

The “Yogurt Boom,” Job Creation, and the Role of Dairy Farmworkers in the Finger Lakes Regional Economy

A PathStone Corporation, Cornell Farmworker Program, and Cornell Cooperative Extension
Collaborative Research Project

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Introduction

Recently, local governments, state legislators, Governor Cuomo, Cornell researchers, the New York State Farm Bureau and dairy producers are taking part in statewide conversations about how dairy farms can take advantage of the yogurt boom in New York State. Meanwhile, there is little discussion about how to ensure the availability of a reliable labor supply for these dairy farms. In this report, we will provide an overview and share observations of research with farmworkers, dairy farm owners, and yogurt company representatives. This project engaged farmworkers and farm owners in discussions of what incentives could be provided to create greater stability and satisfaction among the current dairy workforce. Specifically this research explored the requirements to meet growing demand for milk. This report also provides insights on farmworkers’ economic contributions to the Finger Lakes regional economy.

In this report we will provide an overview of: 1) the role of dairy production and manufacturing in New York State; 2) the contributions that the Finger Lakes region makes to the dairy industry; and 3) a summary of the obstacles to dairy farm expansion. We will then describe the results of our interviews with farmworkers and farm owners about the economic impact of farmworkers on the regional economy and conclude with recommendations.

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Yogurt Production in New York State

To frame this research we analyzed overall trends within the New York State (NYS) dairy industry and specifically within the Finger Lakes region. From 2001 to 2011 the number of manufacturing dairy processors in the state increased from 54 to 118.¹ In 2011, New York produced more than 1.166 billion pounds of milk for yogurt production.² While statistics vary, according to Governor Cuomo's office, from 2005 to 2011 the number of yogurt plants increased from 14 to 29 plants.³ Four of the major yogurt producing plants are owned by Fage, Agro Farma (Chobani), North Country Dairy-a subsidiary of Upstate Niagara Cooperative, and Sunrise Family Farms-a producer of Icelandic skyr yogurt.⁴ Alpina, a Colombian yogurt company, recently opened its first yogurt factory in North America near Batavia, New York. As of 2011, dairy manufacturers including cheese, butter, yogurt, and ice cream provided 8070 jobs throughout the state and \$414 million in wages.⁵ New York State Agriculture and Markets estimates more than 2000 people are employed by yogurt plants and in 2011 these plants produced 530 million pounds of yogurt.⁶ This increase in yogurt production allowed Governor Cuomo to

¹These dairy processors include cheese, yogurt, ice cream, butter and cottage cheese. New York State Department of Agriculture and Markets-Division of Milk Control and Dairy Statistics. New York State Dairy Statistics 2011 Annual Summary. 11 Sept 2012.

<<http://www.agriculture.ny.gov/DI/NYSAnnStat2011.pdf> >

² This is comparable to the milk production of 500 average-size dairy farms (115 cows/farm). Jessica Ziehm. 27 Feb 2012. New York State Agriculture and Markets News. Governor Cuomo announces Pepsico and Theo Muller Choose NYS to Launch Their Joint Venture into the Yogurt Business. 5 Jun 2012.

<<http://www.agriculture.ny.gov/AD/release.asp?ReleaseID=1996>>

³ Andrew M. Cuomo's Office. 15 Aug. 2012. Governor Cuomo holds first New York State Yogurt Summit. 16 Aug. 2012. <<http://www.governor.ny.gov/press/08152012-nys-yogurt-summit>>

⁴ New York State Department of Labor. June 2012. "Upstate New York is Magnet for Greek Yogurt Producers." Employment in New York State. 1 Aug 2012.<
<http://www.labor.ny.gov/stats/PDFs/enys0612.pdf> >

⁵ New York State Department of Labor

⁶Jessica Ziehm. New York State Agriculture and Markets News.

announce in April 2013 that New York State is now the largest producer of yogurt in the country.⁷ Not only are these plants providing jobs for those that work in the plants but also for those that provide packaging and transportation of the yogurt.

Labor Demands Related to the Yogurt Boom

The conversation that surrounds the "Yogurt Boom" tends to center on two topics: 1) the number of jobs the plants and other related industries provide and will provide and 2) how to increase local milk production to allow dairy farms to take advantage of the economic opportunities of the industry. Limited attention is given to labor on the farms themselves. If farms increase their herd size, they will need more labor to milk, care for, and grow feed for their cows. Some media articles highlight how the lack of federal immigration reform presents obstacles to increasing the labor force on dairy farms. While these articles allude to the importance of immigrant labor to NYS agriculture, there is a scarcity of research that engages farmworkers' view on this issue.

PathStone Corporation, the Cornell Farmworker Program, and the North West New York Dairy Livestock and Field Crops Team of Cornell Cooperative Extension worked together from May 2012 until April 2013 to gain a better understanding of labor needs, farmworker contributions, and prospects for growth in dairy production. As part of a larger research project, the Cornell Farmworker Program collects information on how dairy farmworkers and farm owners view workplace relations.⁸ The Cornell Farmworker Program conducts face to face interviews and focus group discussions with farmworkers to obtain this information. We are including relevant data from this research on: 1) farmworkers' commitment to remaining on dairy farms 2) farmworker earnings,

⁷ Andrew M. Cuomo's office. 18 Apr. 2013. "Governor Cuomo Announces New York State is Now Top Yogurt Producer in the Nation, Delivers on Key Promises Made at Yogurt Summit to Help Dairy Farmers." 22 Apr. 2013. <<http://www.governor.ny.gov/press/04182013cuomo-nys-top-yogurt-producer>>

⁸ Cornell Farmworker Program receives partial funding support from the New York Farm Viability Institute to conduct research on workplace relations.

spending patterns, and contributions to the local economy and 3) their overall satisfaction and well-being among other topics. CCE surveys with dairy producers centered on salaries as well as other supports provided to farmworkers. This report on the Finger Lakes region, provides guidance to the Finger Lakes Regional Economic Development Council (REDC) and the State government as they examine opportunities for growth within the dairy industry.⁹ We anticipate our recommendations will serve as a catalyst to devise strategies to increase labor satisfaction and growth in the dairy sector.

New York Dairy Production

In 2010, New York State was the fourth largest producer of dairy products in the U.S with over 12 billion pounds of milk, which accounted for almost 7% of the U.S total milk production.¹⁰ (Figure 1.1) California, Wisconsin, and most recently Idaho are the top three dairy producing states in the country.

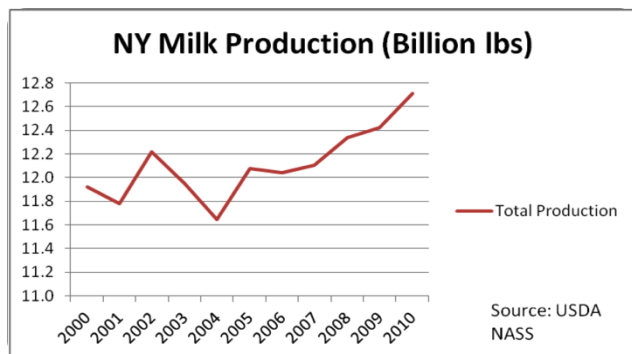


Figure 1.1 U.S. Dept. of Agriculture. Foreign Agricultural Service

Additionally, New York ranks first in cottage cheese production and third in production of other cheeses.¹¹

⁹ Western NY is an area of the state that produces 40% of the state's milk. Jessica Ziehm. New York State Agriculture and Markets News

¹⁰ USDA Economic Research Service. United States Department of Agriculture. Dairy Data. Milk cows and production by State and Region. 8 Jun 2012. <<http://www.ers.usda.gov/data-products/dairy-data.aspx> >

¹¹ Tom R. Overton. "The New York Dairy Industry and Cornell." Lecture. *New York State Council on Food Policy*. 20 Jun 2012.

In 2011, there were 5,243 dairy farms in the state, the majority of which were family owned and operated.¹² The dairy industry in New York is the largest contributor of revenue to the agricultural economy in the state. In 2007, the sales of milk and other dairy products were over half the share of the total agricultural sales in NYS, bringing in over \$2.2 billion in sales.¹³ Sixty five percent of NYS dairy production is sold to in-state buyers, mainly milk handlers and processors.¹⁴

Although there is limited county specific data and no farm specific data from government sources, each year Cornell University's Dyson School of Applied Economics produces Dairy Farm Business Summary reports which surveys dairy farms in New York State as well as aggregate related statewide and regional data. The following graphs comprise data from the Western NYS region, which overlaps significantly with the counties in the Finger Lakes REDC. The Western NYS region for the Dairy Farm Business Summaries is composed of Cayuga, Chautauqua, Chemung, Cortland, Erie, Genesee, Livingston, Niagara, Onondaga, Ontario, Orleans, Schuyler, Steuben, Tioga, Tompkins, Wyoming, and Yates counties.¹⁵

The Finger Lakes region has four of the top ten dairy producing counties in New York State including Genesee, Livingston, Ontario, with Wyoming County being the largest.¹⁶ In 2010, there were 145,300 cows

<http://www.nyscfp.org/docs/activities/Tom%20Overton_%20New-York-Dairy-Industry-and-Cornell.pdf>.

¹² Maynard Miran and David Delcogliano. 2011 "New York State Dairy Statistics 2011." Rep. Albany: New York State Department of Agriculture and Markets.

¹³ Maynard Miran and David Delcogliano

¹⁴ Nelson Bills. December 2001. "Agriculture-Based Economic Development: Trends and Prospects for New York."

<http://dyson.cornell.edu/outreach/extensionpdf/2001/Cornell_AEM_eb0118p1.pdf >

¹⁵ For purposes of this study we include data from the Western New York Region. Data collected from the Dairy Farm Business Summaries does not segregate by county.

¹⁶ NYS Department of Agriculture and Markets, Division of Milk Control and Dairy Services. New York State Dairy Statistics 2011 Annual Summary. 14 Jun 2012 <<http://www.agriculture.ny.gov/DI/NYSAnnStat2011.pdf> > The other six counties are Cayuga, St. Lawrence, Jefferson, Lewis, Onondaga and Oneida.

that yielded 3.28 billion pounds of milk in the Finger Lakes region.¹⁷ Also in 2010 the average Western NYS dairy farm sold 30,000 more hundredweight (cwt) than the average New York State dairy farms in other parts of the state.¹⁸ (Figure 1.2)

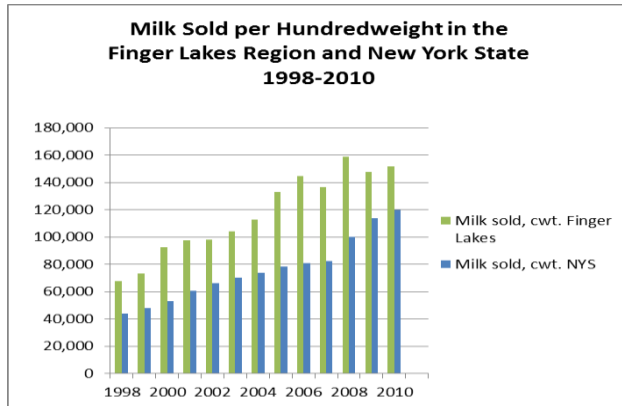


Figure 1.2 Dairy Farm Business Summaries

Because of their size and efficiency, the net profits of Western NY Dairy farms tend to be significantly higher than the New York average. (Figure 1.3)

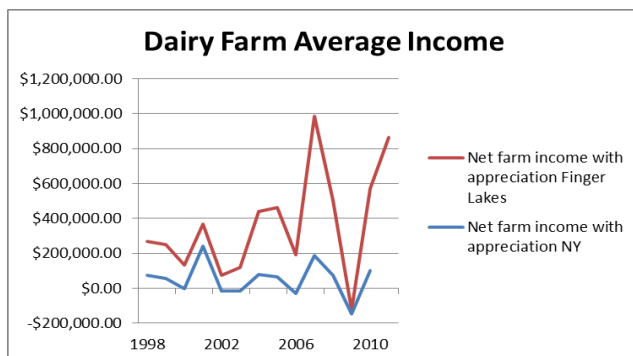


Figure 1.3 Dairy Farm Business Summaries

Farms in the Finger Lakes perform better financially than others in the state for a number of reasons. The average size of dairy farms in Western NY is larger than those in other parts of New York State. Larger farms have lower labor costs per unit of production, lower feed costs because of discounts from larger purchases and higher milk production.¹⁹(Figure 1.4)

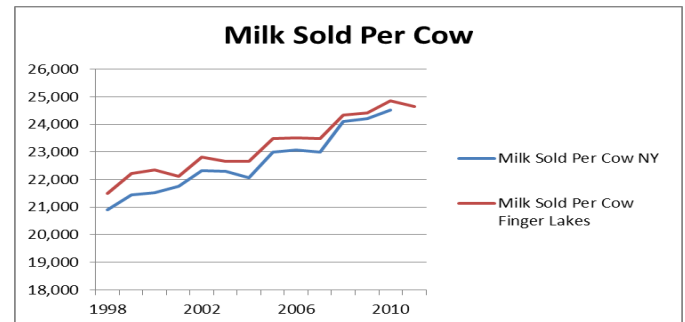


Figure 1.4 Dairy Farm Business Summary

The Dairy Farm Economic Multiplier in the Finger Lakes Region

According to a Cornell University study, the dairy economic multiplier for output is 1.67. This means that for every dollar in dairy farm sales \$0.67 in economic activity is created beyond the farm gate. The jobs multiplier is 1.4 for dairy farms. This translates to 0.4 jobs are created off the farm for each new farm job.²⁰ Hence, jobs on Finger Lakes dairies allow for economic growth in other businesses in the region. There are 3,230 people estimated to be employed on dairies across the region. An additional 1,290 people are estimated to be employed in the dairy output sector. Therefore, there are an estimated 4,520 jobs related to dairy farming and processing across the nine county Finger Lakes Regional Economic Development Council region. Milk sales are nearly \$600 million across the region resulting in total economic activity from dairy of \$985 million.

USDA NASS. "MILK: Cows and Production by County, 2009-2010" (New York State) 9 Jul. 2012.
<http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/County_Estimates/2011/2011%20page88%20-%20Milk%20County%20Estimates.pdf>

¹⁷ USDA NASS. "MILK: Cows and Production by County, 2009-2010" (New York State)

¹⁸ Hundredweight is defined as 100 lbs.

Cornell University Cooperative Extension Dairy Farm Business Summary (DFBS) Western New York report 2010

¹⁹ Dairy Farm Business Summaries

²⁰T.M. Schmit and N.L. Bills. September 2012. "Agriculture-Based Economic Development in NYS: Trends and Prospects." Cornell University. 14 Nov.2012
<<http://dyson.cornell.edu/outreach/extensionpdf/2012/Cornell-Dyson-eb1211.pdf>>

Growth of the Dairy Processing Sector

The number of dairy processors has increased to respond to the high level of milk produced in the New York State. As noted previously the number of dairy processing plants more than doubled from 2001 to 2011.²¹ More recently a number of these processors opened in the state to manufacture yogurt. Yogurt production also has more than doubled from 2005-2011 years.²²

Most notably Chobani opened a plant in Norwich, NY in 2005 and now employs 1,200 people and is in the process of expansion.²³ Fage Greek Yogurt opened a plant in Johnstown in 2008 and currently employs 240 people with plans to add 150 more jobs.²⁴ Economic and employment gains in dairy manufacturing are particularly important to the Finger Lakes regional economy because dairy processing has the highest economic multiplier in the state.²⁵ Cornell researchers estimate that dairy processors have a 5.72 economic multiplier effect, meaning for every job in dairy processing, 4.72 jobs in other industries are created.²⁶ Furthermore, dairy processing is shown to generate an additional \$1.26 for the surrounding community for each \$1 of product sold.²⁷

Therefore, government officials and economic development staff are keen to find ways to attract dairy processing jobs and sales to New York State. The Genesee Valley Agri-Business Park in Batavia is the host of two new plants. Officials are hoping that the Muller Quaker Dairy plant, a joint venture of the Theo Muller Group and Pepsi Co., and the Alpina Foods

plant will help to revitalize the Finger Lakes region. Both Alpina Foods and Muller Quaker chose to locate their plants near Batavia, NY because of: the local high quality milk supply; access to consumers throughout the highly populated Northeast; availability of transportation from the plants; a shovel ready building site; and, a sufficient and available workforce.

The Alpina Foods plant is 42,000 square-feet and employs 50 people with plans to hire more workers.²⁸ In our research with yogurt producers, a representative of Alpina stated that all of the employees live within 30 miles of the Alpina Foods factory. The company says it will be working with and buying milk from only New York State dairy farmers and the Upstate Niagara Cooperative.²⁹ Presently Alpina is receiving its daily milk supply, approximately 20,000 gallons, from New York State farms within a one hundred mile radius.³⁰ The plant is shipping its yogurt to Chicago, New England, Philadelphia, Pittsburgh, and Washington D.C.³¹ Alpina searched for local fruit suppliers and the closest is in Philadelphia, PA.³² At the Cornell Yogurt Forum, Alpina also mentioned that New York State has more to offer than milk and they are trying to keep as much local as possible from construction materials to honey. Alpina's spokesperson stated the only challenge Alpina sees for production so far is a lack of factory space. Milk supply is not yet an issue for the yogurt plant that opened in September 2012 and company representatives stated that dairy farm labor was not part of their considerations.³³

²¹ Maynard Miran and David Delcogliano

²² New York State Department of Labor

²³ New York State Department of Labor

²⁴ William Neuman. January 2012. "Greek Yogurt a Boon for New York State." New York Times. 19 Jun. 2012.

<http://www.nytimes.com/2012/01/13/business/demand-for-greek-style-helps-form-a-yogurt-cluster-in-new-york.html?pagewanted=all&_r=0>

²⁵ Jessica Ziehm. 2010. "Commissioner Hooker Recognizes June as Dairy Month." Agricultural News. Albany, NY: New York State Department of Agriculture. 12 Jul .2012.

<<http://www.agriculture.ny.gov/AD/release.asp?ReleaseID=1896> 11 Jul. 2012.>

²⁶ New York State Department of Labor

²⁷ Jessica Ziehm. 2010. "Commissioner Hooker Recognizes June as Dairy Month."

²⁸Deborah Jeanne Sergeant. 14 Jan 2012."Colombian Yogurt Maker has Big Plans for New York." Lancaster Farming. 18 Jun2012.

<<http://lanasterfarming.com/news/northeedition/Colombian-Yogurt-Maker-Has-Big-Plans-for-New-York->>/Roger Parkhurst. U.S. Director of Operations. Alpina Foods. Survey. 27 Feb. 2013

²⁹ Roger Parkhurst

³⁰ Haley Viccaro. 24 Mar 2013 "Growing yogurt industry drawn to quality of milk produced". Rochester Democrat and Chronicle. 25 Mar 2013.

<<http://www.democratandchronicle.com/article/20130324/NEWS01/303240052/Growing-yogurt-companies-drawn-quality-milk-produced> >

³¹ Haley Viccaro

³² Roger Parkhurst

³³ Roger Parkhurst

The company invested \$15 million to build and equip the plant. In return for their investment, Alpina Foods received tax rebates and incentives equal to approximately 25% of the company's investment. Tax incentives included \$458,346 in property tax exemptions; \$260,000 in sales tax exemptions; \$48,750 in mortgage tax exemptions; and \$288,199 in Excelsior Job Credits.³⁴ Alpina's projected needs for milk are around 50 million lbs. per year. For fiscal year 2013, the plant plans to produce about 16 million lbs. of yogurt.³⁵

The Muller Quaker Dairy plant is a 363,000 square-foot and plans to create approximately 180 full time and part time jobs. Muller Quaker is the largest manufacturing operation to locate in Genesee County in the past 50 years.³⁶ The plant is going to be one of the largest yogurt plants in the United States.³⁷ A company spokesperson stated that Muller Quaker hired some of their facility leadership team from the Upstate New York area. For phase 1 of their facility, Muller Quaker plans to obtain the milk from New York State dairies. When we asked Muller Quaker for their projected annual needs for milk they stated that phase 1 will have three high speed yogurt lines.³⁸ Similar to Alpina, Muller Quaker did not consider constraints on area farm labor supply in the region in their decision to locate in Batavia.

³⁴ Geoff Redick. 3 Jun. 2012. "GCEDC Releases Details on Alpina Incentive Package". WBTA AM 1490. 12 Jul. 2012. <<http://wbta.com/LocalNews/tabid/115/articleType/ArticleView/articleId/1223/GCEDC-Releases-Details-on-Alpina-Incentive-Package.aspx>>

³⁵ Roger Parkhurst

³⁶ Howard Owens. 24 Jul. 2012. "Schumer announces \$1million public works investment for ag park." The Batavian. 9 Aug. 2012. <<http://thebatavian.com/howard-owens/schumer-announces-1-million-public-works-investment-ag-park/33028>>

³⁷ Mark Astley. 8 Aug 2012. Dairy Reporter. "Muller Quaker Dairy breaks ground on first US yogurt plant." 10 Aug. 2012. <<http://www.dairyreporter.com/Processing-Packaging/Muller-Quaker-Dairy-breaks-ground-on-first-US-yogurt-plant>>

³⁸ Scott Gilmore. Communications. Muller Quaker Dairy. Survey. 26 Nov. 2012. In response to our request regarding projected milk needs for yogurt production, Muller Quaker was not willing to share this information.

The company invested \$206 million to build and equip the plant, while the state offered 15.3 million in tax credits (\$3.3 million in Excelsior Jobs Program credits, \$1 million from NYS Homes & Community Renewal, \$10 million in NYS Investment Tax Credit, \$1 million investment from the EDA Public Works Program). Genesee County is contributing \$12 million in sales and property tax savings for the plant. Additionally, the USDA spent \$200,000 to build a service road and \$105,000 to upgrade a pump station for the two plants.

³⁹

Yogurt Plant's Influence on the Finger Lakes Region

Alpina Foods and Muller Quaker Dairy, New York State and the federal government have all invested heavily in the new facilities. There are significant discussions related to job creation including plant employment as well as increased employment opportunities at companies who will manufacture supplies and equipment for yogurt processing.⁴⁰ However when analyzing challenges to growth of milk production farmers express concerns about the availability of general laborers for dairy farms.⁴¹ Alpina and Muller Quaker are producers of Greek yogurt which requires three times the amount of milk than required for regular yogurt. When we communicated with representatives of both Alpina and Muller Quaker, they both expressed a commitment to obtaining their milk supply from New York State. Muller Quaker, the larger of the two plants, stated that they will source 100% of their milk supply for Phase I from New York State dairy farms. Alpina stated that all of their milk will come from New York State. State officials, County officials, the Farm Bureau, and Cornell researchers have all stated that New York State dairy farms are currently not producing enough milk to supply the yogurt factories. When the Chobani plant first opened, it planned to purchase milk locally; it started with a five

³⁹ Howard Owens

⁴⁰ Andrea Deckert. 14 Sept. 2012. "Yogurt boom to boost firm's growth." Rochester Business Journal.

⁴¹ Alan Bjerga. 12 Mar. 2013. "Lack of Cow Milkmen for Yogurt Drives Immigration Debate." Bloomberg. 12 Mar. 2013. <<http://www.bloomberg.com/news/2013-03-12/lack-of-cow-milkmen-for-yogurt-drives-immigration-debate.html>>

mile radius which it extended to 10 miles, and now purchases milk outside of NYS.⁴²

Possibilities and Challenges for Growing the Dairy Industry

The Chobani Paradox

All of the data discussed above leads one to think there is a great potential for dairy farms in the Finger Lakes to benefit from the “Yogurt Boom”. However, two of the obstacles to increasing milk production are: the federal price regulation structure in place and the dairy cooperative’s role in selling milk to the yogurt factories.

Andrew Novakovic, Cornell Economist, studies what he calls “the Chobani Paradox” extensively. Although yogurt factories are in the heart of dairy production areas, there is a paradoxical relationship between dairy farms and the yogurt factories because of the roles of dairy cooperatives and price regulations. Dairy cooperatives like Dairy Lea and Upstate Niagara Cooperative purchase milk from member farms and then sell it to milk processors. Therefore the milk sold by dairy farms to its cooperative is sold at a lower price than milk sold directly to processors. New York’s situation is further exacerbated by milk being sold at a lower price than milk sold in Wisconsin, the second largest milk producing state. Federal milk marketing orders regulate the minimum price that processors and manufacturers are allowed to pay farmers and cooperatives for their milk for various uses.⁴³ The minimum price guaranteed through the federal milk marketing order allows some farms to sell their milk directly to manufacturers like yogurt factories and be guaranteed the minimum price. Other farms belong to cooperatives that tend to ration supply to their “existing or potential customers.”⁴⁴ They are not the ones who create supply. As Mr. Novakovic states in his paper

⁴² Debra Groom. 22 Jul. 2012. “Greek-style yogurt popularity means going the extra mile to find enough milk to keep up with the demand”. The Post Standard. 27 Jul. 2012. <http://www.syracuse.com/news/index.ssf/2012/07/popularity_of_greek-style_yogu.html>

⁴³ Price is also affected by the type or class of milk a factory needs. Yogurt factories require class II milk and this type of milk receives a lower price than Class I milk or fluid milk.

⁴⁴ Andrew Novakovic. The Chobani Paradox

while “growth maybe an industry goal, it is a firm (business) decision.”⁴⁵ Therefore the decision to increase their supply of milk is up to the dairy farms. Because of price controls from the federal milk marketing order and other obstacles to increasing production, without any price and/or regulatory incentive to increase production, dairy farms in New York State will not increase production in response to the “Yogurt Boom”.

Competition from Other States

Recently Agro Farma, otherwise known as Chobani, decided to expand in Idaho and not in New York because of a lack of milk supply. Idaho is now considered the third largest producer of milk in the country while New York State is a close fourth. One of the reasons why Idaho is able to produce more milk is because land is more affordable than in New York State which makes it easier to expand.⁴⁶

Expense of Expansion

Many of the dairy farm owners interviewed for this report stated that price of land and land availability can make expanding their herd a formidable obstacle. When dairy farm owners buy land they are competing with crop farmers. Expanding their herd requires more land since operations typically require land for: housing herds; growing feed and managing manure. The topic of managing manure was at the forefront of the discussion at Governor Cuomo’s yogurt summit.

If a dairy farm wants to expand their herd beyond 299 cows, they must obtain a permit to show their adherence of the New York State regulations for Concentrated Animal Feeding Operations (CAFO). According to the 2007 Census of Agriculture, approximately 33% of dairy farms had 50-99 cows and approximately 15% of farms had 100 to 199 cows.⁴⁷ Based on these statistics, CAFO regulations could currently affect at least 15% of NYS dairy farms. A dairy farm will typically have to expand their manure storage facilities and lagoons to adhere to these

⁴⁵ Andrew Novakovic

⁴⁶ Andrew Grossman. 26 Jun 2012. Wall Street Journal. Yogurt Boom Leaves Dairy Farms Behind. 26 Sept. 2012. <<http://online.wsj.com/article/SB10001424052702303836404577474723912270102.html>>

⁴⁷ USDA 2007 Census of Agriculture

regulations as well as hire a certified CAFO planner to make the necessary changes on the farm. A hypothetical study conducted by Farm Credit East and Cornell Cooperative Extension analyzed the costs to expand a dairy of 190 cows to 290 cows. In June 2012, they calculated the costs of herd expansion and CAFO compliance to be \$524,500.⁴⁸ The seriousness of this decision to expand requires a careful analysis of market projections.

Price and Availability of Feed

The cost of feeding cows on a dairy farm operation is a considerable portion of the operator's budget. Purchased feed and direct crop expenses equaled 37% of milk receipts in 2011. Most dairy farms grow their forage, corn silage and hay. Those with enough land are able to reduce their grain purchases by growing some of their own corn, grain, and soybeans. However there are labor, fuel and pesticide costs associated with growing these field crops. Those farms with limited land buy their feed at a higher price.

The summer of 2012 drought presented new challenges for dairy farmers who grow their own field crops to feed their cows. Media articles highlighted the serious impact of the drought on farms abilities to grow sufficient crops to feed their herds. As noted some farms slaughtered part of their herds because they were not able to feed them.

Aging of Dairy Producers

The advanced age of most dairy producers combined with dwindling farming interest among youth raises concerns for the NYS dairy industry. Farming is a graying profession. In New York State, the median age for farmers was approximately 53 years old.⁴⁹ Nearly 32 percent of all New York farmers are over the age of

55.⁵⁰ As farm owners age, the decision to invest by buying more cows and land is closely linked to questions regarding future farm management.

Policy makers such as former New York State Representative Hochul recommended recruiting young people by promoting farm work as a career choice in schools. Although she used the term "farm labor", her language emphasized creating farm owners or managers rather than general laborers.⁵¹ However, there do not appear to be sufficient incentives for young people to take on the physical demands, long hours and financial risks of farm ownership.

Farm Bill

Another concern related to the opportunities presented by the "Yogurt Boom" is related to the federal delays in passing a new Farm Bill. The Farm Bill includes funding for the Milk Income Loss Contract (MILC) that many dairy farms in New York depend on. MILC compensates farmers when prices fall below certain levels.⁵² During the fall of 2012, Congress's gridlock on the approval of a farm bill was making many farms anxious, including many smaller farms. Instead of approving a new Farm Bill, Congress extended the 2008 farm bill which extended current MILC rates until September 30, 2013.⁵³ This temporary solution seriously hampers most farms' abilities to invest.

Increased Demand for General Laborers on Dairy Farms

Cornell researcher, Michael Van Amburgh, estimates that production needs to increase by 15% or 100,000

⁴⁸ Farm Credit East and Cornell Pro-Dairy. June 2012. "Financial Implications of a Dairy Farm Expansion – 190 cows to 290 cows." 5 Nov 2012.
<<https://www.farmcrediteast.com/News-and-Events/News/~media/Files/Knowledge%20Exchange/Reports/62012%20FCEast%20ProDairy%20CAFO%20Study.ashx>>

⁴⁹ USDA 2007 Census of Agriculture. 31 Aug 2012.
<<http://quickstats.nass.usda.gov/results/201B1E28-51D8-3CE8-9B17-D6CE8208E4B2>>

⁵⁰ USDA 2007 Census of Agriculture

⁵¹ Howard Owens. The Batavian. 13 Jul.2012. "Farm labor keys discussion at ag roundtable in Batavia sponsored by Kathy Hochul." 20 Jul. 2012. <<http://thebatavian.com/howard-owens/farm-labor-keys-discussion-ag-roundtable-batavia-sponsored-kathy-hochul/32852>>

⁵² Andrew Novakovic. Cornell Economist: Farm Bill failure means predictable 2013 and unknown future. Cornell University Press Office. February 4, 2013.

⁵³ USDA News Release. USDA Announces Important Updates on the Milk Income Loss Contract (MILC) Program Release No. 0032.13. Jan 30, 2013.
<http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=ner&newstype=newsrel&type=detail&item=nr_20130130_rel_0032.html>

cows within five years to satisfy the demand of milk from the yogurt factories.⁵⁴ To meet this increased demand, using the Cornell Dairy Farm Business Summary estimate of 1 worker per 45 cows; dairy farms would need an additional 2,225 workers. Many farm owners are uncertain about the source of additional farmworkers to care for the cows particularly in light of current labor shortages.⁵⁵ Not only do farm owners in New York State express concern regarding an unstable labor force but it is a national concern in the dairy industry.⁵⁶

Trends for Non-Local Labor on Dairy Farms

Cornell Farmworker Program (CFP) interviews with dairy farm owners illustrate widespread concern among farmers about labor stability and availability. Farm owners express great uncertainty about future labor sources and consider limited labor supply a barrier to expansion.

Additional laborers would be required if farmers decide to increase their herd size. In order to expand, farmers would have to take into account increased labor costs. Labor is one of the largest expenses for farmers after feed and livestock. Labor comprises 15.6 % of total annual dairy farm expenses in Western New York.⁵⁷ Many farmers claim they cannot raise wages to attract new workers. Even at higher wages, many Americans are unwilling or unable to commit to the time consuming, time sensitive, remote, and physically demanding work of a dairy farmworker.⁵⁸ New York State is not alone in its struggle to stabilize the dairy farm workforce.

US crop and dairy farms depend heavily on immigrant labor. Although, there is no exact count, the National Agricultural Workers Survey estimates that 53% of

agricultural crop farmworkers are unauthorized immigrants and 82% of crop farmworkers are foreign born.⁵⁹ A study by the National Milk Producers Federation (NMPF) estimates that 50% of farms, which supply over 60% of the nation's milk supply use immigrant labor, primarily from Mexico. The NMPF reports that 41% of overall dairy labor is foreign born with the majority coming from Mexico.⁶⁰ Despite the surveys, the estimates of immigrant labor are not exact. Anecdotal evidence from the American Farm Bureau suggests the number of immigrant laborers is actually much higher.⁶¹

The possibility that this immigrant workforce will become less available concerns many fruit, vegetable and dairy producers across the U.S. National trends indicate that Mexican migration has dropped considerably. In 2011 immigration from Mexico was half the rate of 1991 levels (Figure 2.1).

Annual Immigration from Mexico to the U.S.: 1991-2010
(in thousands)

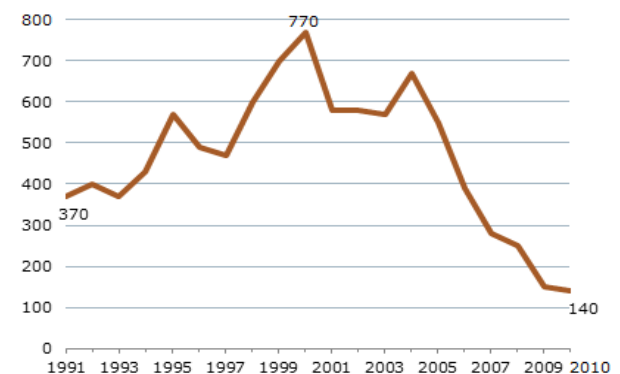


Figure 2.1 Pew Research Center

⁵⁹ US Department of Labor. National Agricultural Workers Survey. 2001-2002. 5 Jun.2012.<<http://www.doleta.gov/agworker/report9/chapter1.cfm#birthplace>>

⁶⁰ Parr Rosson, Flynn Adcock, Dwi Susanto and David Anderson. June 2009. Agri Life Research Texas A&M System. The Economic Impacts of Immigration on U.S. Dairy Farms. 19 Jul. 2012. <<http://www.nmpf.org/files/file/NMPF%20Immigration%20Survey%20Web.pdf>>

⁶¹ American Farm Bureau Federation-Economic Analysis Team (AFBF). Feb 2006. Impact of Migrant Labor Restrictions on the Agriculture Sector. 11 Jul. 2012.<<http://www.fb.org/newsroom/nr/nr2006/02-07-06/labor%20study-feb06.pdf>>

⁵⁴Michael Van Amburgh. Associate Professor. Animal Science. Cornell University. This estimate was made with the assumption that fluid milk prices will continue to drop.

⁵⁵ Alan Bjerga

⁵⁶ Robert A. Smith. Farm Credit East. 4 Oct. 2011.Testimony. Senate Judiciary Committee on Immigration, Border Security and Refugees.

⁵⁷ Cornell University Cooperative Extension Dairy Farm Business Summary (DFBS) New York State 2010.

⁵⁸ Cornell Farmworker Program Interviews

Net migration from Mexico recently reached approximately zero because just as many Mexican immigrants have decided to return to Mexico as new immigrants have successfully come to the U.S. (Figure 2.2).

Five-Year Migration Flows Between the U.S. and Mexico, 1995-2000 and 2005-2010
(in thousands)

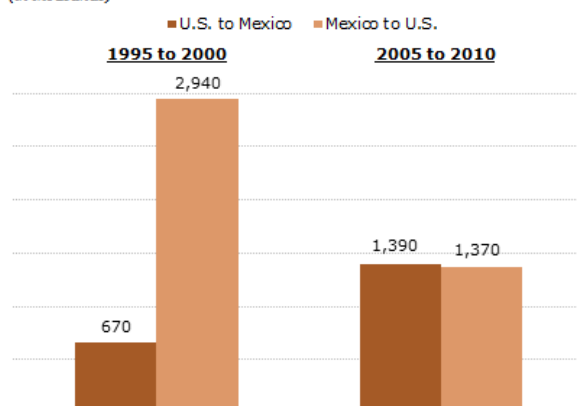


Figure 2.2 Pew Research Center

With the economic crisis in the U.S., increased border and immigration enforcement, and more economic opportunities in Mexico, fewer Mexicans are successfully immigrating or choosing to immigrate. These dynamics affect the workforce that has traditionally worked on dairy farms.

A 2009 national level study, by the National Milk Producers Federation (NMPF) found that 20% of dairy farmers experienced a labor shortage between 2007-2009.⁶² A Farm Credit study suggests that 1,600 farms would go out of business in the Northeast alone if dairy labor needs cannot be met.⁶³

Decreased immigration and increased immigration enforcement has led to a decline in the dairy farm labor pool. Moreover, dairy farmers fear the labor crisis will deepen if legislation requiring E-verify and other

⁶² Parr Rosson, Flynn Adcock, Dwi Susanto and David Anderson.

⁶³ David Natzke. Dairy Business. "Ag groups criticize mandatory e-verify without program to supply farm labor." 27 Jun 2012. < <http://dairybusiness.com/headlines/ag-groups-criticize-mandatory-e-verify-without-program-to-supply-farm-labor?>

enforcement only programs go into effect.⁶⁴ The same 2009 NMPF report ran simulations to assess the national impact that a reduction in immigrant labor would have on milk production. According to the study, a 50% reduction in immigrant labor would result in \$6.7 billion loss in milk sales and would reduce total economic output by \$11.3 billion⁶⁵

The labor shortages and difficulty maintaining a workforce translate into real losses. The American Farm Bureau Federation predicts both short-term and long-term income and production losses in the agricultural sector in New York State if immigrant farm labor was completely eliminated (Figure 2.3). These dramatic losses ranging from \$29.8-\$238.2 million would cripple dairy production in NYS.

Projected Losses in the \$Millions from Labor Shortages - Short-term

State	Production loss Low	Production loss -High	Income Loss Low	Income loss High
New York	\$99.2	\$178.6	\$29.8	\$99.2

Projected Losses in the \$Millions from Labor Shortages -Long-term

State	Production loss Low	Production loss – High	Income Loss low	Income loss High
New York	\$129	\$238.2	\$49.6	\$158.8

Figure 2.3 American Farm Bureau Federation-Economic Analysis Team

In the same report, the American Farm Bureau asserts that dairy would be one of the sectors most affected by the labor restrictions.⁶⁶ New York State is identified as one of the ten states that would most need to address labor shortages.

⁶⁴ David Natzke.

⁶⁵ Parr Rosson, Flynn Adcock, Dwi Susanto and David Anderson.

⁶⁶ American Farm Bureau

The current and potential labor shortages become increasingly important as the state looks to dairy farms to increase milk production. As stated previously, if New York State dairy farms increase their herds by 100,000 that would require 2,225 more workers. Considering farmers are struggling to maintain current labor pools and with restrictive federal labor legislation, such as E-verify, on the table, labor will be a limiting factor in expansion.⁶⁷

In New York State, farmers consistently discuss issues regarding farm labor shortages. In light of this expressed concern, former Congresswoman Hochul, who served on the House Dairy Caucus, hosted agricultural roundtable discussions with farmers throughout the state. At her July 2012 roundtable in Batavia, farmers expressed frustration and concern regarding a shortage of farmworkers.⁶⁸ Farm Credit East, a financial institution that works with farms across the Northeast, published a report in August of 2011 that summarizes the importance of immigrant workers to the agriculture industry in New York State. In their report they state that:

- 1049 New York Farms are highly vulnerable to going out of business or being severely forced to cut back their operations due to a labor shortage caused by an aggressive enforcement only immigration policy
- 10,510 full-time, year-round positions could be eliminated
- 23,685 off-farm jobs in agriculture related businesses throughout the state could be impacted.⁶⁹

Farm Credit East testified before Congress using similar data for the entire Northeast. They make the point that without immigration reform not only would farms who hire immigrant workers would be affected but also processors, truckers and countless other businesses would be affected.

⁶⁷ These concerns were expressed at the Cornell Yogurt Forum

⁶⁸ Howard Owens

⁶⁹ Farm Credit East Knowledge Exchange Report. "Farm Labor and Immigration Enforcement: Economic Impact to New York Agriculture." August 2011

The Dairy Farm Labor Force in the Finger Lakes Region

Farmworkers or general laborers are vital to the continued functioning of New York dairy farms. Below are some general trends regarding the farmworker population. General laborers include: milkers, cow pushers, feeders, assistant herdsman, lead milkers, and those who care for the calves. Typically cows are milked three times a day. Each farm owner determines the work schedules and farmworkers we interviewed worked a range of hours from 8 hour shifts to 12 hour shifts. For purposes of this research, we drew upon observations from interviews with milkers and pushers and some farmworkers who hold positions with greater responsibility.⁷⁰ Many immigrant farmworkers come from agricultural backgrounds. All of the farmworkers included in this study worked on farms with 500 or more milking cows.

These general laborer positions have been filled increasingly by workers of Hispanic origin. To better understand this dynamic CFP research with farm owners examined transitions within the workforce. This research indicates that dairy farms turned to a mostly Hispanic labor force around 2000. In interviews with farm owners they expressed the importance of the presence of Hispanic farmworkers. In one interview, a Finger Lakes dairy farm owner stated that before hiring Hispanic workers the American work force would "hold them hostage" by saying they would quit "if you make us start fore-stripping the cows and things like that. So you accepted mediocrity for fear of not having any labor. And when this new labor force came they were eager to learn...." Before transitioning from a local workforce to an immigrant workforce, employers cited problems with a high turnover, poor work ethic, and employee absences. One employer stated that "between 1995-2000, we hired an average of 37 workers per year to fill 13 positions. Once the Hispanic workers showed up, we have had little or no turnover

⁷⁰ This research was conducted with farmworkers who volunteered to be interviewed. The research utilizes an ethnographic protocol and all researchers were approved for social behavioral studies involving human participants as part of Mary Jo Dudley's research project. CFP analyzes research utilizing Atlas TI. Confidentiality is promised to all research participants and data cannot be released without their consent.

with some workers staying as long as ten years". When farm owners spoke to CFP about the positive side of employing Hispanic farmworkers they mentioned their improved quality of life in knowing they have workers on the farm they can depend on. Although farmers express satisfaction with their current workforce, they are concerned about how long they will remain in agriculture.

There are several trends we have noted among the current farmworker population. Many come from Mexico and Guatemala. The dairy farmworkers we interviewed in the Finger Lakes region are recent arrivals to that region of the state. The majority live in on farm housing and express great hesitancy to leave the farm unless necessary. This is further exacerbated by the undocumented status of some farmworkers. Several farmworkers stated in their interviews that the safest place for them to be was on the farm because of the perceived decreased risk of being detained by law enforcement officials.

Dairy Farmworkers' Economic Impact on the Local Economy

Not only is non-local labor vital to agricultural production and sales, it also impacts the rural economy. Farmworkers live and shop where they work. Where and how farmworkers spend their money can increase employment and income in the region.⁷¹ This research is unique in that we collected data from farmworkers about their earnings; how much they spend locally; and where they shop. We also ask employers to estimate their investment in farmworker housing.

From the financial data we collected from 37 farmworkers, we found dairy farmworkers in the Finger Lakes region contribute to the local economy in the following ways. The bulk of farmworkers consumption

is in the form of supermarket food. The average worker spends approximately 20% of their average net income on food from supermarkets. Farmworkers explained that decisions about where they shop are influenced by transportation, prices, and opportunities to buy non-food items. Most respondents reported spending at Walmart followed by Tops, Price-Chopper, and Aldi's. It is common that farmworkers purchase clothing at Walmart, (5% of their average net income) to avoid paying for transportation to a second location. Some farms provide transportation for their employees. Other farmworkers hire "rideterros", typically unemployed or underemployed local residents that charge \$25-\$50 (about 5% of their average net income) for round trip transportation from the farm to the commercial district. Farmworkers also purchase goods from individuals who come to the farms bi-weekly to sell Mexican and Guatemalan products, pre-made food, and phone cards (makes up 1.8% of worker's average net income). When workers leave the farm, they not only go food shopping but they may also typically frequent area restaurants. Our surveys showed that workers remit 42.5% of their after-tax income. To send \$1000 to Mexico farmworkers typically have to spend a \$10-\$12 fee for transfers through Western Union or other transfer services. The majority of the farmworkers we surveyed were males who did not have wives or children in the U.S. Only six of the farmworkers we interviewed had spouses and children living with them or close by. Those with spouses and children tended to spend more of their income on supermarket food, prepared food, clothes, and school supplies. These workers also tended to send less of their earnings to family in their countries of origin.

⁷¹ Researchers in Wisconsin, Michigan and Virginia produced reports on the economic impact of migrant workers in these states. The University of Wisconsin published a report on the tasks, shifts, wages, and benefits of dairy farmworkers in Wisconsin. Thomas Maloney and Nelson Bills wrote a report in 2011 entitled the "Survey of New York Dairy Farm Employers 2009" which includes data on the salaries of dairy farmworkers and number of hours worked.

Farmworker Average Monthly Income & Costs

Monthly Salary	\$2,094.33
Monthly Salary After Taxes	\$1,867.57
Hours Worked per week	65.84
Hourly Wage	\$8.13
Rent	\$20.29
Utilities	\$5.14
Food	\$368.86
Phone	\$48.94
International Phone Cards	\$10.27
Clothes	\$93.17
Transportation	\$87.15
Entertainment	\$19.92
Prepared food	\$13.67
Mexican groceries	\$9.33
Other	\$46.35
Total expenses	\$654.50
Money sent home	\$819.64
Savings	\$393.43

Figure 3.1 Cornell Farmworker Program

Barriers to Shopping and Banking Locally

The majority of farmworkers surveyed cited transportation limitations as a major barrier to shopping when and where they want. Unauthorized farmworkers do not generally have drivers' licenses and must depend on employers, friends, or locals for transportation (rideterros). Taking time off the farm is also a concern. Each time unauthorized farmworkers leave the farm, they are taking a risk of being detained by law enforcement. Many farmworkers report that they go shopping only twice a month. Transportation is typically to one-stop shops, such as Walmart. Another barrier to shopping locally is limited knowledge. Many farmworkers are not aware of closer stores in town. Finally, farmworkers report that local institutions do not have the services available that farmworkers need. This is most true of local banks and credit unions that do not have the capacity to send money to Mexico and Guatemala.

Use of Public Services

While there is a public perception that immigrant farmworkers heavily utilize public services, our research highlights that very few use public services. Farmworkers tend to receive medical care provided by federally funded migrant healthcare programs instead of going to hospitals. There is also a widespread perception that unauthorized workers seek care at hospital emergency rooms. In our surveys only one farmworker went to a hospital emergency room. When asked about medical care for their employees some farmers stated that in the case of an urgent medical issue farm owners take employees to local clinics and pay expenses at the time of service. Only one worker who has children that are U.S. citizens reported receiving food stamps. Only U.S. born children attended public schools.

Farmworkers' Contributions to Tax Revenue and Social Security

Even though very few of the farmworkers we interviewed use public services, all of the farmworkers had taxes deducted from their pay checks and contribute taxes in other ways. All workers had payroll taxes deducted from their wages. They are completely ineligible from being reimbursed or collecting on these payments to the state which averaged \$3,343 per worker.⁷² In addition to FICA taxes, employers must also pay both state and federal unemployment insurance taxes. We estimate that New York State collects \$1,030 per worker annually.⁷³ Annual federal contributions per worker are estimated at \$528.

⁷² These tax contributions were calculated with the 13.3% FICA tax imposed on employees and employers for 2011-12. If the temporary tax cuts were to expire this number would be 15.3%

⁷³ We did not collect much data from farm owners regarding state unemployment insurance. We estimated the state unemployment insurance contribution percent on the New Employer Rate. We assume that owners pay on time and that percent is deducted from there federal contribution (6.2%-4.1%).

Dairy Farmworker's Annual Estimated Tax Contributions

	Per worker
Total tax revenues	\$6,071
Total federal tax revenues	\$3,900
Total local tax revenues	\$1,698
Federal payroll tax revenues	\$473
State unemployment insurance revenue	\$3,343
State sales tax revenue	\$628
Federal unemployment insurance revenue	\$528
Local property tax revenue	\$435
Local cellphone tax revenue	\$46
State cellphone tax revenue	\$32
Federal cellphone tax revenue	\$29

Figure 3.2 Cornell Farmworker Program

Over 90% of workers surveyed live in housing paid for by their employers. One worker lived off site and three paid rent to their employers. Using this information we estimated local property tax revenues with employer and workers' contributions at an average of \$435 annually per worker.⁷⁴ Total worker contributions to tax payments are estimated at \$6,071 per individual.

Results from Farm Owner Interviews/ Surveys

In addition to wages employers provide other economic support to farmworkers. Many farm owners provide housing. To gain insights on the value of these in kind contributions, the Cornell Farmworker Program (CFP) surveyed owners about how much they spend

on housing and transportation. Larger farms tend to employ more immigrant workers and therefore spend more on housing. From the nine farms that CFP interviewed the average cost on maintaining housing was \$3,732 per worker per year. After the first few years of transporting immigrant workers to town, most immigrant workers now find and pay for their own rides to do their errands. For the farms that do provide transportation, farmers estimate that "in kind" contributions for transportation can be valued at \$50-\$100 per round trip taking into account the driver's time (\$1200-\$9600 a year). Other expenses related to the employment of primarily Spanish speaking workers are for hiring interpreters for trainings and important farm meetings.

The Cornell Cooperative Extension's NWN Dairy Livestock and Field Crops Team contacted 16 farms in the Finger Lakes region to gather more in depth information to augment data collected for annual farm business surveys. After repeated requests from the dairy team only four responded with complete information. Due to the uncertain immigration status of Hispanic workers employers appeared reluctant to divulge information about the ethnicity of their workforce.⁷⁵ Unfortunately, this is not enough farms to draw any industry wide conclusions.

However, this information does provide four case studies of the economic impact of Hispanic workers on dairy farm businesses in 2012. Two of the farms that responded had more than 1000 cows and two had less than 600 cows. The smaller farms generated \$17.00 in milk sales for each dollar spent on Hispanic wages. The larger farms generated \$13.00 in milk sales for each dollar spent on Hispanic wages. Collectively, 50 Hispanic workers made up about 60% of the workforce on these four farms. All of these farms but one employed more Hispanic workers than other workers in 2012.

Cost of housing ranged from \$0 to almost \$2,000 per worker annually for each of the four farms. Each situation was extremely different. The cost of benefits

⁷⁴ This number was calculated by taking the median property tax for Livingston, Wyoming, and Genesee counties, and dividing it by six based on the estimated number of workers we observed living in the farmworker housing.
<http://rocdocs.democratandchronicle.com/map/property-taxes-new-york-state>

⁷⁵ Previous research conducted by the Cornell Farmworker Program (CFP) through the "farmworker needs assessment" highlights the high prevalence of farmworkers of Mexican and Guatemalan origin on dairy farms in the Finger Lakes region.

such as workers compensation, unemployment insurance, the farm's share of social security and Medicare taxes for Hispanic workers consume an additional 1% of milk revenue in aggregate for the case study farms.

When you look at the aggregate impact of these four case studies on the economy of Western New York, it can be determined by applying economic multipliers for output and employment that they generate \$24.2 million of economic activity in the region. From an employment perspective, 0.4 off farm jobs are created for every on farm job. Therefore, the 50 Hispanic workers on these farms create 20 additional jobs beyond the farm gate. When coupled with the total workforce on these farms, 80 people, yields 32 more jobs in the surrounding area. This means four farm businesses are generating \$24.2 million in economic activity and generate total employment of 112 people. In addition to tax payments social security is deducted from all pay checks and unauthorized workers cannot access these funds. These payments illustrate generally invisible contributions of unauthorized dairy workers to federal, state, and local governments.

Workplace Satisfaction

The Cornell Farmworker Program is conducting research on creating a positive work environment on farms in New York State. Addressing the concerns of farmworkers will positively contribute to farm labor stability. Although this research is still underway some initial observations point to commonalities on both small and large dairy farms.

For example when we surveyed farmworkers about what they need to create a more positive workplace they highlighted: more opportunities to improve their English; increasing the frequency, quantity and quality of communication with farm owners; and most importantly to have proper work authorization. Out of all of these farmworkers emphasize that proper documentation would be most helpful to their quality of life and would lead to greater workplace satisfaction.

Although many of the dairy farmworkers have been working in the U.S. for several years, they self-identify as speaking little or no English. They attribute this to be a result of long working hours resulting in not having the time or energy to learn English. However farmworkers noted that improved English language

skills would improve communication with English speaking co-workers and would likely increase their chances of promotion.

Among the reasons why farmworkers seek employment elsewhere is related to the quality of their housing. Other workers mentioned the desire to have more direct communication with the owner. When asked what support could be provided for them to stay at their current job most stated that if they could get proper documentation they would prolong their stay.

Social isolation also has a negative impact on their quality of life. Farmworkers' experiences off the farms are mostly limited to trips to grocery stores and restaurants. While some attend church or play soccer off the farm, others are afraid to leave the farm or do not have the time or energy.

Recommendations

There are opportunities to address the needs of the current farmworker population at local state and federal levels. First and foremost farm specific changes can lead to greater satisfaction at the workplace. One of the results of CFP research on workplace satisfaction will be a guide for employers with step by step information based on research results and the CFP will develop farm specific plans with interested employers.

Local Businesses and Other Local Programs

At the local level, employers can work with farmworker support agencies to address the needs that farmworkers specified including English as a Second Language, transportation, and increasing banking opportunities. Local governments and businesses can take steps to improve the quality of life for farmworkers and encourage farmworkers to spend locally. To overcome transportation barriers, counties can provide shuttles similar to that in Livingston County called the Livingston Area Transportation Service (LATS). This has the potential to allow farmworkers more freedom, to diminish their dependence on others for rides and to decrease their transportation cost. However, it is important to engage farmworkers in a discussion about how to structure the program to meet their needs and to alleviate their concerns about law enforcement involvement in the program.

From the data we collected on farmworkers spending patterns, we can conclude that farmworkers do have an impact on the regional economy and local businesses could do more to take advantage of this impact. Farmworker service providers and support agencies could assist regional planners in making information available to farmworkers about local businesses and services. Cornell Cooperative Extension, Geneseo Migrant Center, local chambers of commerce and businesses could collaborate to educate farmworkers about the local shops and services. Some farmworkers stated they go to Walmart because they can find Mexican products there. If businesses provide products and services that cater to this population, they may find a new market. Some banks are exploring opportunities the banking needs of immigrant workers.

Federal Immigration Reform

We are writing this report at a time when our President and Congress are debating immigration reform. Congress is considering a pathway to citizenship for the 11 million undocumented immigrants that are already here. Our federal elected officials are also debating a guest worker program to continue the supply of labor needed for agriculture and other low skilled work.

For the success of agriculture in NYS, the best option would to provide a pathway to citizenship for the farmworkers who have family living with them. For those that have children who are U.S. citizens, a program to regularize the immigration status of unauthorized parents is necessary to avoid family separation.

Many of the workers we interviewed were men living in the US without their families. These farmworkers only want a type of work authorization that would allow them to go back and forth between their country of origin and their jobs in New York.

Serious consideration must be given to an immigration reform approach that will allow successful workers to remain and to provide viable approaches for future labor demands. The current H-2A guest worker program has serious flaws. In U.S. House of Representative's Judiciary Committee hearings on reforming the Federal H2A Agricultural Guestworker Program, Committee Chair Goodlatte described the

current H2A program as being a "costly, time-consuming and flawed program" as well as "slow, bureaucratic, and frustrating."⁷⁶ Should the dairy industry consider a temporary guest worker program, great care should be taken to ensure that the flaws of the current program are eliminated. Additionally, many of the current skilled workers worry that should a guest worker program modeled on the current H2A program be expanded to include dairy farms, they would be forced to return to their home country with no assurances that they would be eligible for a temporary worker visa program. Any future programs should include worker protections in the U.S. and the country of origin.

Bibliography and Appendix can be found on line at:

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