

# What Do We Mean by Economic Output?

## Explanation of Economic Impact Terms

### Data

The data gathered for this model came from Infogroup, IDFA, and federal and state government data. Infogroup is the leading provider of business and consumer data, which includes addresses, business titles and job totals. Since the Infogroup data are adjusted on a continual basis, staff from John Dunham & Associates (JDA) scanned the data for discrepancies, verifying individual facilities using Google Maps, web searches, and any available online government documents. Each facility has its own employee count; therefore, a company with an office and a processing plant would have two facilities, each with separate employment counts. In addition, for cases where employment data for IDFA member firms were available, Infogroup employment figures were replaced with those from IDFA.

### Model

These employment totals are entered into the IMPLAN Model. The IMPLAN model is based on the input-output accounts published by the US Department of Commerce, Bureau of Economic Analysis and is one of the standard models used to calculate economic impact figures. Input-Output tables representing the economy in 2018 were used in this analysis. The IMPLAN model is designed to run based on the input of specific direct economic factors, like direct jobs, and generates estimates of direct wages and outputs.

### What is Meant by the Term Direct?

Direct Impacts are those jobs, wages or economic output, solely attributable to the industry defined for the study; in the case of the dairy industry this includes processors, wholesalers and retail. We like to say that they are the jobs that one can count. If one goes to a dairy processing plant and counts the number of people working there, that would be the direct employment (although there may be more people working than there are jobs since many people work only part time). JDA uses direct employment at these sites that are defined to be part of the industry to calculate all of the other effects presented in the study.

### What is Meant by the Term Supplier?

Supplier is the term used throughout the economic impact study to define those effects that result from firms in the defined (or Direct) industry purchasing goods and services from other industries. For example, when a dairy company pays rent on its warehouse to their landlord, or when they hire a trucking company to deliver products, they are creating supplier effects in the real estate sector or trucking sector of the economy.

### What is Meant by the Term Induced?

Induced effects are the responses in the economy that occur through re-spending of income received by employees and business owners measured in the direct and supplier parts of the economy. When people work for a dairy processing company or for firms that supply goods and services to the industry, they receive wages and other payments. This money is recirculated through their household spending inducing further local economic activity. Economists call these induced impacts the multiplier effect of an activity or industry.

Examples of induced effects are the jobs created in a diner located outside of a plant gate where people purchase sandwiches for lunch, or at the gas station where they purchase fuel for their commute, or even in neighborhoods, where workers purchase houses, go to restaurants or visit the movie theater.

### **What is Meant by the Term Indirect?**

Throughout the talking points, “Indirect” refers to the sum of Supplier and Induced impacts. For example, in the national talking point, the 2,277,473 indirect jobs are the sum of the supplier jobs (1,236,840) and induced jobs (1,040,633).

While straightforward, this requires a disclaimer: “Indirect” impacts are the technical term for supplier impacts. Anyone familiar with IMPLAN may be inclined to read “Indirect” as “Supplier”. However, for the sake of the IDFA talking points, the term “indirect” is used to refer to the sum of supplier and induced impacts.

### **What Specifically Do You Mean When You Say a Job?**

Jobs are a measure of the annual average of monthly jobs in each industry as defined by the Quarterly Census of Employment and Wages put out by the Bureau of Labor Statistics. Jobs in the IDFA model are derived independently and do not match jobs reported by government entities in that JDA often defines industries differently, and because JDA includes more firms and facilities than are surveyed by the government. Jobs are measured in full-time equivalent units.

### **What is Meant by The Term Economic Output or Economic Impact?**

JDA uses output in its models as a general measurement of economic impact because it is the broadest and most comparative measure. In general, output represents the value of industry production for the model year calculated in terms of producer prices. Output differs depending on the industry being measured. In the case of the dairy processing industry, Output is similar to gross sales for Dairy Product Manufacturers. For Wholesalers and Retailers, output does not represent sales, but rather is similar to the accounting measure of gross margin. One way to look at it is the Output is total sales revenue minus its cost of goods sold. This is similar to the wholesale or retail markup on a product.