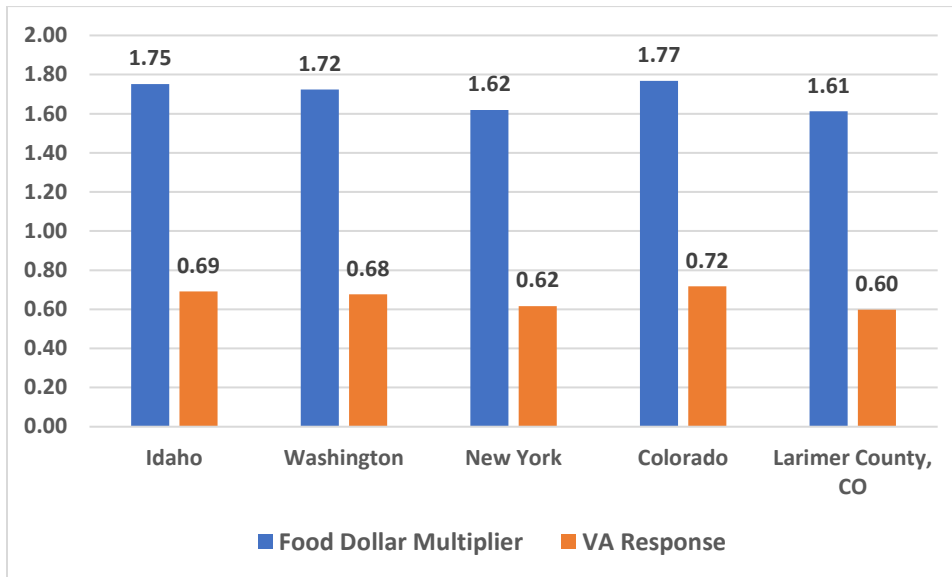
In the world of regional economics, there is much attention paid to the food dollar multiplier, a number that provides additional perspective on the internal density of food value chains (locally connected agribusinesses) within each region. The multipliers for the states considered here are shared in Figure 1 and it should be noted that regions with higher multipliers demonstrate greater localization of economic activity, indicating a more self-reliant food system. Conversely, regions with lower multipliers may rely more heavily on external inputs, posing challenges in terms of resilience and sustainability.

As another measure, a value-added response coefficient indicates the amount of value added that is produced across the regional economy from a dollar's worth of final demand of food (Figure 1). While telling a similar story as the food dollar multiplier, the difference between the largest response coefficient (Colorado) and the smallest response coefficient (Larimer County, Colorado) is proportionally higher than the gap in the multiplier. This means that not only is Larimer County's food value chain comprised of more leakages and imported inputs, the food value chain is also more likely to have less value added associated along the food supply chain.

For example, it would be expected that Larimer County would have less value-added steps from production to final demand as compared to the other regions. By contrast, the state of Colorado would be expected to do more value-added processing of their agricultural and food products

before a good was sold to final demand. Thus, this metric may signal to Larimer County that it could be economically beneficial to make investments to increase that value added response to their local economy to leverage the agricultural production occurring (and consumer dollars being spent on food in the region).

Figure 1: Food Industry Contributions and Value Added Responses



In short, we show here that we can extend the food dollar framework to incorporate spatial analysis, offering insights into the geographic distribution of food expenditures. By examining farm shares, industry group breakdowns, and food dollar multipliers across different regions, this study enhances our understanding of regional food value chains and their economic implications.

What does this mean in the current market and policy environment? There are a number of initiatives to incentivize producers to add value to their crops (USDA Value Added grants), for states to promote purchases of state produced goods (Grown in Idaho, Colorado Proud) or for regional food systems to become better connected (the USDA Food Business Centers). Inherently, each of those programs is seeking to increase the share of dollars being captured by farms, food multiplier and/or VA Response of their states and communities (in the case of Larimer County). What is not clear is what the trade-off is between these economic development goals and the potential loss in efficiency of national- or global-food supply chains.