

January 12, 2026

# The Economic Contribution of the **Dairy Industry in Virginia**



UNIVERSITY  
of VIRGINIA

Weldon Cooper Center  
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# **The Economic Contribution of the Dairy Industry in Virginia**

Prepared for the Virginia State Dairymen's Association

January 12, 2026

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*Center for Economic & Policy Studies*

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# Introduction

Virginia's dairy industry plays an important role in the Commonwealth's economy. The industry includes not only dairy cattle farming and milk production but also a closely connected network of milk processing sectors such as fluid milk, butter, cheese, ice cream, and dried or condensed milk product manufacturing. In 2024, Virginia's dairy industry directly employed an estimated 4,637 workers and accounted for about \$4.33 billion in total industry output, \$1.12 billion in value added, and \$297 million in labor income. When the multiplier effects of inter-industry linkages and household spending are included, the total economic contribution of the dairy industry to Virginia's economy is estimated at 12,299 jobs, \$5.99 billion in total output, \$2.06 billion in value added, and \$828 million in labor income in 2024.

This report examines in detail the characteristics of Virginia's dairy industry and the contributions that the industry makes to the state economy. The report is divided into three main sections. The first section provides an overview of Virginia's dairy industry, including production and processing segments. The second section describes the methodology and data used to estimate economic impacts. The third section presents the results of the economic impact analysis, both in aggregate and broken down by industry components.



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## Virginia's Dairy Industry

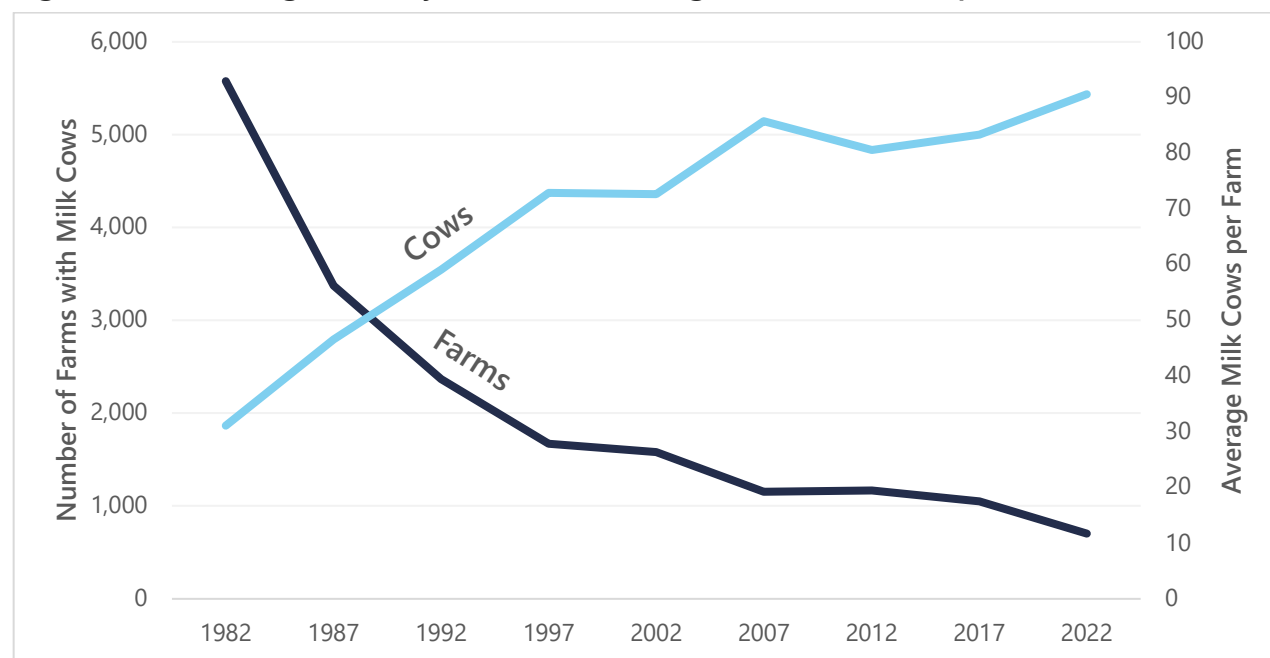
Milk is one of Virginia's top agricultural products although its relative ranking has shifted in recent years. In 2024, milk was the fourth largest commodity in farm cash receipts with about \$363 million in sales. Broilers (chicken for meat) was the largest commodity, followed by cattle and calves, and then miscellaneous crops (USDA, ERS 2025). By comparison, in 2014 (a decade earlier), milk ranked third with \$478 million in cash receipts. Virginia's dairy sector is a mid-sized player nationally, accounting for a modest share of U.S. milk output. Dairy farming operations can be found throughout the Commonwealth, but they tend to be concentrated in the Shenandoah Valley and Southwest Virginia regions where pastureland and forage conditions are favorable for cattle (Rephann 2013). The leading dairy-producing county is Rockingham County, which, with approximately 21,000 milk cows, accounts for nearly one-third of Virginia's total milk cow inventory (**Table 1**). Other major dairy counties include Franklin County (7,500 milk cows), Pittsylvania County (6,600), and Augusta County (6,300), each of which maintains more than 5,000 head. The top four producing counties collectively account for over 62% of the state's milk cows, reflecting a strong geographical concentration of dairy farming activity.

**Table 1. Estimated Milk Cows by Virginia Locality, 2025**

LOCALITY	NUMBER OF MILK COWS (THOUSANDS)
Rockingham County	21
Franklin County	7.5
Pittsylvania County	6.6
Augusta County	6.3
Fauquier County	1.9
Amelia County	1.9
Montgomery County	1.3
Shenandoah County	1.3
Other counties	18.2
<b>Total in Virginia</b>	<b>66</b>

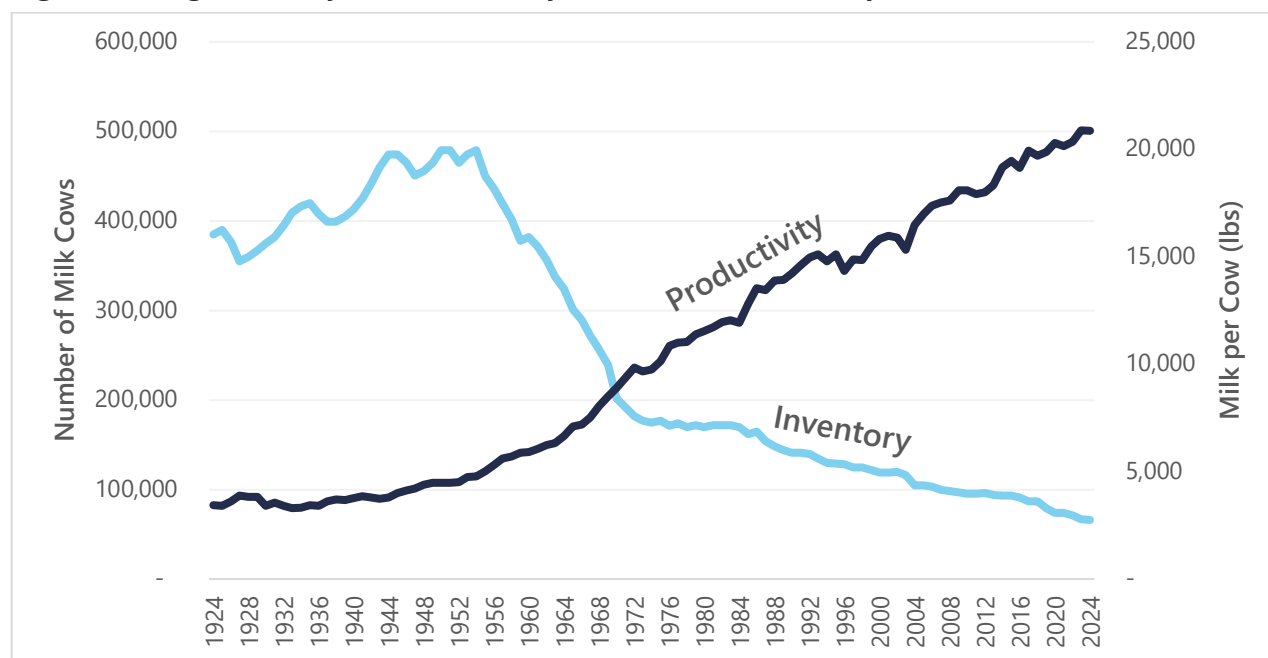
*Source: U.S. Department of Agriculture, National Agricultural Statistics Service*

Like the rest of the United States, Virginia's dairy farm sector has undergone profound structural change in recent decades. Recent USDA Economic Research Service (ERS) research indicates a continuing shift toward fewer but larger dairy operations nationally, with consolidation driven, in part, by persistent cost advantages for larger farms (MacDonald, Law, and Mosheim 2020). More recent ERS analysis using USDA's Agricultural Resource Management Survey (ARMS) similarly finds that, over the past two decades, changes in U.S. dairy farm structure have been closely linked to differences in production costs and technology adoption by farm size and region (Gillespie, Njuki, and Terán 2024). Virginia mirrors these broader trends: the number of farms raising dairy cattle has steadily declined even as the average herd size on remaining farms has grown markedly. Over the last 30–40 years, the average milk cow herd per farm in Virginia has more than doubled, while the total number of dairy farms has fallen sharply (see **Figure 1**). As a result of this consolidation, the statewide milk cow inventory is now a fraction of its mid-20th-century level. Virginia's milk cow inventory in 2024 was about 66,000 head (**Table 1**), roughly half of what it was in the early 1970s.

**Figure 1. No. of Virginia Dairy Farms and Average Milk Cow Herd per Farm, 1982-2022**

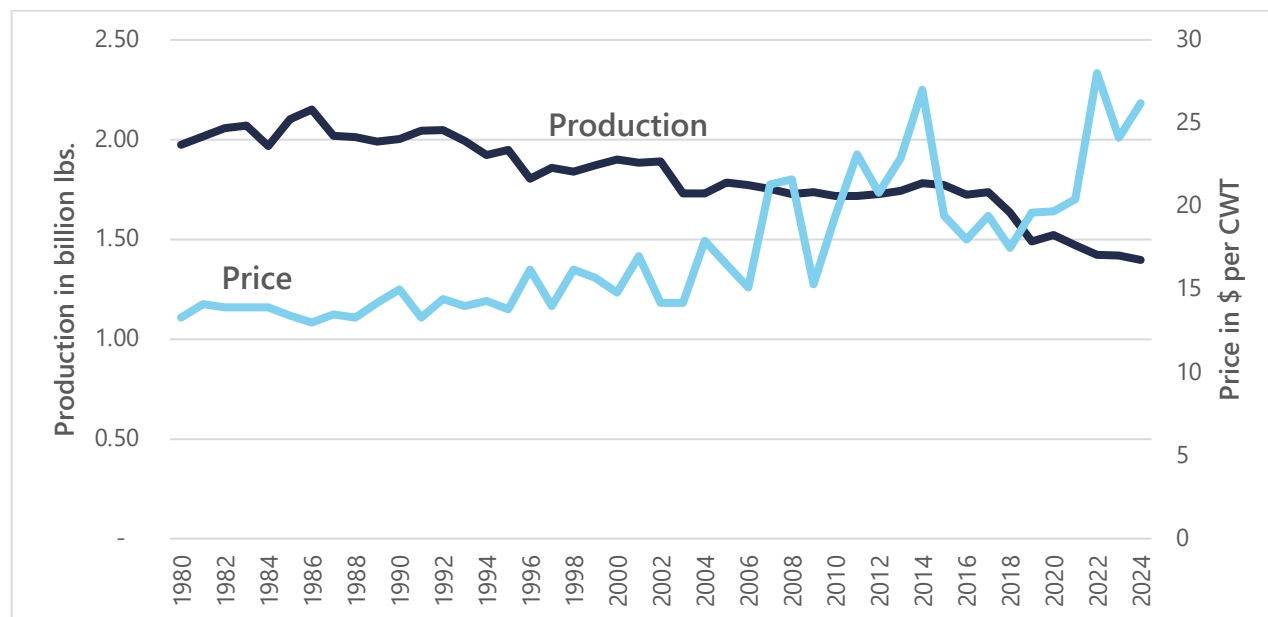
Source: U.S. Department of Agriculture, National Agricultural Statistics Service, Census of Agriculture

Improved farm efficiencies, including economies of scale, advances in cattle genetics, better herd health and nutrition, and greater use of technology and capital, have led to continually rising milk productivity per cow. The average dairy cow in Virginia now produces over twice as much milk annually as a cow did in the 1970s (**Figure 2**). This gain in productivity has largely offset the decline in herd numbers, so that total milk production in Virginia has seen relatively little long-term change. Annual milk production in Virginia has held relatively steady at around 1.5 to 2 billion pounds for the past few decades, despite year-to-year fluctuations.

**Figure 2. Virginia Dairy Cow Inventory and Milk Productivity, 1924-2024**

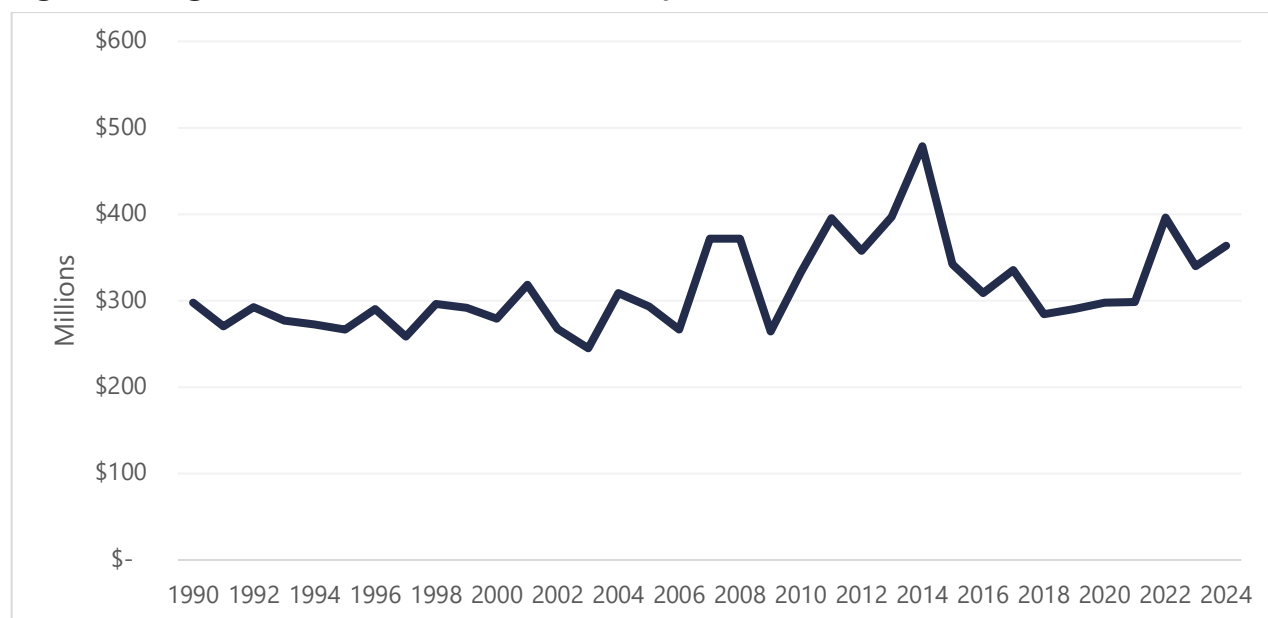
Source: U.S. Department of Agriculture, National Agricultural Statistics Service

**Figure 3** illustrates the trend in Virginia's total milk production alongside the average milk price received by farmers. The milk price is shown in dollars per hundredweight ( \$/cwt ), where one hundredweight equals 100 pounds of milk, which is the standard unit used to report farm-level milk prices in USDA data. Milk output in the state has plateaued in recent years between roughly 1.6 and 1.8 billion pounds per year. Meanwhile, milk prices have experienced significant swings due to global and national dairy market cycles. For instance, farmers saw high milk prices around 2014, followed by a downturn in 2015–2016; prices rose again to new highs in 2019, then dipped sharply in 2020, and have rebounded intermittently through 2024. These price fluctuations, combined with stable production volumes, have translated into somewhat volatile farm revenues from milk.

**Figure 3. Virginia Milk Production and All Milk Price, 1980-2024**

Source: U.S. Department of Agriculture, National Agricultural Statistics Service

As shown in **Figure 4**, cash receipts from Virginia milk sales peaked in 2014, declined in the mid-2010s, and have varied year to year since. In 2024, cash receipts from milk production were about \$363 million, lower than the 2014 peak, reflecting both slightly reduced milk prices and a relatively lower production output.

**Figure 4. Virginia Milk Production Cash Receipts, 1990-2024**

Source: U.S. Department of Agriculture, National Agricultural Statistics Service



Virginia's dairy processing sector, which is made up of firms that transform raw milk into consumer products and dairy ingredients, remains a central and increasingly important part of the Commonwealth's dairy industry. Virginia processors generally rely on milk sourced from within Virginia (or nearby) since raw milk is bulky and thus difficult to transport. It must also be handled quickly to maintain quality before it perishes, making long-distance shipments less practical. Consistent with our prior 2015 Virginia dairy industry study, this report defines the "dairy processing" segment as the set of manufacturing industries most directly tied to in-state milk production: Fluid Milk Manufacturing (NAICS 311511); Creamery Butter Manufacturing (NAICS 311512); Cheese Manufacturing (NAICS 311513); Dry, Condensed, and Evaporated Dairy Product Manufacturing (NAICS 311514); and Ice Cream and Frozen Dessert Manufacturing (NAICS 311520).

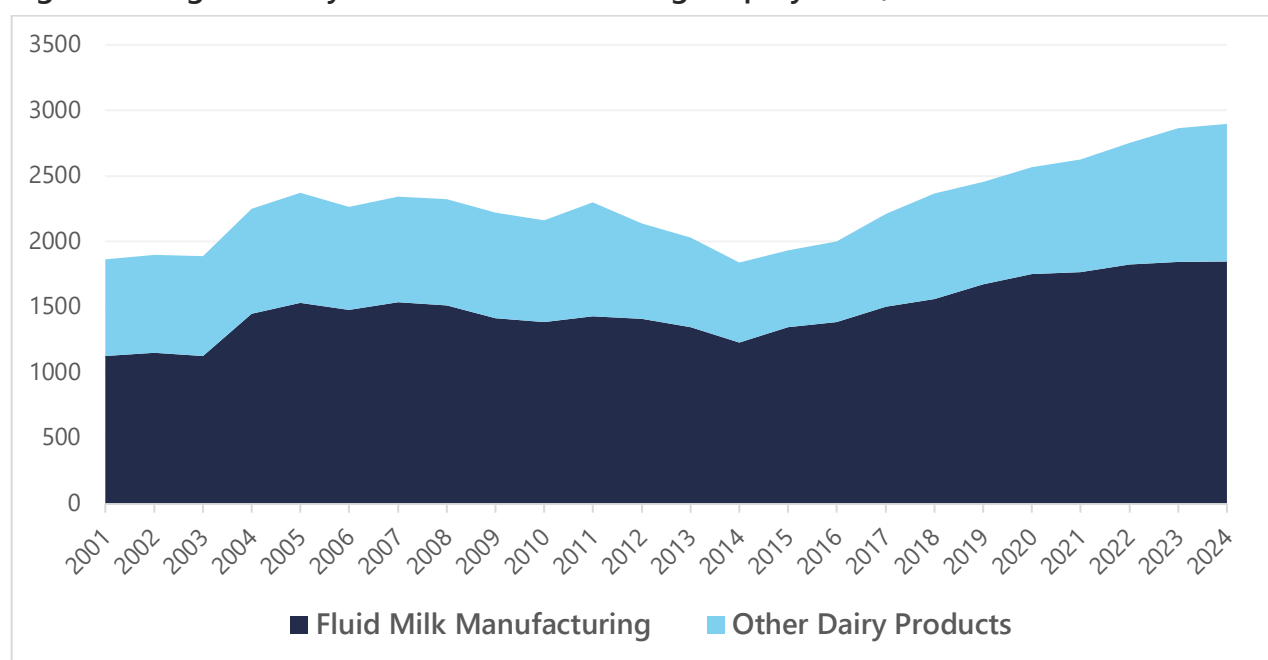
These industries are also commonly treated as core components of state dairy industries in economic contribution work because they represent the main channels through which raw farm milk is manufactured into higher-value consumer products and dairy ingredients. In practical terms, including these processing industries alongside milk production provides a more complete view of the dairy value chain (from farm output to finished products). Many dairy contribution studies implement this "production + processing" framing within an input-output model (treating processing as a distinct modeled segment and using dairy manufacturing categories within the processor supply chain) while also taking care to avoid double counting when milk produced on farms is used as an input into dairy manufacturing (Stevens et al. 2008; Sumner, Medellín-Azuara and Coughlin 2015; Neibergs and Nadreau 2021).

Milk produced on Virginia farms is transported to processing facilities to be bottled or turned into manufactured dairy foods. Major dairy product manufacturers in the state include companies and organizations like Maryland & Virginia Milk Producers Cooperative Association (MD & VA), which operates the Maola (formerly known as Marva Maid) fluid milk plant in Newport News; HP Hood in Winchester (a producer of fluid and extended-shelf-life dairy products); Shamrock Farms in Verona (a producer of extended shelf life dairy products and coffee creamers); Kroger Company which operates Westover Dairy in Lynchburg (a producer of fluid milk); Danone North America in Rockingham County (formerly WhiteWave Foods, producing dairy and plant-based beverages and coffee creamers); and Abbott Nutrition in Campbell County (producer of infant formula using dried milk). There are also several smaller cheese, butter, yogurt, and ice cream makers.

Employment in Virginia's dairy product manufacturing has trended upward over the long run, even as on-farm dairy employment has continued to decline. Data show that dairy manufacturing employment was just under 2,000 jobs in the early 2000s, with fluid milk manufacturing accounting for the majority (**Figure 5**). After some mid-2000s growth and a dip that bottomed out around the mid-2010s, processing employment has risen steadily, reflecting

new investment and expansion in value-added lines, particularly dry/condensed dairy products and other specialty categories, alongside continued growth in fluid milk processing. By 2024, Virginia's dairy product manufacturers employed about 2,900 workers (annual average), up by roughly 1,000 jobs since the mid-2010s. This strengthening of the processing segment has helped offset some of the job losses in on-farm production and has reinforced Virginia's evolution toward a more value-added, manufacturing-oriented dairy industry. In economic terms, the processing side now far eclipses the farm side of the dairy industry. As the results show, dairy manufacturing contributes the majority of the sector's output and GDP, underscoring the importance of activities like milk pasteurization and further processing into products such as condensed/dry dairy ingredients, cheese, butter, and ice cream.

**Figure 5. Virginia Dairy Product Manufacturing Employment, 1990-2024**



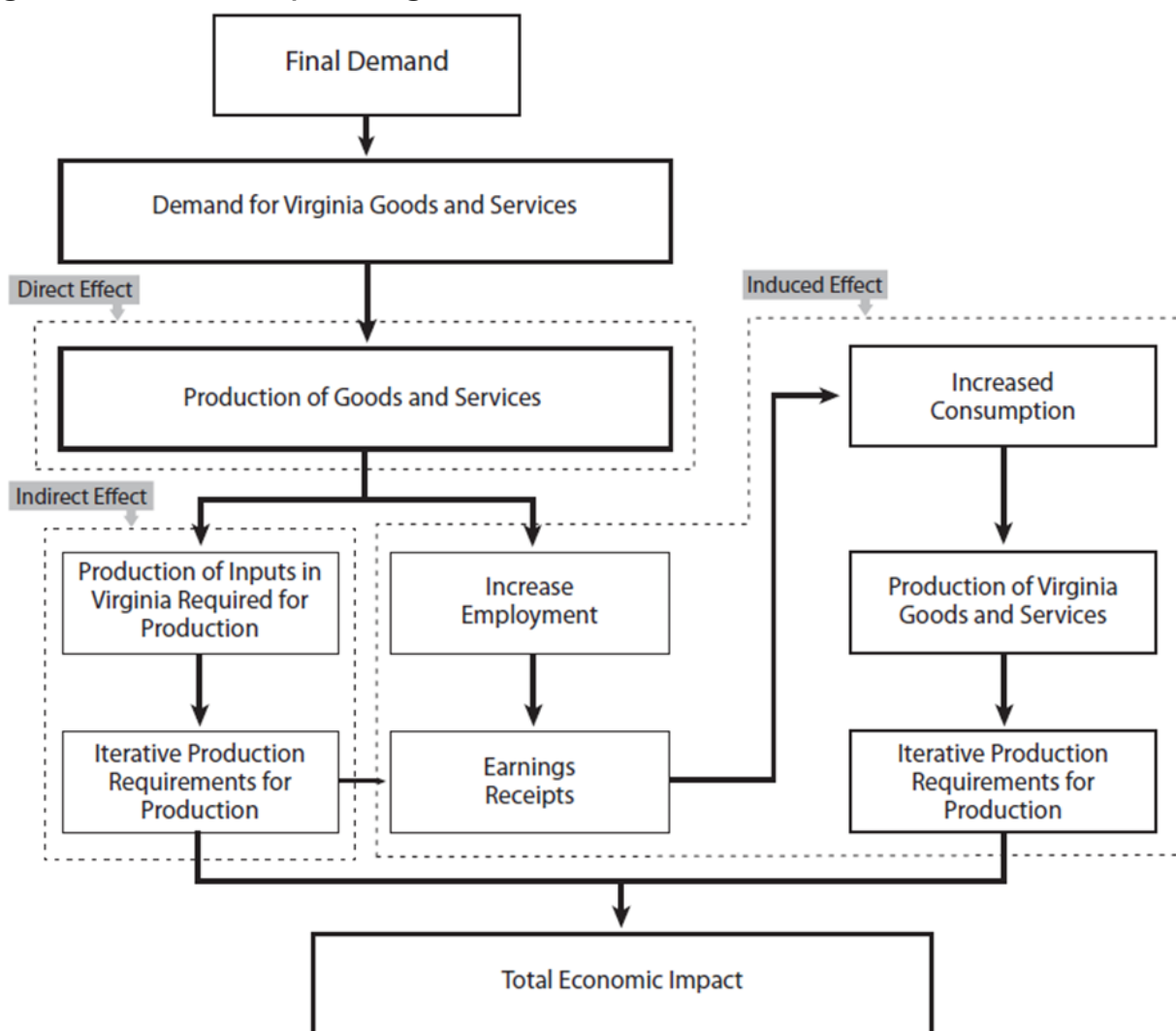
Source: Lightcast

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## Methodology and Data

This study estimates the economic contribution of Virginia's dairy industry using input-output analysis. Input-output analysis produces industry economic multipliers that show how changes in one sector's activity affect the broader economy. Studies of this type are sometimes termed "economic impact" analyses, although they are more accurately described as economic contribution or footprint analyses since they trace gross economic activity supported by an industry rather than net new impact (Watson et al. 2007). For simplicity, we use the term "economic impact" to refer to the results. The total economic impact of an industry consists of three components: the direct effect, the indirect effect, and the induced effect. The direct effect is the immediate contribution from the industry's own production activities—in this case, the output and jobs directly associated with dairy farming and dairy product manufacturing in Virginia. This direct production generates further rounds of spending in the state economy. Farms and dairy plants purchase inputs from local suppliers (e.g. feed, veterinary services, utilities, packaging, transport), and those suppliers in turn make purchases from other Virginia businesses. This cascading sequence of inter-industry transactions creates the indirect effect, which captures the supply chain impacts within the state. Additionally, employees of dairy farms, processing plants, and their suppliers spend their income on household purchases in Virginia (such as housing, groceries, and services). These consumer expenditures generate the induced effect, which reflects the impacts of household spending supported by the dairy industry's labor income. The sum of direct, indirect, and induced effects gives the total economic impact of the dairy industry on Virginia's economy. **Figure 6** provides a diagram of these impact flows.

Figure 6. Economic Impact Diagram



The impact analysis was conducted using the IMPLAN economic modeling system (IMpact analysis for PLANning software). IMPLAN is a widely used input-output modeling framework and has been applied in many similar studies, including prior statewide assessments of Virginia's agriculture and forest industries (Rephann 2013; Rephann 2017; Rephann 2022) as well as a range of dairy industry contribution/impact studies in other states and at the national level (e.g., Stevens et al. 2008; Sumner, Medellín-Azuara and Coughlin 2015; Neibergs and Nadreau 2021; Deller, Hadachek and Polzin 2024; Milhollin et al. 2024). This report also builds on the prior 2015 Weldon Cooper Center assessment of Virginia's dairy industry (Rephann 2015). The IMPLAN model for Virginia captures the detailed industry linkages within the state's economy using data on spending patterns and commodity flows. We evaluate impacts in terms of four key measures: output, value added, labor income, and employment. Total output (or total industry output) is

the overall value of production or sales by an industry. This measure includes intermediate sales (business-to-business transactions) as well as final sales to consumers. Value added is a subset of output that represents the contribution to GDP; it includes employee compensation, proprietor (business owner) income, and indirect business taxes, and excludes the value of intermediate inputs to avoid double counting. Value added is the preferred measure for comparing an industry's contribution to the economy's GDP. Labor income is the portion of value added that accrues to workers and owners as earnings (wages, salaries, and proprietor profits). Employment is measured in terms of jobs (full-time and part-time) on an annualized basis; it includes wage and salary employees as well as self-employed farm owners, measured by place of work. All results in this report are for the calendar year 2024 and are reported in 2024 (nominal) dollars.

To estimate the dairy industry's direct economic activity, this study relies on the IMPLAN 2024 Virginia dataset and IMPLAN's built-in measures of industry output, employment, value added, and labor income for the sectors included in the analysis. For the dairy manufacturing segment, we evaluated IMPLAN sectors corresponding to the following NAICS industries: Fluid Milk Manufacturing (NAICS 311511); Creamery Butter Manufacturing (NAICS 311512); Cheese Manufacturing (NAICS 311513); Dry, Condensed, and Evaporated Dairy Product Manufacturing (NAICS 311514); and Ice Cream and Frozen Dessert Manufacturing (NAICS 311520). For the farm segment, we used the IMPLAN sector corresponding to Dairy Cattle and Milk Production (NAICS 112120). Importantly, the direct output and employment values reported in **Tables 2-4** reflect IMPLAN's internally estimated 2024 baseline for Virginia (i.e., the modeled economy) rather than external event inputs or user-supplied control totals. IMPLAN then uses its input-output framework to estimate the industry's indirect (supply-chain) and induced (household spending) effects within Virginia based on the relationships embedded in the 2024 IMPLAN dataset. Separate USDA and QCEW series are referenced elsewhere in this report to describe long-term trends in production, prices, and manufacturing employment, but were not used to overwrite IMPLAN's 2024 baseline values.

It is important to properly scope the analysis to avoid misinterpreting results when multiple, vertically-related industries are examined together. In this study, we define the dairy industry to include both dairy cattle and milk production and the aforementioned major dairy product manufacturing sectors. Impacts are estimated using IMPLAN's 2024 Virginia data and standard input-output relationships, with results reported as direct, indirect (supply-chain), and induced (household spending) effects. Because the analysis includes both farm production and downstream dairy manufacturing as part of a single, broader "dairy industry" definition, the results should be interpreted as the economic contribution of the dairy value chain in Virginia, rather than as the impact of a single exogenous change in final demand. All impacts are calculated for Virginia, and purchases that are sourced from outside the state are treated as leakages and do not generate in-state multiplier effects.



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## Results

The direct economic footprint of Virginia's dairy industry in 2024 is summarized in **Table 2**. In 2024, dairy farming and dairy product manufacturing directly generated 4,637 jobs in Virginia, along with about \$4.33 billion in industry output (sales). This direct output corresponds to roughly \$1.12 billion in direct value added (contribution to GDP) and about \$296.9 million in labor income (earnings).

Among the components of the industry, dairy processing now accounts for the majority of economic activity. The largest segment by far is Fluid Milk Manufacturing, which includes milk bottling and other beverage products; this segment employed about 1,927 workers and produced \$2.07 billion in output. Fluid milk processing alone generated nearly half of the entire dairy industry's output. The Dry, Condensed, and Evaporated Dairy Products segment (which covers products like powdered milk, dry whey, and infant formula) is another major contributor, with \$1.0 billion in direct output and around 622 jobs. Creamery Butter Manufacturing has also become significant in Virginia, accounting for \$727 million in output and 273 jobs. By comparison, dairy farming (Dairy Cattle and Milk Production) directly supported about 1,607 jobs statewide and produced roughly \$402 million worth of raw milk and cattle in 2024. Farm production thus represents less than 10% of the dairy industry's direct output, although it still accounts for about one-third of direct employment. Smaller processing sectors in the state include Ice Cream and Frozen Dessert Manufacturing (159 direct jobs, \$67.5 million output) and Cheese Manufacturing (49 jobs, \$62.6 million output), reflecting the fact that Virginia has relatively limited production in those categories (most large-scale cheese production in the U.S. is concentrated in other states). In total, Virginia's dairy product manufacturing (all processing segments combined) provided approximately 3,030 direct jobs in 2024 and contributed about \$3.93 billion of direct output. These figures highlight the shift of the dairy industry toward value added processing activities.

**Table 2. Virginia Dairy Industry Direct Employment, Output, Value Added and Labor Income, 2024**

COMPONENT	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Dairy Cattle and Milk Production	1,607	\$402,008,216	\$77,234,059	\$26,135,981
Cheese Manufacturing	49	\$62,641,767	\$12,453,441	\$3,611,670
Dry, Condensed, and Evaporated Dairy Product Manufacturing	622	\$1,002,660,752	\$355,151,781	\$57,055,598
Fluid Milk Manufacturing	1,927	\$2,071,973,642	\$526,337,692	\$181,540,800
Creamery Butter Manufacturing	273	\$727,335,207	\$131,278,025	\$21,689,072
Ice Cream and Frozen Dessert Manufacturing	159	\$67,513,151	\$14,795,333	\$6,928,718
<b>Total Dairy Industry</b>	<b>4,637</b>	<b>\$4,334,132,735</b>	<b>\$1,117,250,331</b>	<b>\$296,961,839</b>

The ripple effects of the dairy industry's activities create additional economic impacts beyond direct farm and factory operations. **Table 3** presents the direct, indirect, induced, and total impacts of each component of the dairy industry, as well as the aggregated total. Considering the industry as a whole, the total impact was an estimated 12,299 jobs and \$5.99 billion in output in 2024. If we assume that Virginia's value added dairy producers rely primarily on Virginia-produced raw inputs, then the industry's total 2024 economic footprint translates to roughly 0.19 jobs and about \$91,000 in total economic output per milk cow, or approximately one job supported for every 5–6 milk cows.

The ratio of total impact to direct impact gives a sense of the multipliers. For example, the employment multiplier for the overall dairy industry is 2.65, meaning that each direct dairy job supports about 1.65 additional jobs in other sectors of Virginia's economy. The output multiplier is around 1.38, indicating that each dollar of dairy product sales generates an additional \$0.38 in output among Virginia suppliers and businesses. The value added multiplier is approximately 1.84, and the labor income multiplier is about 2.79; the latter signifies that for every \$1 of wages or proprietor income paid in the dairy industry, an additional \$1.79 in income is generated elsewhere in the state through indirect and induced channels. These multipliers are somewhat higher (for employment) or comparable (for output and income) to those found in the prior analysis (Rephann 2015), which can reflect changes in the industry's linkages and the broader economy. In general, the dairy industry's multipliers are substantial, especially for employment

and labor income, which underscores the labor-intensive nature of both the supply chain and the consumer spending effects.

**Table 3. Virginia Total, Direct, Indirect, and Induced Impacts of Dairy Industry, 2024**

IMPACT	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
<b>Dairy Cattle and Milk Production</b>				
Direct	1,607	\$402,008,216	\$77,234,059	\$26,135,981
Indirect	1,233	\$238,323,506	\$111,561,092	\$62,040,271
Induced	323	\$61,842,366	\$39,237,334	\$19,381,110
Total	3,163	\$702,174,088	\$228,032,486	\$107,557,362
Multiplier	1.97	1.75	2.95	4.12
<b>Cheese Manufacturing</b>				
Direct	49	\$62,641,767	\$12,453,441	\$3,611,670
Indirect	107	\$25,003,173	\$10,410,775	\$5,778,062
Induced	34	\$6,570,468	\$4,168,227	\$2,058,740
Total	190	\$94,215,408	\$27,032,444	\$11,448,472
Multiplier	3.87	1.50	2.17	3.17
<b>Dry, Condensed, and Evaporated Dairy Product Manufacturing</b>				
Direct	622	\$1,002,660,752	\$355,151,781	\$57,055,598
Indirect	1,368	\$364,197,990	\$161,782,853	\$89,007,928
Induced	534	\$102,124,589	\$64,793,741	\$32,004,244
Total	2,523	\$1,468,983,331	\$581,728,375	\$178,067,770
Multiplier	4.06	1.47	1.64	3.12
<b>Fluid Milk Manufacturing</b>				
Direct	1,927	\$2,071,973,642	\$526,337,692	\$181,540,800
Indirect	4,049	\$954,438,329	\$414,267,272	\$233,566,748
Induced	1,515	\$289,771,336	\$183,978,006	\$90,875,285
Total	7,491	\$3,316,183,307	\$1,124,582,970	\$505,982,833

IMPACT	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Multiplier	3.89	1.60	2.14	2.79
<b>Creamery Butter Manufacturing</b>				
Direct	273	\$727,335,207	\$131,278,025	\$21,689,072
Indirect	1,520	\$458,863,714	\$192,746,313	\$104,742,023
Induced	463	\$88,561,251	\$56,194,187	\$27,756,918
Total	2,256	\$1,274,760,172	\$380,218,524	\$154,188,013
Multiplier	8.26	1.75	2.90	7.11
<b>Ice Cream and Frozen Dessert Manufacturing</b>				
Direct	159	\$67,513,151	\$14,795,333	\$6,928,718
Indirect	110	\$33,568,599	\$15,514,359	\$8,930,051
Induced	58	\$11,077,123	\$7,027,353	\$3,470,742
Total	327	\$112,158,873	\$37,337,045	\$19,329,512
Multiplier	2.05	1.66	2.52	2.79
<b>Total Dairy Industry</b>				
Direct	4,637	\$4,334,132,735	\$1,117,250,331	\$296,961,839
Indirect	5,181	\$1,180,303,065	\$637,147,662	\$382,463,318
Induced	2,480	\$474,158,440	\$301,143,337	\$148,764,854
Total	12,299	\$5,988,594,241	\$2,055,541,330	\$828,190,011
Multiplier	2.65	1.38	1.84	2.79

At the component level, impacts vary by segment. The Fluid Milk Manufacturing segment, being the largest, yields the greatest total impact: about 7,491 total jobs and \$3.316 billion in output when direct and spillover effects are combined. This includes not only the 1,927 direct processing jobs but also thousands of jobs at suppliers (e.g. farms, packaging manufacturers, trucking companies) and in local service businesses supported by the income from the fluid milk plants. The dry/condensed dairy products segment also has a wide reach, with a total impact of roughly 2,523 jobs and \$1.469 billion in output. Its output multiplier is over 1.46 and employment multiplier around 4.06, reflecting that many supplier industries (such as plastics, machinery, and logistics) are engaged in supporting powdered milk and related product manufacturing. Butter manufacturing stands out with an especially high employment multiplier

(approximately 8.3), as its direct workforce is relatively small (273 jobs), but it triggers a large network of supporting activities (over 1,980 additional jobs indirectly and induced). The butter segment's total impact is about 2,256 jobs and \$1.275 billion in output. Dairy farming (milk production) itself, when multiplier effects are counted, contributes an estimated 3,163 total jobs and \$702 million in output to Virginia's economy. In other words, beyond the 1,607 farmers and farm workers directly employed, dairy farming supports roughly 1,556 additional jobs through its purchases of inputs (such as feed, equipment, and veterinary services) and the spending of farm household incomes. The cheese and ice cream manufacturing segments have more modest footprints—each on the order of a few hundred total jobs and under \$120 million in output—but they still generate notable indirect and induced effects for their size. For instance, ice cream production in Virginia (159 direct jobs) results in a total impact of about 327 jobs after accounting for suppliers (dairy mix providers, packaging, cold storage, etc.) and consumer spending by employees.

The dairy industry's economic contributions extend across a broad array of sectors in Virginia's economy. **Table 4** summarizes the total impact of the dairy industry by major industry sector. Not surprisingly, the largest employment impact falls within the Agriculture, Forestry, Fishing and Hunting sector, with about 2,250 jobs supported. This includes the 1,600+ dairy farm jobs as well as additional jobs at agricultural input providers (such as hay and feed crop farms) that supply the dairy industry. The Manufacturing sector shows a total of 3,176 jobs supported, which primarily consists of the dairy product manufacturing jobs directly in the industry, along with some indirect jobs in manufacturing subsectors that provide inputs (for example, manufacturers of containers, machinery, cleaning chemicals, etc., used by dairy processors). Beyond these direct industry categories, a significant number of jobs are supported in service and trade sectors due to the dairy industry's supply chain and induced effects. For instance, the dairy industry supports an estimated 1,496 jobs in Transportation and Warehousing, stemming from the need to transport milk from farm to plant and to deliver finished dairy products to markets (trucking, refrigeration logistics, etc.). In the Wholesale Trade and Retail Trade sectors about 986 and 566 jobs, respectively, are supported by dairy-related commerce. These include wholesale distributors handling dairy products and retail outlets (grocery stores, etc.) selling milk and dairy items, as well as the ripple effects of industry spending on goods. The Administrative and Support and Waste Services sector (which covers services like equipment maintenance, sanitation, and administrative support) has roughly 556 jobs attributable to the dairy industry's activity. Similarly, around 409 jobs in Professional and Technical Services (including fields such as engineering, accounting, and veterinary services) are supported by the dairy industry. Other sectors affected primarily by induced household spending include Health Care and Social Assistance (499 jobs), Accommodation and Food Services (397 jobs), and Finance and Insurance (399 jobs), among others. This broad-based distribution of impacts illustrates how an agricultural manufacturing industry like dairy creates economic value well beyond the farm and



factory gates by supporting jobs for truck drivers, input suppliers, mechanics, consultants, shopkeepers, and countless other occupations throughout the Commonwealth.

**Table 4. Total Impact of Virginia's Dairy Industry by Major Sector, 2024**

INDUSTRY	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Agriculture, Forestry, Fishing and Hunting	2,250	\$438,481,619	\$94,070,774	\$35,731,868
Mining, Quarrying, and Oil and Gas Extraction	5	\$2,581,833	\$968,024	\$384,232
Utilities	36	\$53,506,348	\$28,747,639	\$6,525,652
Construction	76	\$15,871,822	\$8,339,174	\$6,073,477
Manufacturing	3,176	\$4,058,562,595	\$1,068,643,036	\$283,389,595
Wholesale Trade	986	\$320,514,516	\$183,236,705	\$97,889,219
Retail Trade	566	\$68,540,393	\$52,168,380	\$24,356,715
Transportation and Warehousing	1,496	\$208,962,761	\$113,083,139	\$82,401,283
Information	131	\$72,400,193	\$39,316,360	\$17,895,712
Finance and Insurance	399	\$126,012,365	\$66,997,179	\$36,336,585
Real Estate and Rental and Leasing	345	\$166,047,976	\$104,755,379	\$10,668,691
Professional, Scientific, and Technical Services	409	\$98,031,764	\$71,627,465	\$48,870,530
Management of Companies and Enterprises	307	\$90,891,242	\$62,891,295	\$53,999,631
Administrative and Support and Waste Management and Remediation Services	556	\$71,732,716	\$45,516,490	\$34,445,548
Educational Services	85	\$8,011,863	\$4,916,831	\$4,395,170

INDUSTRY	EMPLOYMENT	OUTPUT	VALUE-ADDED	LABOR INCOME
Health Care and Social Assistance	499	\$71,937,513	\$45,508,053	\$38,570,265
Arts, Entertainment, and Recreation	133	\$13,132,090	\$6,899,494	\$4,963,377
Accommodation and Food Services	397	\$41,106,077	\$22,352,904	\$12,981,807
Other Services (except Public Administration)	358	\$38,098,544	\$22,927,641	\$18,675,050
Government Enterprises	88	\$24,170,011	\$12,575,369	\$9,635,605
<b>Total</b>	<b>12,299</b>	<b>\$5,988,594,241</b>	<b>\$2,055,541,330</b>	<b>\$828,190,011</b>

In summary, the dairy industry remains a significant contributor to Virginia's economy. It has evolved in recent years, with a trend toward fewer but larger farms and a growing emphasis on processing and value-added production. Despite facing challenges such as price volatility and sector consolidation, Virginia's dairy farms continue to produce a stable volume of milk, and the state's dairy processing firms have expanded to handle not only local milk but also to produce a variety of dairy foods for broader markets. The result is an industry that directly and indirectly supports thousands of jobs and generates over \$800 million in household income in Virginia. The dairy industry's economic linkages spread benefits across rural communities (through farm production and farm service industries) and urban centers (through processing plants, distribution, and consumer spending impacts). As the industry adapts to changing market conditions, its combination of agricultural foundation and manufacturing activity will remain an important part of Virginia's diverse economic landscape.

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