

**The Contribution of the Dairy Industry to the Idaho Economy – 2015 Update**

Analysis for

**Idaho Dairymen's Association**

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Idaho’s dairy industry (dairy producers and milk processors) has continued its growth in recent years; specifically, in terms of employment, output and value added. Most of the growth has been in milk processing, and the number of dairy producers has been relatively stable. Direct on farm employment in Idaho from Idaho’s dairies for 2015 totaled just over 8,100 jobs (Table 1). Additionally, the dairy producers generated \$3.2 billion in gross sales and directly contributed \$1.2 billion in gross state product. However, the dairy producers are only one part of a larger combined dairy industry in Idaho. The milk producers sell over 95% of their output to local milk processors who create a variety of milk products including cheese, yogurt, and powdered milk. To measure the full economic contribution of both milk producers and milk processors, we need to model the linkages that exist within the combined dairy industry and with the broader Idaho economy.

**Table 1 - Direct economic activity in Idaho associated with the dairy producers and the milk processors respectively in 2015. \*Small discrepancies in total are due to rounding.**

	<b>Dairy Producers</b>	<b>Milk Processors</b>	<b>Total Combined Dairy Industry*</b>
<b>Direct Employment</b>	8,100 jobs	3,700 jobs	11,900
<b>Gross State Product (GSP)</b>	\$1.2 billion	\$400 million	1.5 billion
<b>Direct Output (sales)</b>	\$3.2 billion	\$3.8 billion	7.0 billion

In order to measure the interindustry linkages that exist within the Idaho economy, we constructed a social accounting matrix (SAM) model to measure the total economic base contributions of the combined dairy industry on the state’s economy. A SAM model identifies the cumulative, interdependent nature of economic expansion or contraction among each industry within an economy. This helps to determine how industries are linked together, enabling to measure the effects of each industry on every other industry. These effects are separated into direct and indirect effects. As a base industry, the dairy industry generates demand for agricultural exports, thus bringing new money into the economy. The direct effects reflect each dollar of this export demand that creates one dollar of output Whereas the indirect effects capture the rippling that occurs in the economy as each dollar from agricultural exports is spent in the region - in sectors linked to the dairy industry. Overall, the contributions of the

dairy industry are propelled by exports, amplified by linkage, and then dampened by leakage of money out of the economy through imports. Exports beyond the borders of Idaho of milk and milk products totaled \$4.2 billion in 2015 with the overwhelming majority of the exports coming from processed milk products such as cheese, yogurt and dry milk products. These exports represent new money brought into Idaho and can be translated into jobs, output in sales, earnings, and value-added that are generated both in the combined dairy industry and in the broader Idaho economy through economic linkages with the dairy industry.

Raw milk producers are highly integrated with producers of processed dairy products. Over 95% of the sales from raw milk producers go to Idaho producers of processed dairy products, meaning raw milk producers are responsible for very little of the overall dairy industry exports. On the other hand, the processed dairy producers export an overwhelming majority of their sales out of the state, thereby generating the majority of the dairy industry exports. Just as important, without the existing local supply of raw milk, the processed dairy producers would have had to import the raw milk, consequently leaking money out of the economy. Furthermore, it is highly doubtful that the milk processors would exist in the state of Idaho were it not for the dairy producers. This highly integrated production regime demonstrates the primary reason for jointly measuring the contributions from the raw milk and processed milk producers.

The number of jobs and economic activity generated in the state by the dairy producers and the milk processors doesn't end at the dairy farms or at the milk processing facility. The dairy farms, for example, purchase feed from local crop farmers, thereby creating additional jobs. Likewise, the milk processors purchase a variety of inputs from other businesses thus creating additional jobs across the state's economy.

After accounting for economic linkages in the Idaho economy, we find that Idaho's dairy industry in 2015 contributed 39,400 jobs, \$3.5 billion in GSP and \$10.4 billion in gross sales to the state economy (Table 2). Overall, the economic base contribution of the combined dairy

industry represents over 5% of the total GSP in the state of Idaho and 33% of the state's total agribusiness (production and food processing) sector.

**Table 2 - Total economic contribution of the dairy producers and milk processors to the Idaho state economy in 2015; including the direct, indirect, and induced effects of the new dollars brought into the state by the combined dairy and milk processing industry.**

	<b>Total Economic Contributions</b>
<b>Employment</b>	39,400 jobs
<b>Value-Added (State GSP)</b>	\$3.5 billion
<b>Output (Sales)</b>	\$10.4 billion