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August 2008

RB 08-01

The New York State Agricultural Immigration and Human Resource Management Issues Study

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PREFACE

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The authors would like to acknowledge the New York State Department of Agriculture and Markets, with support from the New York State Field Office, National Agricultural Statistics Service, U.S. Department of Agriculture for their funding and support of this research.

The authors would like to thank the following individuals for their review of this manuscript and their helpful comments: Stephen Ropel, Director, New York Field Office, USDA, National Agricultural Statistics Service, Jerry White, Professor, Department of AEM, Cornell University, Max Pfeffer, Professor, Department of Development Sociology, Cornell University.

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Abstract

The purpose of this study is to gather information from farm operators regarding agricultural workforce issues in New York agriculture. In the fall of 2007 the USDA-NASS New York field office agreed to add one page of agricultural labor related questions to its annual surveys of the New York fruit, vegetable, dairy and livestock industries. The 1,245 survey responses provide new insights in four key topic areas: the number of farm workers in New York agriculture, attitudes toward labor supply issues, attitudes toward immigration reform and attitudes regarding human resource management practices. The survey procedures allowed estimates of the number of workers on farms primarily involved with fruit, vegetable, dairy or livestock production. The total agricultural workforce for fruit, vegetable and dairies in New York, including part-time, full-time, family and non-family workers totaled 46,800. In addition it was estimated that the number of contract workers hired on New York fruit, vegetable and dairy farms was 6,700.

Farm managers were asked how concerned they were that there may not be sufficient workers to employ in their business over the next three years. Survey respondents expressed considerable concern with more than 60% of the farmers who employed Hispanic workers indicating that they were very concerned about attracting sufficient workers over the next three years.

Survey participants were also asked how important national immigration reform, a path to citizenship and a guest worker program were to their business. Importance was rated on a five point scale with 1 being not important and 5 being very important. Farm operators with Hispanic workers rated national immigration reform a 4.43 in importance. They rated a path to citizenship a 3.34 in importance and a guest worker program a 4.29 in importance. So while all three issues were important to farm managers a path to citizenship was reported to be less important than national immigration reform or a guest worker program.

Respondents were also asked how important they felt five human resource practices were. Again a 5 point scale was used. Respondents placed a higher importance on competitive wages and benefits (3.87), safe comfortable working conditions (4.34) and opportunities for advancement (3.23). They felt that off-site training opportunities and continuing training and development were of slightly less importance.

The survey provides new information about attitudes and concerns of farm employers at a time when labor supply and immigration reform issues are very important to the future of their businesses. These results allow leaders in NY agriculture to more accurately describe current conditions surrounding agricultural labor in the state. The survey also provides a starting point for additional research on immigration and labor supply issues.

Introduction

In recent years, immigration issues across the United States have received much attention from the media, employers, policymakers and the public. Failed attempts by Congress to enact comprehensive immigration reform and increased immigration enforcement activities have heightened concerns over illegal immigration. At the center of the debate is concern over what to do about unauthorized individuals who are living and working in the United States. According to a commonly cited report published by the Pew Hispanic Center, unauthorized individuals are a population estimated to range between 11.5 and 12 million (Passel, 2006). The U.S. farm sector is confronted with a number of farm labor issues, including those associated with unauthorized workers. Farm managers are increasingly concerned about the availability of an adequate workforce to staff farms that operate on both a seasonal and year-round basis.

Currently, discussions about farm labor and the implications of immigration reform on farm and food production largely occur in an information void. Detailed annual descriptions of the farm labor pool are not published by the USDA at state level. The five-year Census of Agriculture helps fill this gap but, to date, this database provides very limited insight into immigration issues and the ethnic composition of the farm labor force. The objective of this study is to expand the information base for New York State in two ways. First, we want to more accurately determine the number of agricultural workers in the fruit, vegetable, dairy and livestock industries in New York State. These farm sectors not only account for a very substantial share of state commodity output but are most influenced by immigration issues and the presence of unauthorized farmworkers. A second objective is to assess farmer attitudes regarding labor supply, immigration and human resource management issues. As the policy debate over immigration and labor supplies continues, information like that requested in this survey becomes increasingly important to inform that discussion.

Survey methodology

The USDA's NASS New York Field Office conducts an annual mail survey of fruit and vegetable growers and livestock producers. It was decided, for survey efforts in the fall and winter of 2007-2008, that a small group of questions on labor use and views on labor policy would be included as an add-on. This survey strategy dictated that the number of questions had to be held to a minimum. We first asked respondents to report on labor use. After reviewing USDA definitions and data conventions (see Appendix III), we designed questions to obtain information on labor use in three dimensions: family status of hired farm labor, number of days worked during calendar 2007, and ethnicity. For the latter, we asked respondents to indicate how many employed or contract farmworkers were Hispanic. Then, each respondent was asked a small number of questions dealing with attitudes and opinions regarding labor availability, immigration policy as it affects access to a Hispanic workforce, and steps managers might take to maintain or upgrade their human resource development strategies. We are not aware of any other efforts to engage farm operators in this exact line of questioning. Instead, we relied on anecdotal

experience and previous extension/outreach efforts to inform the questionnaire design. The survey add-on questionnaire is shown in Appendix IV.

This survey is the first of its kind in New York State. However, labor availability and circumstances surrounding employment of immigrant workers is a recurrent issue. Several studies have supplied data or analyses on farm labor issues and how they affect farm businesses and, ultimately, the larger rural community. A recent New York State study used personal interviews to obtain detailed information on Hispanic employment and employment practices in the New York State dairy industry (Maloney and Grusenmeyer, 2005). Several additional studies have centered on the New York State immigrant/migrant population and attendant policy issues (Parra and Pfeffer, 2006; Pfeffer, 2008; Pfeffer and Parra, 2004; Pfeffer and Parra, 2005a; Pfeffer and Parra, 2005b; Pfeffer and Parra, 2008a; Pfeffer and Parra, 2008b). Looking at other states, the USDA-NASS Wisconsin Field office surveyed about 3,000 dairy farm operators in 2007, focusing on structural features of the Wisconsin dairy industry and issues confronting dairy producers (USDA-NASS, 2008c). Those survey results included an estimate of the number of hired, nonfamily workers on Wisconsin dairy farms and the fraction categorized as Hispanic. Analysts in Washington State access farm level survey results that allow them to generate extensive data on farm employment, including seasonal labor use in the State's fruit commodities sectors (Stromsdorfer et al, 2008).

Analysis of Hispanic farm employment at state level is in sharp contrast to USDA survey/Census efforts. The USDA publishes results from an ongoing Farm Labor Survey (USDA-NASS, 2008a), but that survey does not deal with management or policy, and the design provides multistate rather than state-level estimates of labor use and practice on farms. USDA-NASS regularly collaborates with the Economic Research Service (ERS), and conducts an annual Agricultural Management Survey (ARMS). But, despite the hopeful survey title, the ARMS does not query farm operators on labor management issues.

Similarly, USDA-ERS does not gather data on the number of farm workers with the ARMS each year. Instead, USDA-ERS analysis and commentary on farm labor is largely based on the annual Current Population Survey (CPS). Results from the CPS are only reported at the national level¹.

The Federal government has conducted a periodic Census of Agriculture since the late 1800s. Presently, responsibility for the Census is with the USDA, conducted at 5-year intervals; the last Census was for 2002 and analysis of 2007 Census results is underway (USDA-NASS, 2008b). The Census provides some county-level information on hired farmworkers, including migrant workers and additional detail at state level.

¹ ERS treatment of farm labor issues is highlighted on their Internet website at: <http://www.ers.usda.gov/Briefing/LaborAndEducation/FarmLabor.htm>

The data sources highlighted above are described for interested readers in Appendix II. This Appendix also describes the data and procedures used in the widely cited and discussed reports published by the Pew Hispanic Center (Passel, 2006). A close reading of Appendix II will show that all of these sources are valuable but do not interweave in ways that show a complete farm labor picture, especially at the state and sub-state level. Many questions on farm labor use are unanswered, meaning that numerous debates and policy discussions about farm labor are not data-driven or fact based. As a result, opportunities to fine tune or even craft an educational message tailored to the needs of New York State farm and food industry are limited as well.

Data providers face several problems when targeting labor use on operating farms. Several structural features for the industry routinely confound efforts to describe, measure, and monitor farm labor use. Most of these features are shared to some degree with the wider small business community, both farm and nonfarm, but their significance seems to loom larger in commodity agriculture. These include: part time occupations and multiple job holding; nontraditional living quarters; seasonal labor requirements; unpaid (family) labor; incentives for under-reporting labor use or expenses.

Recognizing this complexity, it was decided that a short, add-on mail questionnaire could not adequately deal with all these factors with precision. To maintain consistency, however, with existing data sources it seemed important that any questions to size and describe the farm labor complement on each farm surveyed should follow standard USDA definitions and data conventions. The important definitions and data conventions are summarized in Appendix III.

It was decided that questions to give insight into labor use in three dimensions were most essential. These were:

- Use of paid family labor
- Use of contract workers
- Term of employment-over or under 150 days during the reporting year
- Ethnicity, as reflected in number of Hispanic employees or contract workers

We realize that this survey protocol, while in step with definitions and survey procedures used by USDA-NASS, compromises the data gathering effort in other ways. One significant omission is the lack of precision on seasonal work. Distinguishing between workers employed above or below 150 days per year follows procedures used in the Census of Agriculture but does not account for shorter term employment. Spikes in labor use occur around major harvest and crop management cycles on many New York farms. To manage this issue, the USDA Farm Labor survey asks respondents to report the number of workers on the farm during one specific work week. This approach was not used in this survey because of time and space limitations.

As noted above, the survey was an add-on to standing NASS survey commitments. The sample was prepared by the USDA-NYASS NY Field Office from a stratified list of farms in the following categories; fruit, vegetables, dairy and livestock. Simple survey

sizes and response rates are reported in Table 1. Response rates were variable, highly variable, across farm types. Response rates in the livestock sector, including dairy, were particularly disappointing.

Item	Total	Dairy	Other livestock	Vegetables	Fruit
			<u>Number of farms</u>		
Population	16,311	6,591	6,807	1,758	1,155
Survey sample	3,859	1,208	726	770	1,155
Response	1,245	265	133	533	314
			<u>Percent</u>		
Response rate	32.3	21.9	18.3	69.2	27.2

Survey results

The first study objective, an estimate of the number of farm workers on New York State fruit, vegetable, and dairy farms, was accomplished by expanding the sample survey responses to a known statewide farm population. Close examination of the survey data showed that 873 or 70% of the usable survey responses were acceptable for this purpose. In these cases, respondents provided consistent information on hired farm labor, taking into account family status, ethnicity, and duration of employment during calendar 2007. For this subset of survey responses, per farm average number of workers was calculated for each employment category. Then, extension factors were applied to estimate a statewide population total.² This approach was used both for payrolled farm workers and contract workers on farms during calendar 2007.

Results are shown in Tables 2 and 3. Turning first to the largest complement of farm workers, those on payroll, the survey results show that farms in these three sectors average 4.86 workers per farm (Table 2). That average varies materially across farms classified as fruit, vegetables, or dairy with the highest average farm worker number

² Expansion factors were derived from lists of farms as classified by the NASS New York Field Office in the spring of 2007. Farm commodity production lists were reviewed to eliminate duplication and coordinated to assure that growers only receive one survey mailing. For vegetable producers, the survey population represented all known vegetable growers as of October 2007 with more than 4 acres of all types of vegetables. The fruit grower population represented all known growers as of October 2007 with more than four acres of apples or grapes, and all known peach, pear, and plum growers with more than one acre. The dairy farm population represents all known milk producers with more than 10 milk cows.

registered for vegetable farms. When expanded, these three New York commodity sectors are estimated to payroll 46,800 workers. Comparing this result with other published data is problematic. Previous surveys have often been piecemeal because important classes of farm workers were omitted. Most notable is the absence of data on hired family workers. This class of workers is increasingly important over time as farms operate on a larger scale, grow their business by reaching down the product value chain, or both. Our results show that nearly one third of all payrolled workers are family members. That percentage varies by commodity sector, with dairy farms reporting numbers that suggest that roughly 45% of all payrolled workers are members of the farm family.

Seasonality is represented in the expanded survey estimates as well, with 37% of all payrolled farm workers employed for 150 days or less during calendar 2007. As expected, use of seasonal employees is relatively low on dairy farms compared with fruit and vegetable farms. Together, fruit and vegetable farms account for 75% of payrolled nonfamily workers employed 150 days or fewer. This dependence on seasonal workers carries over to the ethnicity dimension of the New York State farm labor force. We estimate that Hispanics make up 23% of all payrolled farm workers in these three commodity sectors. However, that percentage is 37% and 36%, respectively, on operations classified as fruit and vegetable farms. That percentage is 12% in the dairy sector but the statewide estimate suggests that perhaps something approaching one quarter of all nonfamily employees working full-time on New York State dairy farms are Hispanic.

Some New York State farm operations also are dependent on contract workers. These workers come on farms under arrangements made by a third party contracting entity or as individuals who are performing services while functioning as independent contractors. Our expanded survey estimates suggest that New York fruit, vegetable, and dairy farms used a total of 6,700 contract workers during calendar 2007 (Table 3). We estimate that 13% of these contract workers are Hispanic and that over 60% are employed by dairy farm operators.

The contract worker estimates should be interpreted with an extra amount of caution because of the ambiguity surrounding the idea of a service worker. USDA definitions stress workers on the farm under arrangements made with a third party contracting entity (see Appendix III). However, the respondents to this survey received no definitional guidance. It is possible that, especially for the New York State dairy sector, the idea of “contract worker” introduces a new level of misinterpretation because many dairymen routinely buy services to support herd health and production. This means that individuals are on the farm but not payrolled, while providing services as independent contractors. Inclusion of such individuals in survey responses could materially affect the contract worker estimates.

Table 2: Estimated composition of the hired farmworker labor force, based on 873 responses with complete information on worker status

Item	Total	Fruit	Vegetables	Dairy
	Average number of hired workers per farm			
Family-150 days or more	1.11	0.58	0.84	1.30
Family-less than 150 days	0.44	0.48	0.60	0.40
Nonfamily-150 days or more	1.90	1.80	3.32	1.72
Nonfamily-less than 150 days	1.41	3.94	2.95	0.48
Total	4.86	6.80	7.71	3.90
	Estimated number of hired farm workers			
Family-150 days or more	10,700	700	1,500	8,500
Family-less than 150 days	4,400	600	1,100	2,700
Nonfamily-150 days or more	18,900	2,100	5,800	11,000
Nonfamily-less than 150 days	12,800	4,500	5,200	3,100
Total	46,800	7,900	13,600	25,300
	Percent Hispanic			
Family-150 days or more	a/	a/	a/	a/
Family-less than 150 days	a/	a/	a/	a/
Nonfamily-150 days or more	31	37	48	24
Nonfamily-less than 150 days	36	47	40	9
Total	23	37	36	12
a/ Under 5%				

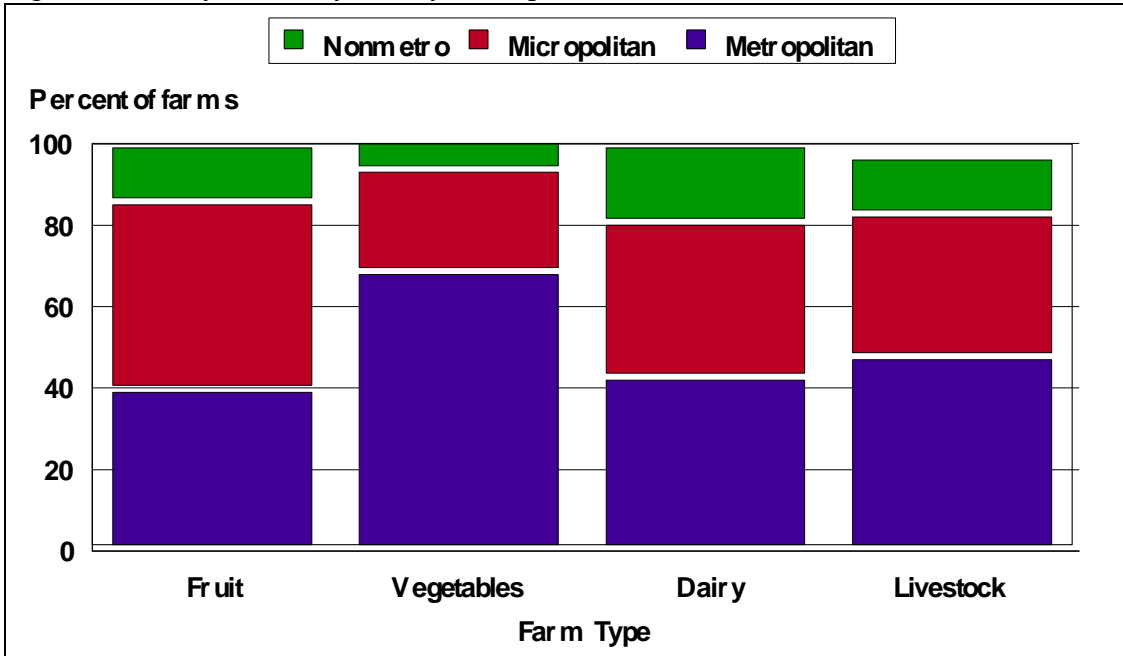
Table 3: Estimated number of contract workers, based on 873 responses with complete information on worker status

Item	Total	Fruit	Vegetables	Dairy
	Average number of contract workers per farm			
Number	0.70	1.65	0.33	0.64
	Estimated number of contract farm workers			
Total	6,700	1,900	600	4,200
Percent Hispanic	13%	30%	16%	a/
a/ Under 5%				

Turning to the full survey sample results and descriptions of farm labor use, we once again arranged the survey data by farm type and assembled cross tabulations to account for geographic location, size of farm labor force, and status with respect to employment of Hispanic farmworkers. Geographic location was taken into account by identifying farm location based on county level metropolitan status. Metro and nonmetro status is a conventional way to describe important differences in population settlement patterns and attendant environmental conditions for farm commodity production. Counties designated as metropolitan have urban cores with a population of 50,000 or more; other counties are designated as “micropolitan” because the county contains an urban core with a population greater than 10,000 but less than 50,000; nonmetropolitan counties contain urban population concentrations under 10,000.

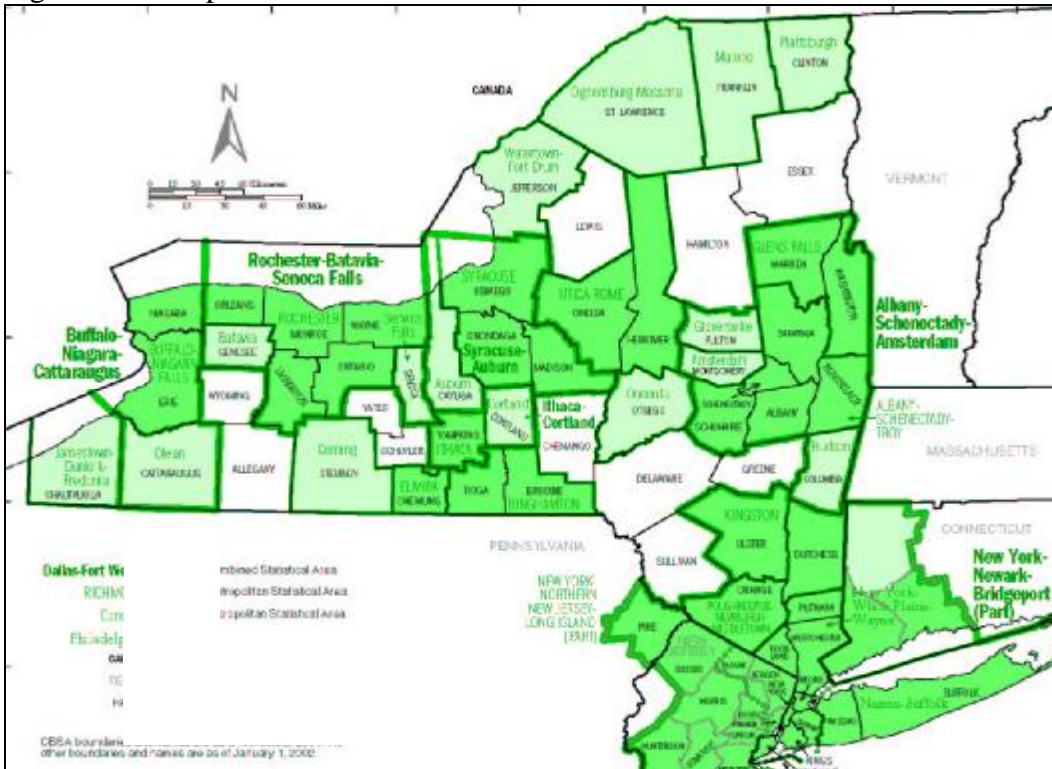
Because of New York's long lived urban settlement pattern, a large share of New York's total land area is classified as metropolitan or micropolitan (Figure 2). The largest percentage of sampled farms following counties classified as metropolitan by the US Census Bureau. The fraction classified as metropolitan is particularly large for New York State vegetable farms, with nearly 70% falling in that category; fruit farms are also impacted by proximity to urban population concentrations. These patterns largely mirror national trends, where increasingly, high value vegetable and fruit production is concentrated in urban territory (Bills et al, 2006).

Figure 1. Survey results by county metropolitan status



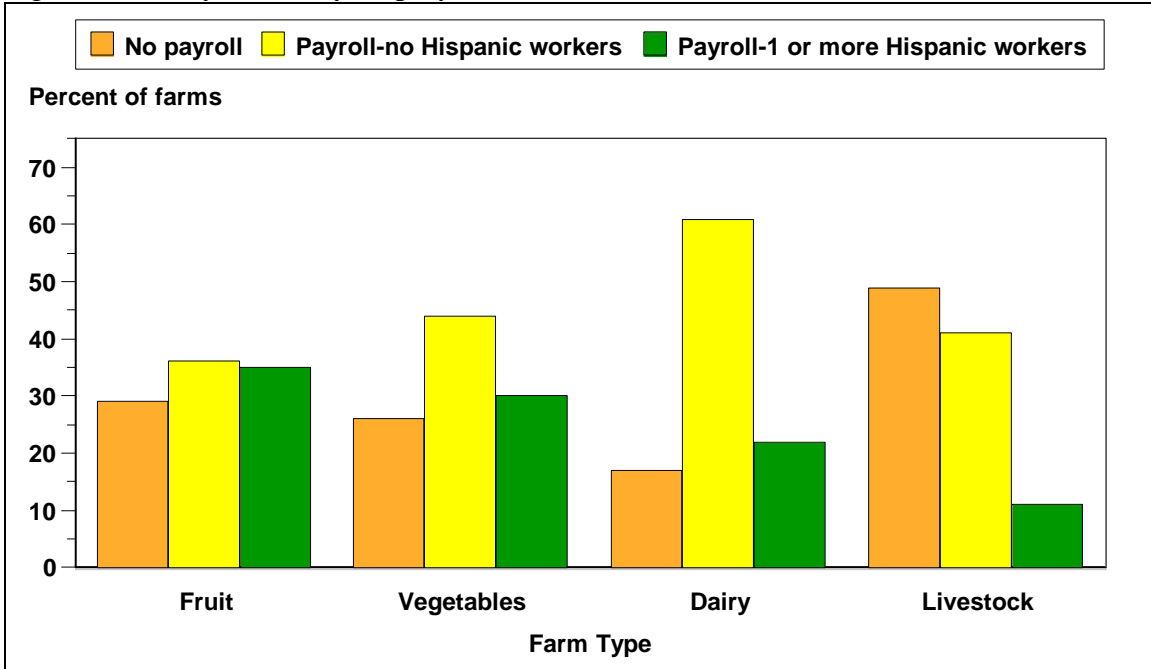
Source: Appendix I, Table 4.

Figure 2. Metropolitan status of counties in New York State



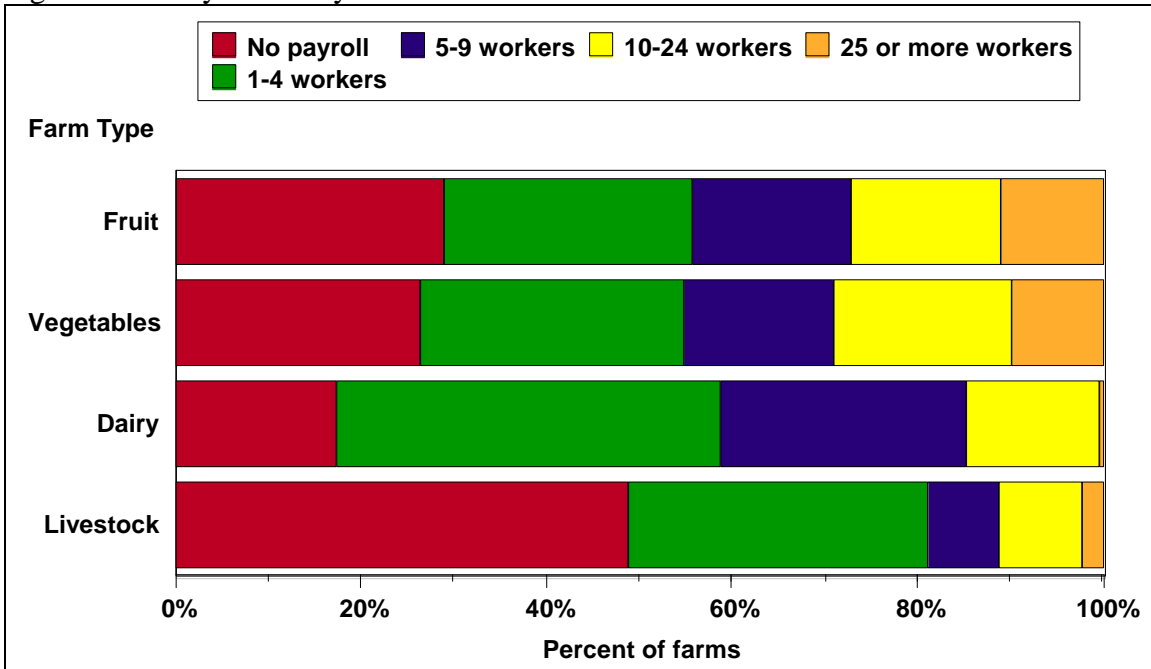
Source: US Census Bureau

Figure 3. Survey results by employer status



Source: Appendix I, Table 5.

Figure 4. Survey results by number of hired farm workers



Source: Appendix 1, Table 6.

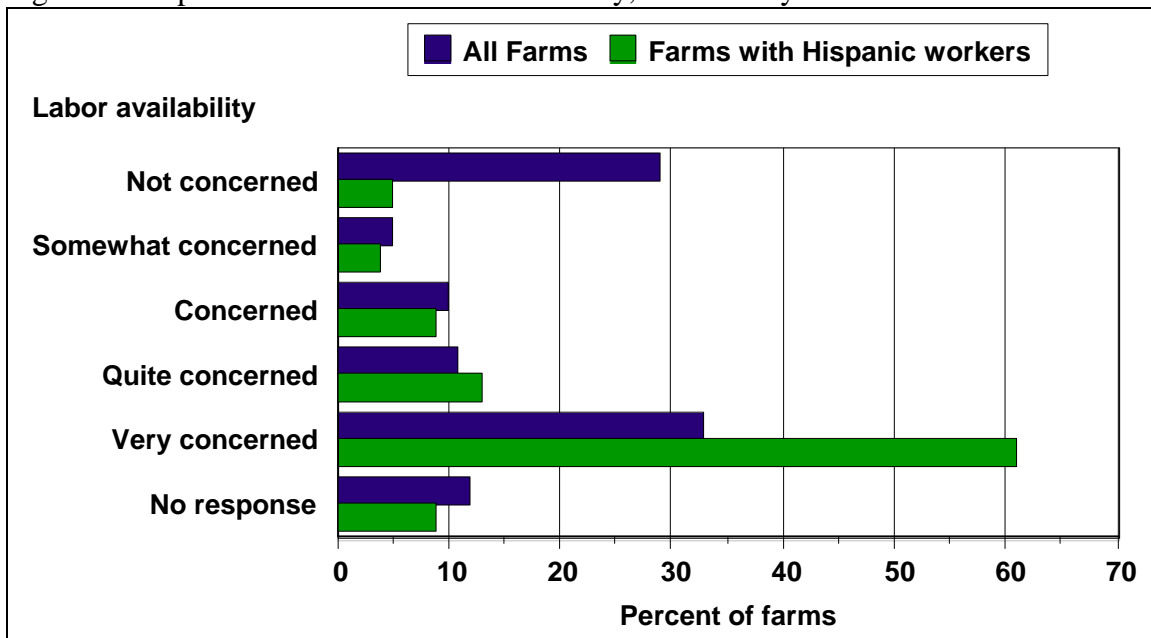
Employer Status

Results are reported by agricultural enterprises and three aspects of employer status including; a) employers with no payroll, b) employers with a payroll-no Hispanics, c) employers with a payroll and one or more Hispanic workers (Figure 3). Most other agricultural labor surveys would likely not include employers who have no payroll. However since this survey was an add-on to four New York agricultural surveys, farms with no payroll were part of the sample and are included in the survey results. Dairy had the lowest percent of farms with no payroll and livestock had the highest percent of farms with no payroll. It is noteworthy that the dairy industry had a far higher percentage of farms with payroll and no Hispanic workers than any of other industries represented. In terms of the Hispanic workforce, fruit farm owners had the highest percent of Hispanic workers followed by vegetables, dairy and livestock.

Number of Hired Farm Workers

The survey results also show that most New York State farms payroll relatively few workers (Figure 4). Farms that hire between 1-24 workers predominated, with dairy having the greatest number of farms hiring between 1-24 workers followed by vegetables, fruit and livestock.

Figure 5. Respondent views on labor availability, next three years



Source: Appendix 1, Table 7.

Labor Supplies

The survey revealed that in general New York farm owners are concerned about labor supply (Figure 5). Most survey participants indicated that they were concerned that there may not be sufficient workers to employ in their business over the next three years. As expected those farm owners with a payroll and with Hispanic workers expressed greater concern than their counterparts who did not have a payroll. Also, fruit and vegetable growers were more likely to express concern over labor supplies than dairy and livestock producers. A majority of dairy and livestock producers reported no Hispanic workers. It is also interesting to note that a few farms with Hispanic workers indicated that they were not concerned about labor availability over the next three years. A possible explanation for the lack of concern is that the Hispanic workers on these farms may have work visas through the H-2A program.

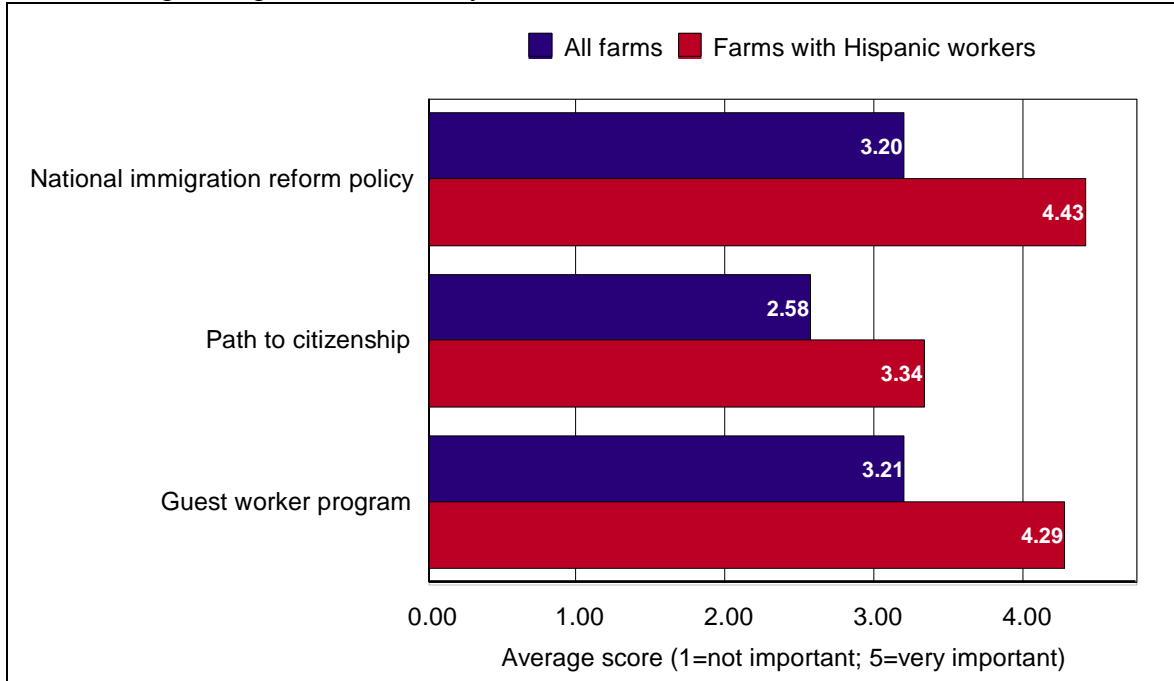
Attitudes on Immigration Reform

Generally speaking, immigration issues were important to most survey respondents (Figure 6). Farm owners were asked how important national immigration policy, a path to citizenship and a guest worker program were to their business. In each case the importance placed on these issues was slightly less among all farms than it was among farms with Hispanic workers as would be expected. Interestingly, in the all farms category and the farms with Hispanic workers category a path to citizenship was rated lower in importance than a national immigration reform policy and a guest worker program. There are likely two reasons for this. First, it is not absolutely necessary for immigrant workers to have a path to citizenship if there is a workable guest worker program in place. Second, public opinion in the U.S. seems to be going against any policy that could be regarded as amnesty and path to citizenship proposals are often regarded as such.

Attitudes on Human Resource Management

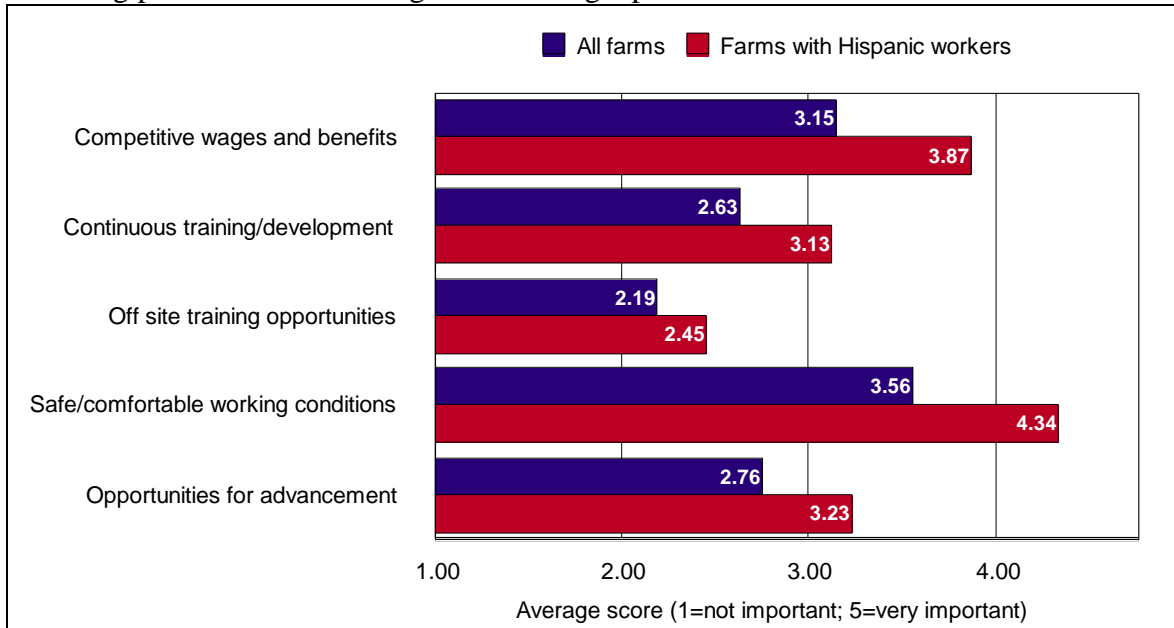
Regarding human resource management issues (Figure 7), survey participants generally indicated that they felt human resource management practices were important to the success of their business. This runs counter to the argument made by some that farm operators give inadequate attention to the needs of their employees. Most employers responding to this survey felt that competitive wages and benefits and safe, comfortable working conditions were very important. Most farm employers surveyed both in the all farms category and the farms with Hispanic workers category felt that competitive wages as well as safe, comfortable working were very important. Less important were continuous training, off site training and advancement opportunities.

Figure 6. Respondent's views on national immigration policy: how important are each of the following immigration issues to your business?



Source: Appendix I, Table 8.

Figure 7. Respondent's views on employment practices: how important are each of the following practices for attracting and retaining a productive workforce?



Source: Appendix I, Table 8.

Discussion

The purpose of this study is to gather information regarding farm worker numbers and farmer attitudes regarding agricultural labor in New York State. Although we were restricted to only a few questions the study makes several important contributions. First, it gives us a better assessment of farm labor numbers in New York including identifying the number of Hispanic workers. Collecting accurate information on a seasonal, transient farm workforce is always challenging. The labor population data contained in this report provides one more frame of reference for those interested in the number of farm workers in New York State. The second part of the survey focused on gathering attitudinal information from farm employers regarding labor supply, immigration reform and human resource practices. Farm managers in this study, especially those who have a payroll or who have Hispanic workers on the payroll, are concerned that they may not have sufficient workers to effectively operate their businesses over the next three years. In addition, farm managers, especially those with Hispanic workers, felt that immigration reform and a guest worker program are very important issues. They also thought that a path to citizenship for unauthorized workers was important but that it was less important than overall immigration reform and a path to citizenship. When asked about the importance of human resource management practices, farm owners in this survey indicated that out of a list of five human resource practices they felt competitive wages and benefits and safe, comfortable working conditions were of top importance. Continuous training, off site training and opportunities for advancement were rated as less important.

This study was an add-on to existing fruit, vegetable, dairy and livestock so it included many employers who do not have a payroll. Their responses are included in the study with the responses of those who do have a payroll. In the previous tables we have reported the attitudinal data in three employment categories; those with no payroll, those with a payroll but no Hispanics and those with at least one Hispanic worker. Attitudes about immigration policy varied depending upon which category an employee was in. As expected, those with Hispanic workers expressed much greater concern over immigration policy issues.

Farm managers must consider both the internal and external environment of the farm business as it relates to agricultural labor supplies and business success. Many of the farm owners surveyed produce fruits and vegetables, perishable crops that must be handled quickly at harvest time. Likewise modern dairies, such as the largest in New York State, also produce a perishable commodity and operate their businesses twenty four hours a day. Farm managers are challenged to attract and retain qualified, motivated workers and face two noteworthy challenges. The first is the ability to attract and retain local workers. The anecdotal evidence since the mid 90's suggests farm managers are increasingly pessimistic about their prospects of attracting local candidates when they advertised farm positions. Further, an allied concern is that the local workers that they did hire often had poor attendance and poor performance. In short, they were having increasing difficulty finding qualified workers interested in production agriculture.

Second, with a transition to a mostly Hispanic workforce, farm managers saw many of their employee performance concerns disappear. Hispanic workers, mainly from Mexico, Guatemala and Central America came with a strong work ethic and experience in agricultural production. They presented their employers with documents indicating they had legal status live and work in the United States. However, over the past ten years, it has become increasingly evident that many of the documents presented to farm employers are not authentic.

After 2005, when the House of Representatives attempted to pass an enforcement oriented piece of legislation, the debate over what to do with unauthorized workers in the United States escalated. The Department of Homeland Security, following directives from the White House and Congress, began to enforce the laws more stringently. Agricultural employers and the news media now report an increase in enforcement activities, detentions and deportations around the state. The result has been concern on the part of some specialty crop growers that they will not have sufficient labor during critical harvest periods to operate their businesses. Dairy farmers are also concerned that they will not have sufficient labor to operate their milking parlors many of which now operate up to twenty four hours a day. Concern over unauthorized workers has led to a great deal of labor insecurity on New York farms. This is the environment in which this study has been conducted and why we have carefully attempted to quantify the number of Hispanic farm workers working on New York farms as well as to gather information to provide a clearer understanding of how concerned agricultural employers are about immigration issues. Survey results suggest that the most important issue on the minds of New York farmers that employ immigrant workers is that there be a mechanism to recruit immigrant employees who hold an authentic work visa.

It is important to note that the labor supply issue has strategic implications for the future of many large New York farms. It is large farms that produce the highest percentage of agricultural production in the state. There are increasing reports that some farm owners are holding off expansion plans and others report that they are considering a change in their crop mix to take advantage of less labor intensive crops. With greater frequency farm managers may change how they do business or stop expanding their business due to an anticipated shortage of labor in the future. Decisions such as these would clearly be a road block to a stable and expanding agricultural industry in New York.

Recommendations for Further Study

While the results of this survey give us valuable information that we did not previously have there is more to be learned. Increasingly farm managers want the public, the media and their elected officials to understand what it takes to operate a modern farm business today and the crucial role that Hispanic immigrants play in business success and profitability. Telling the story can only be accomplished with a research agenda that attempts to further quantify the contribution that workers, especially Hispanic workers, have on New York agriculture and on the economy in general. Many questions remain to be answered. The following research topics should be considered for study in the future.

- 1.) Determine what percent of New York's milk production is produced on farms that employ Hispanic workers.
- 2.) Estimate the amount of Social Security tax paid by Hispanic workers in New York State.
- 3.) Conduct a comprehensive survey of wages, benefits and working conditions on fruit and vegetable and dairy farms in New York State.
- 4.) Estimate the number of guest workers needed in New York agriculture if further immigration reform includes a guest worker program
- 5.) Survey workers to help determine what motivates them and how to keep them in farm positions after immigration reform is passed.

References

Bills, Nelson, B. Gloy, W. Uva, G. White, and M. Cheng. 2006. 2007 Farm Bill: Policy Options and Consequences for Northeast Specialty Crops Industries, Small Farms, and Sustainability Programs. RB 06-04, Department of Applied Economics and Management, Cornell University, May.

Maloney, Thomas R. and David C. Grusenmeyer. 2005. Survey of Hispanic Dairy Workers in New York State, Department of Applied Economics and Management, Cornell University, Ithaca, NY, RB 2005, February.

Maloney, Tom and Nelson Bills. 2008. Farmer Perceptions of Labor Supply and Immigration Reform in New York State. Department of Applied Economics and Management, College of Agriculture and Life Sciences, Cornell University, Paper prepared for the conference on Immigration Reform: Implications for Farmers, Farm Workers, and Communities, Washington, D.C., May.

Parra, Pilar A. and Max J. Pfeffer. 2006. "New Immigrants in Rural Communities: The Challenges of Integration." *Social Text* 88 24 (3):81-98.

Passel, Jeffrey S. 2006. "The Size and Characteristics of the Unauthorized Migrant Population in the U.S." Research Report, Pew Hispanic Center, March 7.

Pfeffer, Max J. 2008. "The Underpinnings of Immigration and the Limits of Immigration Policy." *Cornell International Law Journal* 41(1):83-100.

Pfeffer, Max J. and Pilar A. Parra. 2004. Immigrants and the Community. Development Sociology Department, College of Agriculture and Life Sciences, Cornell University.

Pfeffer, Max J. and Pilar A. Parra. 2005a. Immigrants and the Community: Community Perspectives. Development Sociology Department, College of Agriculture and Life Sciences, Cornell University.

Pfeffer, Max J. and Pilar A. Parra. 2005b. Immigrants and the Community: Former Farmworkers. Development Sociology Department, College of Agriculture and Life Sciences, Cornell University.

Pfeffer, Max J. and Pilar A. Parra. 2008. Community Response to Immigrants in New Destinations. Development Sociology Department, College of Agriculture and Life Sciences, Cornell University, Paper prepared for the conference on Immigration Reform: Implications for Farmers, Farm Workers, and Communities, Washington, D.C., May.

Stromsdorfer, E., Wines, J., and S. Bailey. 2008. Agricultural Workforce in Washington State: The Question of a Structural Shortage of Agricultural Labor in Washington State, 2007. Paper presented at the Conference on Immigration Reform: Implications for Farmers, Farm Workers, and Communities, Washington, DC, May.

U.S. Census Bureau. 2008. Current Population Survey. Available at:
<http://www.census.gov/cps/>

U.S. Department of Labor. 2008. National Agricultural Workers Survey. Employment and Training Administration, Washington, DC. Available at:
<http://www.doleta.gov/agworker/naws.cfm>

U.S. Department of Agriculture. 2008. Agricultural Resource Management Survey (ARMS). Economic Research Service, Washington, DC. Available at:
<http://www.ers.usda.gov/Briefing/ARMS/Update.htm>

U.S. Department of Agriculture. 2008a. Farm Labor. National Agricultural Statistics Service, Washington, DC. Available at:
<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1063>

U.S. Department of Agriculture. 2008b. The 2002 Census of Agriculture. National Agricultural Statistics Service, Washington, DC. Available at:
<http://www.agcensus.usda.gov/Publications/2002/index.asp>

U.S. Department of Agriculture. 2008c. The 2007 Dairy Producer Survey. National Agricultural Statistics Service, Wisconsin Field Office in cooperation with the Wisconsin Department of Agriculture, Trade and Consumer Protection. Available at:
http://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Dairy/dairyproducer2007.pdf

Appendix I: Survey Results

Table 4: Survey results by metropolitan status

Metro status	Total	Fruit	<u>Farm Type</u>			Livestock
			Vegetables	Dairy		
<u>Number of farms</u>						
Metropolitan	595	209	212	111		63
Micropolitan	470	245	77	102		46
Nonmetro	166	73	24	50		19
Unassigned	14	6	1	2		5
Total	1,245	533	314	265		133
<u>Percent</u>						
Metropolitan	47.8	39.2	67.5	41.9		47.4
Micropolitan	37.8	46.0	24.5	38.5		34.6
Nonmetro	13.3	13.7	7.6	18.9		14.3
Unassigned	1.1	1.1	0.3	0.8		3.8
Total	100.0	100.0	100.0	100.0		100.0

Table 5: Survey results by employer status

Employer status	Total	Fruit	<u>Farm Type</u>			Livestock
			Vegetables	Dairy		
<u>Number of farms</u>						
No payroll	348	154	83	46		65
Payroll-no Hispanic workers	546	192	138	162		54
Payroll-1 or more Hispanic workers	351	187	93	57		14
Total	1,245	533	314	265		133
<u>Percent</u>						
No payroll	28.0	28.9	26.4	17.4		48.9
Payroll-no Hispanic workers	43.9	36.0	43.9	61.1		40.6
Payroll-1 or more Hispanic workers	28.2	35.1	29.6	21.5		10.5
Total	100.0	100.0	100.0	100.0		100.0

Table 6: Survey results by number of hired workers

No. workers	<u>Farm Type</u>				
	Total	Fruit	Vegetables	Dairy	Livestock
<u>No payroll</u>	<u>Number of farms</u>				
1-4 workers	348	154	83	46	65
5-9 workers	385	143	89	110	43
10-24 workers	222	91	51	70	10
25 or more workers	197	87	60	38	12
	93	58	31	1	3
Total	1,245	533	314	265	133
<u>No payroll</u>	<u>Percent</u>				
1-4 workers	28.0	28.9	26.4	17.4	48.9
5-9 workers	30.9	26.8	28.3	41.5	32.3
10-24 workers	17.8	17.1	16.2	26.4	7.5
25 or more workers	15.8	16.3	19.1	14.3	9.0
	7.5	10.9	9.9	.4	2.3
Total	100.0	100.0	100.0	100.0	100.0

Table 7: Respondent views on labor availability, next three years							
	Total	Not concerned	Somewhat concerned	Concerned	Quite concerned	Very concerned	No response
				Farms reporting			
All Farms	1,245	363	68	122	137	406	149
Farms payrolling one or more Hispanic workers	351	16	14	31	45	214	31
				Farms reporting-%			
All Farms	100.0	29	5	10	11	33	12
Farms payrolling one or more Hispanic workers	100.0	5	4	9	13	61	9

Table 8: Respondent views on immigration policy and workforce development

	Total	Not important	Somewhat important	Important	Quite important	Very important	No response
All farms reporting							
National immigration reform policy	1,245	384	58	146	105	475	77
Path to citizenship	1,245	487	115	187	108	251	97
Guest worker program	1,245	371	65	143	118	464	84
Competitive wages and benefits	1,245	326	70	202	239	326	82
Continuous training/development	1,245	390	147	279	192	153	84
Off site training opportunities	1,245	520	185	251	110	88	91
Safe/comfortable working conditions	1,245	259	32	140	261	469	84
Opportunities for advancement	1,245	377	85	291	229	168	95
Farms payrolling one or more Hispanic workers							
National immigration reform policy	351	22	9	28	23	260	9
Path to citizenship	351	70	33	65	40	123	20
Guest worker program	351	26	14	27	40	231	13
Competitive wages and benefits	351	28	17	67	92	139	8
Continuous training/development	351	55	44	102	82	58	10
Off site training opportunities	351	113	61	99	38	30	10
Safe/comfortable working conditions	351	6	2	44	108	184	7
Opportunities for advancement	351	57	24	100	97	60	13

Table 8, continued

	Total	Not important	Somewhat important	Important	Quite important	Very important	No response
All farms responding-%							
National immigration reform policy	100.0	30.8	4.7	11.7	8.4	38.2	6.2
Path to citizenship	100.0	39.1	9.2	15.0	8.7	20.2	7.8
Guest worker program	100.0	29.8	5.2	11.5	9.5	37.3	6.7
Competitive wages and benefits	100.0	26.2	5.6	16.2	19.2	26.2	6.6
Continuous training/development	100.0	31.3	11.8	22.4	15.4	12.3	6.7
Off site training opportunities	100.0	41.8	14.9	20.2	8.8	7.1	7.3
Safe/comfortable working conditions	100.0	20.8	2.6	11.2	21.0	37.7	6.7
Opportunities for advancement	100.0	30.3	6.8	23.4	18.4	13.5	7.6
Farms payrolling one or more Hispanic workers-%							
National immigration reform policy	100.0	6.3	2.6	8.0	6.6	74.1	2.6
Path to citizenship	100.0	19.9	9.4	18.5	11.4	35.0	5.7
Guest worker program	100.0	7.4	4.0	7.7	11.4	65.8	3.7
Competitive wages and benefits	100.0	8.0	4.8	19.1	26.2	39.6	2.3
Continuous training/development	100.0	15.7	12.5	29.1	23.4	16.5	2.8
Off site training opportunities	100.0	32.2	17.4	28.2	10.8	8.5	2.8
Safe/comfortable working conditions	100.0	1.7	0.6	12.5	30.8	52.4	2.0
Opportunities for advancement	100.0	16.2	6.8	28.5	27.6	17.1	3.7

Appendix II: Description of Alternate Farm Labor Data Sources³

The Current Population Survey (CPS) is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The CPS is the primary source of information on the labor force characteristics of the U.S. population. The sample is scientifically selected to represent the civilian non-institutional population. Respondents are interviewed to obtain information about the employment status of each member of the household 15 years of age and older. However, published data focus on those ages 16 and over. The sample provides estimates for the nation as a whole and serves as part of model-based estimates for individual states and other geographic areas.

Estimates obtained from the CPS include employment, unemployment, earnings, hours of work, and other indicators. They are available by a variety of demographic characteristics including age, sex, race, marital status, and educational attainment. They are also available by occupation, industry, and class of worker. Supplemental questions to produce estimates on a variety of topics including school enrollment, income, previous work experience, health, employee benefits, and work schedules are also often added to the regular CPS questionnaire.

Source: U.S. Census Bureau, 2008.

The Census of Agriculture is presently conducted by the USDA every five years. The Census provides a detailed picture of U.S. farms and ranches and the people who operate them. It is the only source of uniform, comprehensive agricultural data for every state and county in the United States.

For the 2007 Census of Agriculture, forms were mailed in late December 2007 and farmers and ranchers are asked to respond by mail or online. The 2007 Census of Agriculture will collect information concerning all areas of farming and ranching operations, including production expenses, market value of products, and operator characteristics. Participation in the Census is required by law, and that same law protects the confidentiality of all individual responses.

Source: USDA-NASS, 2008b

³ Narrative in this section is drawn directly from sources cited. Interested readers should investigate each data source for additional information.

Size and Characteristics of the Unauthorized Migrant Population: Estimates Based on the Current Population Survey (CPS).

Government agencies in the U.S. do not count the unauthorized migrant population or define its demographic characteristics. The "residual method" is, however, a widely-accepted methodology for estimating the size and certain characteristics, such as age and national origins, of the undocumented population based on official data from the CPS.

This methodology essentially subtracts the estimated legal-immigrant population from the total foreign-born population and treats the residual as a source of data on the unauthorized migrant population. The term "unauthorized migrant" is used to describe a person who resides in the United States, but who is not a U.S. citizen, has not been admitted for permanent residence, and is not in a set of specific authorized temporary statuses permitting longer-term residence and work. Two groups account for the vast majority of this population: (a) those who entered the country without valid documents, including people crossing the Southwestern border clandestinely; and (b) those who entered with valid visas but overstayed their visas' expiration or otherwise violated the terms of their admission. Some individuals in the estimated unauthorized migrant population initially belonged to one of these groups but have obtained a temporary legal authorization to live and work in the United States. These individuals, many of whom are likely to revert to an unauthorized status, include migrants with temporary protected status (TPS) and others with unresolved asylum claims. Together they may account for as much as 10% of the estimate. In assessing potential programs for dealing with the unauthorized population, it seems appropriate to treat the quasi-legal group as part of the unauthorized program since a significant share of this group would probably be eligible to participate in any program that might lead to regularization of their status, such as a temporary worker program or an earned legalization program.

Source: J. Passel, 2006.

The National Agricultural Workers Survey (NAWS) is an employment-based, random survey of the demographic, employment, and health characteristics of the U.S. crop labor force. The information is obtained directly from farm workers through face-to-face interviews. Since 1988, when the survey began, nearly 50,000 workers have been interviewed.

The NAWS is performed under contract to the Department of Labor and its information is made available to the public through periodic research reports and a public use data set. Numerous Federal government agencies utilize NAWS findings for a multitude of purposes, including occupational injury and health surveillance, estimating the need for services, allocating program dollars to areas of greatest need, and program design and evaluation.

The survey samples crop workers in three cycles each year to reflect the seasonality of agricultural production and employment. Workers are located at their farm job sites. During the initial contact, arrangements are made to interview the respondent at home or at another location convenient to the respondent. Depending on the information needs and resources of the various Federal agencies that use NAWS data, between 1,500 and 4,000 workers are interviewed each year.

Source: U.S. Department of Labor.

The USDA Farm Labor report is based on data collected by the National Agricultural Statistics Service (NASS) during the last two weeks of January using sampling procedures to ensure every employer of agricultural workers had a chance of being selected. Two samples of farm operators are selected. First, NASS maintains a list of farms that hire farm workers. Farms on this list are classified by size and type. Those expected to employ large numbers of workers are selected with greater frequency than those hiring few or no workers. A second sample consists of segments of land scientifically selected from an area sampling frame. Each June, trained interviewers locate each selected land segment and identify every farm operating land within the sample segment's boundaries. The names of farms found in these area segments are matched against the NASS list of farms; those not found on the list are included in the labor survey sample to represent all farms. This methodology is known as multiple frame sampling, with an area sample used to measure the incompleteness of the list.

Source: USDA-NASS, 2008a

Appendix III: Definitions of Terms Commonly Used by the USDA to Describe Farm Structure and Farm Labor Use

Farm or Ranch: A place that sells, or would normally sell, at least \$1,000 worth of agricultural products during the year.

Agricultural Work: Work done on a farm or ranch in connection with the production of agricultural products, including nursery and greenhouse products and animal specialties such as fur farms or apiaries. Also included is work done off the farm to handle farm related business, such as trips to buy feed or deliver products to local market.

Hired Worker: Anyone, other than an agricultural service worker, who was paid for at least one hour of agricultural work on a farm or ranch. Worker type is determined by what the employee was primarily hired to do, not necessarily what work was done during the survey week.

Type of workers include: **Field Workers:** Employees engaged in planting, tending and harvesting crops including operation of farm machinery on crop farms. **Livestock Workers:** Employees tending livestock, milking cows or caring for poultry, including operation of farm machinery on livestock or poultry operations.

Supervisors: Hired managers, range foremen, crew leaders, etc.

Other Workers: Employees engaged in agricultural work not included in the other three categories. Bookkeepers and pilots are examples.

Agricultural Service: Any farm-related service performed on a farm or ranch on a contract or fee basis. This primarily includes activities performed by contract workers on fruit, vegetable, or berry operations. It also includes custom work (see below), veterinarian work, artificial insemination, sheep shearing, milk testing, or any other farm-related activity performed on a farm or ranch on a "fee per service" basis rather than hourly.

Contract Labor: Contract workers are paid by a crew leader, contractor, buyer, processor, cooperative, or other person who has an oral or written agreement with a farmer/rancher. Pruning, thinning, weeding or harvesting of fruit, vegetable or berry crops are examples. A machine is not a part of the service activity provided by the contractor.

Custom Work: Work performed by machines and labor hired as a unit. Hay baling, combining, corn or cotton picking, spraying, fertilizing, and laser leveling are examples of custom work when the equipment is included in the service activity.

Type of Farm: An operation is classified in the farm type which accounts for the largest portion of the total gross value of sales for its agricultural production.

Source: USDA-NASS, 2008a



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New York State Agricultural Immigration and Human Resource Management Issues Survey

Agricultural labor is currently on the minds of producers, policymakers, and the public yet there is little comprehensive data available. This survey will gather information to help policy makers and business leaders better understand how New York farmers feel about labor issues today. Your confidential answers will provide much needed data concerning your sector of New York agriculture. Your answers will be combined with those of other farmers like yourself and only used in summary form. Please return your form promptly so we may have this information available in a timely manner. Your response is voluntary and I thank you for your cooperation in advance.

Stephen Ropel
Stephen C. Ropel
Director

Appendix IV: The Survey Questionnaire

- During 2007, what was the total number of hired workers, including paid family members, on your payroll? (*Exclude contract workers*).....
- For this total number of hired workers, how many were:
 - Family members employed 150 days or more during 2007?
 - Family members employed less than 150 days during 2007?
 - Nonfamily workers employed 150 days or more during 2007?
 - Nonfamily workers employed less than 150 days during 2007?
- For all hired workers, what was (or will be) your gross wages paid in 2007? (*Include employer costs for Social Security, Worker's Compensation, insurance, pension plans, etc.*) ..
- How many contract workers worked on your operation during 2007?
- What was (or will be) your gross cash expense for contract labor in 2007?

Total	Hispanic or Latino Origin
0001	0011
0002	0012
0003	0013
0004	0014
0005	0015
0006	
0007	0017
0008	

- As you make plans for your business over the next 3 years, how concerned are you that there may not be sufficient workers (*immigrant or local*) to employ for your business? (*Please circle answer*)

Not Concerned				Very Concerned	
0301	0302	0303	0304	0305	
1	2	3	4	5	

- Please indicate how important each of the following immigration issues are to your business? (*Please circle answer*)

- A national immigration reform policy
- A path to citizenship for unauthorized workers
- A guest worker program

Not Important			Very Important	
0311	0321	0331	0341	0351
1	2	3	4	5
0312	0322	0332	0342	0352
1	2	3	4	5
0313	0323	0333	0343	0353
1	2	3	4	5

- How important to your business are the following employment practices for attracting and retaining a productive workforce? (*Please circle answer*)

- Wages and benefits competitive with other employers in your community
- Continuous on-the-job training and development opportunities
- Off-site training opportunities
- Safe and comfortable working conditions
- Opportunities for advancement

Not Important			Very Important	
0314	0324	0334	0344	0354
1	2	3	4	5
0315	0325	0335	0345	0355
1	2	3	4	5
0316	0326	0336	0346	0356
1	2	3	4	5
0317	0327	0337	0347	0357
1	2	3	4	5
0318	0328	0338	0348	0358
1	2	3	4	5

OTHER A.E.M. RESEARCH BULLETINS

RB No	Title	Fee (if applicable)	Author(s)
2007-01	Dairy Farm Management Business Summary, New York State, 2006	(\$20.00)	Knoblauch, W., Putnam, L. and J. Karszes
2006-07	Financial Performance and Other Characteristics of On-Farm Dairy Processing Enterprises in New York, Vermont and Wisconsin		Nicholson, C. and M. Stephenson
2006-06	Dairy Farm Management Business Summary, New York State, 2005	(\$20.00)	Knoblauch, W., Putnam, L. and J. Karszes
2006-05	Measuring the impacts of generic fluid milk in dairy marketing		Kaiser, H. and D. Dong
2006-04	2007 Farm Bill: Policy Options and Consequences for Northeast Specialty Crops Industries, Small Farms, and Sustainability Programs		Bills, N., Gloy, B., Uva, W., White, G. and M. Cheng
2006-03	Farm Savings Accounts for Specialty Crop Growers		Cheng, M. and B. Gloy
2006-02	Ecosystem Values and Surface Water Protection: Basic Research on the Contingent Valuation Method		Messer, K., Platt, L., Poe, G., Rondeau, D., Schulze, W. and C. Vossler
2006-01	An Economic Analysis of Generic Fluid Milk Advertising in Ontario, Quebec, and the Maritime Provinces		Kaiser, H., Cranfield, J. and M. Doyon
2005-03	Dairy Farm Management Business Summary, New York State, 2004	(\$20.00)	Knoblauch, W., Putnam, L. and J. Karszes

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