

The Supply Chain of Cheese



What do you think about when you look at a package of Mozzarella Cheese? Do you think about economic development? No you probably think about lasagna or pizza!

This kind of cheese and many others are manufactured at Liuzzi Cheese in Hamden CT and sold in 31 states. Because of this demand, many people have jobs to make, sell and distribute the cheese as well as other products.

I've learned about the incredible number of interdisciplinary jobs that connect together and other businesses needed to make and distribute the cheese. What I'm talking about is called **supply chain**. Economic Developers think of supply chain in terms like *output growth* or *the multiplier effect*. For example this might include the number of jobs that come from directly or indirectly one manufacturing job. The "chain" is the connection of jobs that spin off and businesses that are impacted by one "cheese job".

Traditionally we think of biotech or advanced manufacturing when discussing supply chain. For example, medical devices are an important part of the supply chain of biotech because it totally dependent on the success of the biotech or STEM (Science, Technology, Engineering and Math) related sectors.

However because there can only be so many jobs in biotech or advanced manufacturing and there can only be so many PHDs that benefit, I say we should focus just as hard on the needs of companies that make up the rest of manufacturing market, which requires traditional manufacturing skills such as the conversion of raw materials and assembly of manufactured parts. It is therefore important to support the supply chain in terms of public policy and workforce development and public education curriculum strategies.

We must support businesses that impact the supply chain with incentives and workforce support as it relates to all industries, not just high tech. This is necessary so that the

taxpayers, PTA members, students, public officials and those who control policy and the purse strings of government understand how this beautiful piece of “Mootz” impacts so many jobs and so many other businesses. Economic Developers and policy makers must articulate the impacts of the traditional manufacturing job market. It is often the case that these smaller manufacturers are people who you know in your community.

So let’s examine the Liuzzi Cheese Company in Hamden and the supply chain that depends on lasagna and the religion of pizza in the USA. Let’s look at how and why it is important to measure the importance of job creation, training, the economic impact of regulations, investment and the role of incentives and the increase tax base.

Liuzzi Cheese Company began in 1981 with two brothers on State Street in North Haven. The brothers learned their craft from 5 generations of cheese making going back to 1881. From 1981 through 2004, the cheese was made behind the retail store on State Street. In 2004, Liuzzi took advantage of the CT Urban Jobs tax abatement program (80% abatement on real and personal property for 5 years) and the Town of Hamden’s Business Incentive Program (a \$5,000 grant and waiver of some permit fees) to move their 12 employees into a 30,000 SF manufacturing building. The incentives allowed Liuzzi to reinvest their cash flow into their company at a critical time in their development. They are now expanding again with nearly \$2M investment in real property and personal property improvements as well as creating new jobs. They are currently at 65 employees and plan to expand by another 5-10 employees.

The Production of Cheese

Making cheese is a complicated and highly regulated process. It takes a large amount of milk and other dairy products as well as science and skill to make a healthy and consistent product.

Raw Materials are imported by Liuzzi from dairy farms all throughout the northeast all the way to the mid-west. Without milk they could not function. The *farm to table* concept is alive and well with the cheese that Liuzzi makes. The farmers who own these dairy farms owe their existence to family run businesses like Liuzzi who look for the smaller farms and not those found in large, industrial agriculture. Each dairy farm employs workers, administration and bookkeeping staff, truck drivers, maintenance, etc., all of whom survive on businesses like Liuzzi cheese. Over 40% of the milk the Liuzzi purchase comes from two CT dairy farmers. They are always looking for new opportunities to buy in CT and the New England region.

The Science and Food Safety of Cheese Production

As part of the production process, Liuzzi employs staff to work in their on-site laboratory to make sure the cheese meets the highest health and safety standards. The employees must be certified by the government (more technical jobs!) to document the quality and content of the cheese. All employees in the making of cheese are cross trained and educated in food safety regulations, therefore impacting public safety employment.

An interesting aspect of cheese production is how they take the byproducts of one cheese and use it to make another. For example the extra “cheesy water” from the

making of mozzarella called whey, is used to make Ricotta and other cheese products, so the testing of the by-product is critical to making the other cheese and additional market share. This requires that several employees work in the on-site lab to meet quality standards. A total of 50 employees at Liuzzi work in various aspects of the production of the product earning good wages. Liuzzi spends roughly \$20,000 annually just of food safety training and compliance. So many “outside” jobs are affected by the training required for food safety.

Warehousing and Distribution of Cheese

Liuzzi has climate controlled deep storage facility to age the cheese to be ready for market. They own four trucks that makes 75% of the deliveries and they hire outside trucking concerns to handle long range deliveries to the 31 states where they sell product. Each truck must be maintained and serviced either by Liuzzi employees or outside mechanics (more jobs!). The impact to the auto, storage, packaging, insurance and other sectors is significant because of the distribution needs of Liuzzi.

Import and Exporting

Liuzzi sells their products in 31 states and thus must deliver the cheese in its proper temperature and quality. Additionally the retail store in North Haven (20 employees) also includes other products from Italy such as pepperoni, salami etc. The transportation sector is therefore deeply impacted by Liuzzi and other companies from the import and export marketplace.

Facility Maintenance and Management of Cheese

Each night a cleanup crew works from the end of the last shift at 11pm for 6 hours to make the production and storage area is spotless. The work is critical and the supply chain includes the purchase and trucking of cleaning products. Twenty percent of all Liuzzi employees are involved in maintenance and management. Suppliers and distributors of cleaning materials rely on companies like Liuzzi.

Regulatory Compliance

Food safety laws are strict and Liuzzi must have proper legal representation and must continue to upgrade their process including the logistics of manufacturing. There must be regular audits and reviews of operations procedures. Numerous outside (from Liuzzi) jobs are impacted on safety compliance.

Marketing/ Administration



Liuzzi has grown significantly since their move to Hamden in 2004. They must attend trade shows and enter contests to keep their market share. Their effort has paid off over the last several years. Recently Liuzzi won first place in three categories (Mozzarella, Burrata and Ricotta) at the annual **American Cheese Society** competition in Wisconsin. This kind of publicity is critical in maintaining Liuzzi's market share and impacts several marketing jobs.

So cheese is a great business, if done well. Hamden is pleased to support family owned businesses who buy their ingredients from farmers in the state and in the region. The 65 current jobs at Liuzzi, impacts an additional 70-80 jobs *outside* of Liuzzi as well as positively impacting the bottom line of all of several other businesses. This demonstrates a classic supply chain impact.

In Hamden, food production goes beyond Liuzzi. Two examples include Elm City Cheese and International Provisions which makes roasted nuts, fried pork skins, plantains and several other products. Food production is an important part of the Hamden economy that effects the overall supply chain in Hamden and in the region.

- For further information about Liuzzi Cheese go to <http://liuzzimarket.com/>
- For further information about Hamden Economic Development programs, go to www.hamden-ct.com