



U.S. Department of Labor (DOL)
Employment and Training Administration (ETA)

**Policy and Low-Wage Labor Supply:
A Case Study of Policy and Farm Labor Markets in New
York State**

Prepared by:
Elizabeth Nisbet, Ph.D. Candidate
Bloustein School for Planning and Policy
Rutgers University
Princeton, New Jersey

This paper was funded, either wholly or in part, with Federal funds from the U.S. Department of Labor, Employment and Training Administration (ETA) under Contract Number DOLJ061A20380. The contents of this publication do not necessarily reflect the views or policies of the Department, nor does mention of trade names, commercial products, or organizations imply endorsement of same by the U.S. Government. This paper was one of seven prepared under the 2009 ETA Research Papers Program, which competitively awarded doctoral and post-doctoral students funding to conduct original research and prepare scholarly papers on topics relating to the workforce investment system.

Acknowledgements

The author would like to thank Hal Salzman, William M. Rodgers III, Carl E. Van Horn, and James DeFilippis of the Bloustein School at Rutgers University and Eileen Appelbaum, School of Management and Labor Relations at Rutgers University for their thoughtful review and helpful feedback on versions of this research.

Table of Contents

Executive Summary.....	vi
I. Policy and Farm Labor Markets	1
A. Introduction	1
B. The Study	4
C. Labor Shortages and Calls for Policy Change	6
II. The Farm Labor Force	8
A. NAWS data: Trends in the Non-H-2A Workforce	9
1. Workforce Composition	9
2. Wages, Income, and Benefits.....	10
B. H-2A program.....	12
III. Policy and the Farmworker Occupation	13
A. Controlling Illegal Immigration	14
1. Border Patrol and Interior Enforcement.....	15
2. Employee Identification	16
B. Immigration Policy to Expand Farmworker Supply.....	18
1. Legislation to Legalize Farmworkers.....	19
2. Guest Worker Programs.....	20
Overview of H-2A Regulations and AgJOBS Legislation	23
C. Policies to Improve Living and Workplace Standards	23
1. Labor Standards	25
a. Federal	26
b. State	28
2. Social Programs.....	29
IV. Policy and Local Farm Labor Market Dynamics	30
A. New York’s Shortages and Surplus.....	30
B. The Organization of Farm Workforces.....	33
C. The Incorporation of the H-2A Program into Workforces	37
D. An Example of Policy Implementation: Housing.....	39
V. Discussion.....	43
A. Policy and Farm Labor	43
B. Improving the Situation of Farmworkers.....	45

Appendix: Tables and Figures	49
Table 1: Qualitative Interviews	49
Table 2: Comparison of Fruit/Nut and Vegetable Workers with Full Sample.....	49
Table 3: Differences in Real Wages and Income by Group.....	50
Table 4: Time Spent in Farm Work for Pre-harvest, Harvest, or Post-harvest Work in Fruit/Nut or Vegetables.....	50
Table 5: Government Records of Foreign Labor Presence	50
Figure 1: Place of Birth	51
Figure 2: Legal Status of Workers	51
Figure 3a: Change in Presence of Migrants in the U.S.....	52
Figure 3b: Change in Presence of Migrants in the East	52
Figure 4: Average Hourly Wages of Crop Workers, Nominal and Real (2006) Dollars, 1989-2006.....	53
Figure 5: Real Income (2006 Level).....	53
Figure 6: H-2A Visas Issued by Fiscal Year.....	54
Figure 7: Foreign Workers Employed in Peak Period (September)	54
Source: New York State Department of Labor.....	54
References	55

Abstract

Farmers and industry groups often advocate for change in immigration policy to address farm labor shortages. Such calls for intervention raise questions about the range of policies that relate to labor supply and affect farmworkers in local markets. This paper describes a case study of policies related to farmworker supply and how these play out in labor markets in New York, drawing from government and interest group records, statistics from the National Agricultural Workers Survey, and qualitative interviews. Results illustrate the complexity of policies influencing labor supply and workforce organization and point to challenges inherent in maintaining workforces while attending to the quality of farm work.

Executive Summary

Farmers and industry groups regularly call for policy change to address shortages of farm labor. Such calls for government intervention to expand the pool of workers raise questions about other policies that relate to supply and affect workers and how these might be important in local labor markets. While farm groups often propose solutions that involve expanding temporary or longer-term foreign worker pools through immigration policy, there are additional roles of government in labor supply embodied in labor standards and social policy. Even where there is not a clear supply effect of policy, looking at the state's involvement in an occupation calls for attention to the range of policy affecting it.

To inform policy discussion, this paper describes initial results from a mixed-method case study to answer the questions: 1) What policy changes, including policies enacted specifically to address labor shortages, might have affected the supply of farmworkers in the United States?; and 2) How might these policies play out in labor markets in New York State?

Research included:

- An overview of the farm labor force, drawing from statistics from the National Agricultural Workers Survey (NAWS) on trends in farm labor supply and farm jobs, and information from the New York and U.S. Departments of Labor on nonimmigrant foreign temporary workers for seasonal agricultural labor participating in the H-2A visa program;
- A review of the policy framework for farm labor markets, drawing from government and interest group records (i.e., Congressional hearings and press releases or policy briefs), academic literature, and qualitative interviews with policy actors; and
- A discussion of possible linkages between policy and workforce organization in New York State farm labor markets, drawing on qualitative interviews with 13 employers or supervisors; 23 policy actors at federal and state levels, experts, or service and advocacy organization staff; and several groups of workers (58 total).

NAWS data show that the share of migrants in the farmworker population is declining and the increase in the share of Mexican-born and undocumented workers has leveled off (see

Section IIA), but all three groups are more present among workers harvesting fruits or vegetables or engaged in pre- and post-harvest tasks for these crops. Data also show flat real wages and a low share of receipt of benefits like unemployment, worker's compensation, and health insurance. Real income has increased, but well over a third surveyed were below the poverty level. The presence of H-2A workers in the State has grown. In fiscal year 2007, there was a 27.3% increase from 2006 in the number of H-2A workers certified to work in New York State (4013) and a 23.5% increase in the U.S. overall (89,575).¹

This paper shows that concerns about farm labor supply have continued to draw the attention of federal policymakers since 1986, and calls on government to resolve shortages tend to occur in reaction to or anticipation of immigration policy change. In addition, while the nature of the available supply of farmworkers is affected by factors such as the economy, available job opportunities, and influences over migration such as the peso devaluation, it is also influenced in contradictory ways by policy in more areas than immigration.

Immigration policy related to the farm workforce, especially hired seasonal workers, has seen no major legislative supply expansion since 1986, but restrictive policies such as border control, interior enforcement, and verifying eligibility of workers have changed considerably and are a great concern to farmers in New York. Other policies are also relevant: labor standards might constrict supply if they contribute to work conditions that make jobs unattractive or expand supply by improving conditions. Social programs may make up for low wages or other unattractive conditions of work and could feasibly help workers to remain in the industry, or sometimes help them find employment outside agriculture. Many policies are specific to farmworkers or the agricultural industry, including the H-2A temporary guest worker program for agriculture as an example of immigration policy, agriculture industry exceptions in the

¹ The number increased at a lower rate through 2008 to a total of 4,427 in New York and 99,454 in the U.S.

National Labor Relations Act (NLRA) concerning collective bargaining rights and Fair Labor Standards Act (FLSA) concerning wage and hour protections as examples of labor standards, and health or education services targeting migrant and seasonal workers as examples of social programs. Occupational specificity is just one way that policy exclusions affect the situation of workers, as legal status, employer size, and whether a worker migrates, all affect program eligibility or applicability of standards. Multiple strands of interconnected policies have different goals as well as different coverage, and this complexity becomes even more apparent as policy is implemented (see Section IV).

Findings from in-depth interviews conducted in New York State reveal how labor market actors view shortages and surpluses of farm labor. Qualitative findings also suggest how policy and labor markets might be connected in practice with a discussion of workforce organization and a specific example of links among farmworker housing, policy, and labor supply.

Because undocumented workers represent an increasing portion of the farm workforce in New York, worker supply is partly conditioned by immigration enforcement. In New York, employers are increasingly drawing on another policy-influenced supply of workers, foreign temporary workers in the H-2A visa program for agriculture, after experiences with immigration control by government. Though Jamaican H-2A workers have a long presence in the New York apple harvest, Mexican H-2A workers also are present in this industry. While demand for labor is influenced by the mix of crops, costs, the degree of mechanization, and other factors, this research demonstrates that policy can eventually influence demand as it shapes the type and cost of workers available to employers making decisions about their workforces (see Section IV).

Assessing worker conditions was not a research goal. However, NAWS data show that wages have been flat while incomes increased, though well over a third sampled are below the poverty

level. The share of workers who receive each of several key benefits ranges from about 25% to 40%. Some participating in qualitative interviews did not provide pay information, but seasonal and migrant workers who earned hourly wages typically reported rates from \$7.15, just under the federal minimum, to around \$9 an hour, without overtime pay. Hourly and piece rate pay varies by crop and farm. Most were covered by worker's compensation but had no health insurance.

This paper also provides a close look at policy on the ground that is useful in thinking through the complex nature of government involvement in the farmworker occupation and in low-wage work more generally. For example, qualitative interviews show that immigration concerns complicate actions of employers and workers, making it more difficult to maintain a basic level of labor conditions because of concerns about whether government action to enforce labor, housing, occupational safety and other standards will bleed into immigration.

The paper concludes with points to motivate further discussion. Discussions on labor supply at the federal policy level often focus on how to get new workers into the same jobs with little emphasis on how to slow down turnover or improve jobs. Farm work in particular is extremely difficult physically, and an assumption that many people do not want to do the jobs goes hand-in-hand with the emphasis on finding new supply. Yet, despite the potential for mechanization on the horizon and warnings of shipping agricultural production overseas, all farm jobs are not going to disappear, and not all farmworkers can find other jobs even if they are served by policies and programs that help them to do so. In addition, some worker advocates point out that farmworkers may want to stay in farm work. Thus research and policy should continue exploring ways to improve the economic security and basic conditions of work for those who stay in farm work while continuing to expand options for those who wish to leave it. At the same time, farmers stress that they are in a very difficult industry and feel squeezed by spiraling

input costs, limits on what they can charge buyers, and the precarious immigration status of the available workforce. They believe they have no legal workforce that is dependable and that they cannot afford much higher wages. As many farms grow, their workforces become larger, exacerbating the short-term need for many workers. Consideration of policies should take into account such concerns.

I. Policy and Farm Labor Markets

A. Introduction

Farmers and industry groups regularly call for policy change to address shortages of farm labor. Pointing to a range of factors that shrink the potential farm workforce, these groups seek policy action to expand the pool of workers. Claims of worker shortages for farming and other low-wage occupations have persisted in the current recession (House Committee on Education and Labor, 2008), while many worker advocates argue that shortages are simply a function of low wages. Calls for intervention to address one industry's labor market problem draw attention to the role of government, raising questions about other policies that relate to supply and affect workers and how these might be important in local labor markets.

While a policy solution sometimes advanced for medium- and high-skilled shortages is to fund training, for low-wage jobs requiring limited education employers often seek immigration policy change. Farm employer interest groups may blame shortages on immigration policy that constricts supply of undocumented workers, while historically immigration policy has also expanded supply through programs to legalize agriculture workers or bring in temporary foreign workers. Despite these clear supply effects, a broad view that includes more than immigration is useful to inform policy conversations about how to achieve good quality farm jobs and meet labor needs of employers. Even where there is not a clear supply effect, looking at the state's involvement in an occupation calls for attention to the range of policy affecting it.

In order to inform discussion about policy options, this paper describes initial results from a mixed-method case study focused on the years since the Immigration Reform and Control Act

(IRCA) in 1986.² Drawing from field work in New York State farm areas; interviews with policy actors; a review of government records; and data from the National Agricultural Workers Survey (NAWS), this study examines the following questions:

- What policy changes since IRCA, including policies enacted specifically to address shortages, might have affected the supply of farmworkers in the U.S.?; and
- How might these policies play out in labor markets in New York State?

Policy related to the farm workforce (especially hired seasonal workers) (see Section III) includes immigration policy, which has seen no major legislative supply expansion for farmworkers since 1986. Labor standards might constrict supply (and influence employer demand) if they contribute to work conditions that make jobs unattractive (and hold down costs) or expand supply by improving conditions. Social programs may make up for low wages or other unattractive conditions of work by meeting basic survival needs and could feasibly help workers to remain in the industry, or may help them find employment out of agriculture. Many such policies apply only to farmworkers or the agricultural industry, including the H-2A temporary guest worker program for agriculture³ as an example of immigration policy; agriculture industry exceptions in the National Labor Relations Act (NLRA)⁴ and Fair Labor Standards Act (FLSA)⁵ as examples of labor standards, and health or education services targeting migrant and seasonal workers as examples of social programs. These multiple strands

² IRCA required employers to verify employee eligibility to work and included other provisions regarding unauthorized and temporary nonimmigrant foreign workers in agriculture, as well as provisions barring discrimination based on citizenship (Runyan, 2000, Martin, 2009, see Section IIIB).

³ Under this program, employers hire short-term foreign contract workers for seasonal agricultural jobs who enter the country under nonimmigrant visas called H-2A visas (see Section IIIB).

⁴ The National Labor Relations Act (NLRA), often referred to as the Wagner Act, was enacted in 1935 to provide guarantees of the ability of workers to bargain collectively with support for majority-rule union elections (Skocpol & Finegold, 1990). See also http://www.nlr.gov/about_us/overview/national_labor_relations_act.aspx.

⁵ The Fair Labor Standards Act of 1938 concerns minimum wage levels, allowable hours, child labor, and recordkeeping. It contains exemptions for agricultural employers (Runyan, 2000) described in Section IIIC.

of interconnected policies have complex goals. The complexity becomes even more apparent as policy is implemented (see Section IV).

The paper concludes with points to motivate further discussion. Supply discussions at the federal policy level often focus on how to get new workers into the same jobs with little emphasis on how to slow down turnover or improve jobs. Farm work in particular is extremely difficult physically, and an assumption that many people do not want to do the jobs goes hand-in-hand with the emphasis on finding new supply. Despite the potential for mechanization on the horizon and warnings of shipping agricultural production overseas, all farm jobs are not going to disappear, and not all farmworkers can find other jobs even if they are served by policies and programs that help them to do so. In addition, some worker advocates point out that farmworkers may want to stay in farm work. Over the long term, the nature of the work takes a physical toll on those who do. Thus research and policy should continue exploring ways to improve the economic security and basic conditions of work for those who stay in farm work, while continuing to expand options for those who wish to leave farm work or become physically unable to do it. At the same time, farmers stress that they are in a very difficult industry and feel squeezed by spiraling input costs, limits on what they can charge buyers, and the precarious immigration status of the available workforce. They believe they have no legal workforce that is dependable and that they cannot afford much higher wages.

Finally, this report provides a close look at policy on the ground that is useful in thinking through the complex nature of government involvement in the farmworker occupation and in low-wage work more generally. For example, qualitative interviews show that immigration policy complicates actions of employers and workers, making it more difficult to maintain a basic level of labor conditions because of concerns about whether government action to enforce

labor, housing, occupational safety and other standards will bleed into immigration. Even when labor market actors do not associate immigration and other policy goals, employers may be frustrated by overlap of enforcement efforts and negative views of the value of regulations.

B. The Study

This paper begins with an overview of the national farm labor force, then examines the policy framework for farm labor markets, and finally considers policy and workforce organization at the level of New York State farm labor markets, drawing on the following:

- Statistics from NAWS show trends in farm labor supply and farm jobs, both for all farmworkers in the U.S. and those in fruit and vegetables who do planting, harvesting, and post-harvest tasks (a population that corresponds to the qualitative sample). The need for this subgroup of workers may be increasing as demand grows for fresh fruit and vegetables, particularly labor-intensive organic produce (Kandel, 2008).
- A review of government and interest group records (i.e., Congressional hearings and press releases or policy briefs) and qualitative interviews with policy actors tracks change in policies related to the farmworker occupation, especially labor supply.
- Qualitative interviews with policy actors at the state and federal level and local government officials, growers, employers, and employees of organizations providing services to farmworkers in New York State provides information about how employers organize the workforce and how policy plays out at the local level. Complementary information from secondary sources includes statistics from the New York State and U.S. Departments of Labor on the H-2A worker population.

New York is an appropriate choice for this study because of the size of its farm sector and the few studies focusing on farmworkers there. In 2000, it was one of five states accounting for over half of all farmworkers, with 4% of the total in the U.S. (Runyan, 2003). Though the state's share of the H-2A agricultural guestworkers in the U.S. each year has fallen from close to a tenth to under 5%,⁶ there is a longstanding presence of guestworkers in the State's apple industry.

⁶ In 1997, 9% of H-2A workers were in New York (Effland and Runyan 1998, 21); current statistics show 4% in the state (section IIB).

Field work focused on labor intensive crops New York is a leading producer of: cabbage, onions, and apples.⁷ Policy debate often concerns workers whose tasks are difficult to mechanize. Experts indicate the importance of a short growing season and the large quantity of fresh produce supplied to the New York City market for the state's industry and its labor needs. In all 13 employers or supervisors, 23 policy actors, experts, or service and advocacy organization staff, and several groups of workers (a total of 58) were interviewed (see Table 1; all tables are in the Appendix).

The sample for growers included a balance of H-2A and non-H-2A employers running fairly large operations in two regions (the lower Hudson Valley and Finger Lakes areas) identified through publicly available farm lists. Apple growers were in two high-producing counties (Ulster and Wayne) in the two regions, and vegetable growers were in Orange County (Hudson Valley) or one of several counties in the Finger Lakes region including Genesee, Monroe, Orleans, and Wayne. Orange and some Great Lakes basin counties have black dirt or muck areas of rich former swampland ideal for vegetable growing. Orange County is a center of onion production, which despite partial mechanization requires large numbers of workers for tasks such as planting and packing. The farms and acres devoted to onions there have declined because of competition and other factors diminishing profits, and onion farmers have diversified to grow multiple vegetables, which increases labor needs. Interview participants in the Hudson Valley report that the trend of consumer preference for locally-grown vegetables has helped business. Workers were identified through organizations providing services to farmworkers and worker advocates and frequently met in housing provided by employers or farm labor contractors. Most worked in the focus crops mentioned aside from a few in packing or corn production.

⁷ According to an extension expert, cabbage farmers are particularly concerned about shortages, while advocates suggested speaking to onion workers, although onions are partially mechanized on many farms.

C. Labor Shortages and Calls for Policy Change

Many observers have noted frequent claims growers have made in the policy arena that they could not find labor to harvest crops, that shortages would drive them to leave crops rotting or drive production out of the country, and that government must intervene to assure a labor flow because of the importance of the industry. Arguing that the H-2A program is not workable, grower interest groups have lobbied government to create new guestworker programs, change the process of Department of Labor certification of an application for H-2A workers⁸ or other requirements for the existing H-2A program, and create industry-specific provisions for legalizing supply. Though social policy revision has not been part of their agenda, growers or their representatives have also said government benefits constrict supply. Such policy conversations call attention to the role of government in labor supply and provide context for the remaining discussion of policy and the farmworker occupation.

Not all causes of labor shortage growers identify are linked to policy demands. In Congressional hearings, news quotes, and interviews for this study, growers describe the seasonality and difficulty of farm work, available workers' inappropriateness or unwillingness to take farm jobs, tight labor markets, and the aspirations, socio-economic success, or work ethic of "American" workers. Calls to address farmworker supply problems have been most insistent when policy actors anticipate implementation of immigration policy (such as IRCA in 1986) or seek to influence legislation being formulated, including the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA, 1996),⁹ policy changes following September 11, 2001, and proposed legislation called The Agricultural Job Opportunities, Benefits, and Security Act

⁸ Under the Immigration and Nationality Act (INA), the Department of Homeland Security may allow employers to bring in foreign agricultural workers to do temporary or seasonal work if the Department of Labor certifies that a lack of sufficient workers is available in the right time and place and that employment of the foreign worker "...will not adversely affect the wages and working conditions of workers in the United States similarly employed." See Federal Register. Vol. 75, No. 29. February 12, 2010, p. 6884.

⁹ IIRIRA or P.L. 104-288 was intended to control illegal immigration. See Section IIIA.

(AgJOBS).¹⁰ This statement of an American Farm Bureau representative exemplifies such arguments:

Through expanded border interdiction efforts, broadened enforcement of the laws related to the hiring of undocumented aliens, and phase-in of a telephonic employment verification system H.R. 2202 will affect the availability of an adequate future labor supply for agriculture.... While NCAE [National Council of Agricultural Employers] and AFBF [American Farm Bureau Federation] support the purposes, if not all of the means to achieving these immigration control initiatives, responsible public policy dictates that they be adopted in conjunction with amendments that will balance their impact on the agricultural labor supply by providing an effective temporary and seasonal alien agricultural worker program" (House Judiciary Subcommittee on Immigration, 1995, p. 80).

Labor shortages have been a key argument made in the past few years by those seeking passage of the AgJOBS bill in Congress, which provides for changes to the H-2A program and a path to legalization for undocumented farmworkers (Martin, 2009). In 2007, *The New York Times* reported that because of shortages in “states like California, Michigan, and North Carolina,” support had “re-emerged” for an “agricultural bill” (Preston, 2007).

Requests to change policy that are linked to concerns about labor shortages relate to a basic effect on supply: expansion through immigration policy. However, there are additional roles of government in labor supply embodied in labor standards and social policy (see section IIIC), some references to which appear in policy discussion. Worker advocates have argued that poor conditions in farm work fail to attract adequate workers and that growers could raise wages to increase supply. They also may now agree that there is a shortage of documented workers while continuing to point to poor work conditions. Exclusions in labor standards law with regard to agriculture, which for example exempt employers from paying overtime and exempt small farmers from certain requirements, might constrict supply by lowering wages while also maintaining demand for workers. Policy actors have discussed social programs in the context of supply as a secondary topic or background commentary. In the following quote, a grower

¹⁰ This bill would change the H-2A program and provide a path to legalization for some undocumented farmworkers.

representative said children of farmworkers would not likely want to enter farm work, adding a reference to social programs for migrant workers:

And I have to raise the question, given the billions of federal dollars we have spent in this country over the past several decades trying to settle people out of the migrant stream, whether this is the policy we really want to pursue in this country (House Judiciary Committee, 1995, p 85).

At the same hearing a Congressman pointed out that former welfare recipients might enter farm work following welfare reform (then on the horizon) because they would have so few options. Publicly and privately, farmers often state that means-tested social policy programs create an opportunity for workers to refuse undesirable work. These programs are largely unavailable to undocumented immigrants.

II. The Farm Labor Force

This section provides an overview of basic trends in the farm workforce in the U.S. and estimates of the size of the H-2A workforce. Data from the National Agricultural Workers Survey (NAWS) from 1989-2006 show that the concentration of Mexican and undocumented workers increased over time but leveled off after 2000. The percentage of non-migrant workers has grown since the late 1990s but more slowly since 2000. Real wages in 2006 were approximately at the same level as in 1989, and under half the NAWS sample received most benefits, including insurance, free housing, worker's compensation, and unemployment insurance, at most points in time, although coverage levels were higher generally in the East region. Government statistics (in section IIB) show that the number of workers certified to enter the U.S. and in New York on H-2A temporary worker visas has increased sharply since FY 2006. From FY 2007 to FY 2008, there was a 25% increase in the number of foreign workers the state reported at harvest time.

A. NAWS data: Trends in the Non-H-2A Workforce

Many large surveys undersample farmworkers and undocumented workers. The NAWS, a representative survey that has been conducted several times a year since 1989 by the U.S. Department of Labor (DOL), is better able to reach seasonal and undocumented workers (U.S. DOL, 2005).¹¹ This section reviews trends in the U.S. and the East region (16 states with New York)¹² for which data were calculated in groups of two or four years.¹³

1. Workforce Composition

Since 1989 the composition of the U.S. farm workforce has changed in several ways. The share of Mexican-born workers increased sharply from 1989 until 2000 and then leveled off (Figure 1; all figures are in the Appendix). In the East, the share of Mexican-born workers in 2005-06 was far lower than in the U.S. as a whole (52% vs. 74% in the U.S.), while the proportion of U.S.-born workers was higher (34% in the East vs. 22% in the U.S.). Central American and Puerto Rican workers comprised 8.4% and 4% of the total in the East. Workers classified as Black/African-American accounted for only 3.75% of workers in the U.S. in 2005-06, but in the East their presence increased over time to 11.58%, in 2005-06, vs. 3%, in 1989-90. This was not reflected in qualitative interviews with New York growers (see Section IVB), but some service agency staff reported contact with African American farmworkers. Over-time data on legal status (Figure 2) for workers in the U.S also show a leveling off after 2000 of the sharp

¹¹ The NAWS sampling procedure entails identifying 80 clusters within 12 regions aggregated from 17 USDA regions and drawing a random sample of employers based on public administration records (unemployment, pesticide registrations, and others). Researchers speak to employers to gain access and ask a random sample of workers to participate, who are then interviewed in a place of their choosing such as their home.

¹² States include North Carolina, Virginia, Kentucky, Tennessee, West Virginia, Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont, Delaware, Maryland, New Jersey, and Pennsylvania.

¹³ Combining years is recommended for regional analysis given the small sample size, which in the East annually ranges from 149 to 478 and was 176 in 2006 (Dept. of Labor. NAWS Public Access Data: Fiscal Years 1986-2006. Retrieved Dec. 7, 2009, from http://www.doleta.gov/agworker/pdf/documentation/NAWS_Public_Access_Data.pdf.

increase in the proportion of unauthorized workers. In the East, the percentage of unauthorized workers was 11% in 1989-92, peaked at over 60% in 1993-96 and fell to 47% in 2005-06.

NAWS data provide information on whether workers follow the crops (FTC), are “non-migrants” (or “settled”), shuttle (or move between two locations within or outside the U.S.¹⁴). Figures 3a and 3b show that the proportion of settled workers has increased since 1997-2000 nationally and very sharply since 1993-96 in the East, while that of migrants has declined since the 1990s. In 2005-06, 29% reported being in the shuttle category, and FTC workers represented under 10% (overall and in the East). The proportion of FTC workers has been highest over time in vegetables, where they accounted for around a fifth of workers until 2001 and 15% in 2005-06. Vegetable workers were also more likely than those reporting work on other crops to be employed by a farm labor contractor (24.7%), followed by fruit/nut workers (22.72%), a figure well below 10% in other categories. The proportion of unauthorized, Mexican-born, and migrant workers is higher among those who worked in fruits or vegetables doing harvest, pre-harvest, and post-harvest tasks (see Table 2).¹⁵

2. Wages, Income, and Benefits

Figure 4 shows the change in average hourly wage, which NAWS calculates using information about different types of pay workers report (i.e., piecerate,¹⁶ salary, or hourly rate). Real wages (based on 2006 dollars) were about the same in 2005-06 (\$8.22 an hour) as in 1989-90 (\$8.25) after a low of \$7.16 in 1996. Real income rose over time (see Figure 5). Pena (2009)

¹⁴ Workers who follow crops move from harvest to harvest and work in multiple locations each year. International shuttlers move between the U.S. and a home country where they spend over 28 days. Workers may also shuttle between home bases within the U.S. that are 75 miles apart.

¹⁵ The category of pre-harvest for this study is defined as “hoeing, thinning, and transplanting” and post-harvest as “field packing, sorting, and grading” (Department of Labor, 2005, 32-33). One problem with task breakdowns is that the portion categorized as doing “other” tasks rose sharply after 1997-98 to 29%. In 2005-06 22% of workers reported they were harvesting, a fifth reported pre-harvest work, and under 15% post-harvest work. Definitions of skilled and semi-skilled are unclear, but skilled production tasks include work such as irrigating fields.

¹⁶ Piecerate pay is productivity based (Pena, 2009), i.e., pay per output unit such as the bushel, bin, or box picked.

has found that workers earning piece rate rather than hourly wages may be more vulnerable to poverty. The NAWS data show little change over time in the proportion earning different types of pay. Generally around a quarter of the sample earned piece rate, about three-quarters were hourly-paid, and under 5% reported earning a combination.

Real wages for U.S.-born, men, and authorized workers were significantly higher in 2005-06 (Table 3) than those for Mexican-born, women, and unauthorized workers. For Mexican- and U.S.-born workers the trend was similar, but beginning in 1999, wages were higher for U.S.-born workers.¹⁷ Wages of Mexican-born workers and women both declined after 2004. The wage gap between authorized and unauthorized workers grew over time. In 2006, unauthorized workers earned an average of \$7.35 an hour, Mexican-born workers \$7.84, and women \$7.49. Real income levels (see Figure 5) rose for all groups, but with similar disparities so that men earned more than women, authorized earned more than unauthorized workers, and workers in other tasks earned more than those involved in harvest work (“task 2”). Compared to the full sample, hourly wages of workers in pre-harvest work were significantly lower (\$7.77) and of harvest workers considerably higher (\$8.52). However, income levels for harvest workers were lower than for the full sample (\$12,986 vs. \$16,850). Griffith (2007) points out that workers may earn high pay per hour but low seasonal or annual incomes because of “forced idleness” (75) from factors such as weather, and harvest workers may be employed a short time during the year. One reason for income increases despite flat wages may be that workers are doing more farm work, at least for those in more labor-intensive tasks in fruits and vegetables (see Table 4).

Workers who received or were covered by several employer- and government-provided benefits ranged from 20% to 50% of the sample. Just over a quarter of workers surveyed (27%) had health insurance in 2005-06. Under a fifth (17%) reported their employer provides free

¹⁷ Not including those born in Puerto Rico.

housing (see Section IVD). The proportion who reported they were eligible for worker's compensation was consistently above 40% after 1999 (compared to under a fourth in 1989-90).¹⁸ Unemployment insurance (UI) coverage was 40% in 2005-06,¹⁹ and 20% reported they had received UI.

B. H-2A program

Several indicators point to a sharp increase in the number of H-2A workers in recent years. State Department records show that the number of H-2A visas issued approximately doubled from about 30,000 to about 60,000 since Fiscal Year (FY) 2006 but dropped in 2009 (Figure 6).²⁰ Mexican workers accounted for an important part of this shift.

Both the U.S. and New York State DOLs keep records of foreign workers. U.S. statistics from employer applications to be certified for the H-2A program are available publicly from FY 2006 to 2009. Around 4% of workers in approved applications during these years were approved to work in New York. State records show that 4,619 workers were certified to work in New York for FY 2009 (vs. 4,427 according to U.S. records; see Table 5).²¹ Typically, more workers are certified than arrive. State records indicate that the number of foreign workers employed at the season peak in September increased from 2100 in FY 2006 to 2900 in FY 2008 (Figure 7).

An often-quoted figure is that H-2A workers comprise just 2% of all farmworkers, but it has been noted that for specific subsectors the share is much higher. Farmers of crops with predictable harvests, such as citrus, may be more likely to employ H-2A workers (Gilbert, 2005). In some states tobacco, apple, peach, tomato, onion, squash, and grain growers are significant users of the program (Levine, 2009). Uncertainty about the total number of farmworkers makes

¹⁸ Survey question: If you are injured AT WORK or get sick as a result of your work, do you get any payment while you are recuperating (i.e., workers compensation)?

¹⁹ i.e., workers who reported they were covered by unemployment insurance if they lost their job.

²⁰ Data available at: http://travel.state.gov/visa/frvi/statistics/statistics_4582.html. Retrieved January 26, 2010

²¹ The same employer may file several orders, and more workers may be certified than enter the U.S. to work.

it more difficult to assess H-2A's importance for labor markets. For example, a U.S. Department of Agriculture (USDA) report placed the number of hired farmworkers between 1 and 2.5 million for 2006 and the proportion of H-2A workers that year at below 3% (Kandel, 2008).

A very rough comparison of this figure with U.S. DOL FY 2007 statistics and New York records produces a much higher percentage. The USDA census reported 59,683 hired farmworkers in New York in calendar year 2007²² of whom 35,690 worked under 150 days and are considered migrant workers (Hamilton 2010). The number of workers certified for New York according to the U.S. DOL (generally higher than the number who arrive) is 11% of the calendar-year census count of seasonal workers. New York State data indicate that "foreign" workers in peak season in September (see Figure 7) account for 22% of the total number of hired seasonal agricultural workers and 27% for 2008. Among apple workers in 2008 this share was over 40%.²³ Yet the likelihood that seasonal workers are undercounted in state data means this number may be higher than the reality. In fact, Heppel and Amendola noted in 1992 that the numbers of farmworkers collected by State Departments of Labor tend to be low.

III. Policy and the Farmworker Occupation

Public policy and other factors, such as economic cycles, economic and political conditions in sending countries, cross-national policy such as trade agreements, and the attacks of September 11, 2001, affect farmworker supply. For example, a good economy may draw many farmworkers to sectors such as construction; with regard to Mexican immigrants, both the North American Free Trade Agreement (NAFTA) and IRCA in 1986 temporarily interrupted a decreasing trend of migration from Mexico to work on U.S. farms

²² This includes paid family members but not contract workers.

²³ The number of seasonal workers is based on estimates of Department of Labor staff based in farm areas.

(Boucher and Taylor, 2007), and the devaluation of the peso in Mexico contributed to an increase in migration to the U.S. (“California Growers,” 1995).

Grower interest groups see immigration policy as key to maintaining supply.

Immigration policy has expanded supply with policies legalizing workers who could show or attest they had worked in agriculture (1986) and programs to bring in short-term foreign contract workers (through H-2A visas, previously H-2 visas). At the same time immigration policy, including requirements to verify the legal status of workers, interior enforcement, and control of entry at the border, can restrict supply. Ineffective implementation may weaken the impact of restrictive policies or result in an even greater increase in labor supply, and this supply effect like others could indirectly affect work conditions. In recent years, as immigration control has grown, use of H-2A programs has also.

Yet the role of policy in farm labor markets encompasses far more than immigration policy. Various government efforts over time have helped match workers to employers. Social programs and labor standards both contribute and respond to work conditions of farmworkers. Policy governing the ability of workers to bargain collectively, the level of enforcement of workplace standards, and the presence or absence of government-supported legal services also affect working conditions (Bernhardt, Boushey, Dresser, & Tilly, 2008). This section provides historical background and reviews changes in such policies since 1986.

A. Controlling Illegal Immigration

Individual farmers may express fear of repercussions of hiring undocumented workers, but they and their interest groups acknowledge that a significant portion of the workforce generally is undocumented (Gilbert, 2005) while often stressing that they check documents for all workers they hire. Calls for government response to farm labor shortages often emerge in reaction to

change in policy controlling entry or hiring of undocumented workers (e.g., border security, interior enforcement, and mechanisms for establishing that workers are legally eligible for employment). This section describes some of the numerous legislative and executive actions in this area since 1986. Policy expanding farmworker supply through immigration changed little until regulatory revisions of the H-2A program (see Section B below).

1. Border Patrol and Interior Enforcement

The impetus for major immigration laws in 1986 (IRCA), 1990 (the Immigration Act)²⁴ and 1996 (the IIRIRA) emerged from the Select Commission on Immigration and Refugee Policy (Tichenor, 2002 and Zolberg, 2006). In its 1981 report, the Commission identified illegal immigration as a problem to be addressed first, while embracing the idea of expanded legal immigration as beneficial for the country (Tichenor, 2002). Step one was taken with IRCA in 1986, which expanded farm labor supply (see Section B) but also made employers responsible for checking that employees were work-authorized, established sanctions for employers, and authorized resources for the U.S. Border Patrol (USBP) as part of its goal of controlling illegal immigration. The 1990 legislation was expansive but also included some funding for border enforcement (Tichenor, 2002). IIRIRA also included enforcement funding, and was partially an attempt to address the perceived inability of IRCA to control illegal immigration. IIRIRA also denied judicial review for many deportation orders and was followed by an increase in criminal deportations in FYs 1998 and 1999 (Johnson, 2003).

Toward the end of the 1990s and in 2000, a tight labor market fueled interest in alternative sources of labor such as guestworker programs (see Section 2), and President Bush discussed the

²⁴ This law amended the Immigration and Nationality Act to among other things set immigration levels, allocate visas for family-sponsored immigrants, provide for diversity visas, allocate some employment-based visas (with no reference to the H-2A program), create a new naturalization system, and other provisions. See <http://www.thomas.gov/cgi-bin/bdquery/z?d101:SN00358:@@D&summ2=3&>. Accessed July 8, 2010.

possibility of a more open border with President Fox of Mexico. These discussions were apparently derailed by September 11, 2001, which also created another major impetus for border control that would further impact immigration policy. Congressional mandates and government reports by the 9/11 Commission and the Justice Department's Office of the Inspector General (in 2000 and 2002) directed policy attention and funding to the Northern Border, perhaps in part due to concern that terrorists had entered the country through Canada.

The PATRIOT Act of 2001²⁵ authorized tripling the number of Northern Border agents, and the Intelligence Reform and Terrorism Prevention Act²⁶ required the assignment of 20% of USBP's annual staff increases to the Northern Border. While the number of agents has grown since then, not all targets were met (Nuñez-Neto, 2008). The USBP moved to the U.S. Department of Homeland Security (DHS) in 2002 and presented a new strategy in 2005 focused on terrorism (Bruno, 2009), which emphasized illegal entry and smuggling, crime reduction in border communities, and the Northern Border (Nuñez-Neto, 2008). Yet apprehensions on the Northern Border declined steadily from 2004 to 2007. In summer, 2007, the Bush Administration announced initiatives "to improve border security, work site enforcement, and the modernized worker programs" (Sequeira, 2008, p. 8). Apprehensions rose again in 2008.

2. Employee Identification

Tichenor (2002) identifies the failure to create an employee identification system as a factor limiting IRCA's effectiveness. Today some growers say the absence of a workable system makes it harder to hire. Creating such a mechanism has been administratively and politically

²⁵ The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept And Obstruct Terrorism (USA PATRIOT) Act (P.L. 107-56) was designed to control and deter terrorism. Title IV, Subtitle A, concerned the Northern Border. Retrieved July 8, 2010, from http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_cong_public_laws&docid=f:publ056.107.pdf.

²⁶ This act, passed in 2004 and amended in 2006, addressed intelligence and terrorism in a number of ways and included provisions related to border security. See <http://www.thomas.gov/cgi-bin/query/D?c108:1:./temp/~c108OEctQT::>

challenging partly because of discrimination and civil rights concerns. For example, the Hispanic Caucus raised civil rights objections to identification cards (Tichenor, 2002) proposed in debate on the Immigration Act of 1990. Another approach often debated is national registries.

The current efforts to create a system now called E-Verify²⁷ date from pilot programs provided for in IIRIRA in 1996 (Levine, 2007) on a limited basis, which were expanded to all states in 2003 and later replaced by a web system (Westat, 2007).

The Obama Administration is emphasizing E-Verify, but the Bush Administration sought to utilize social security numbers as a tool for immigration enforcement. While the U.S. Social Security Administration (SSA) letters informing employers that social security numbers they submit for workers do not match any in the database were apparently intended to reduce unallocated funds, Mehta, Theodore, and Hincapié argued in 2003 that they became “*de facto* immigration enforcement” mechanisms (p. 11) that caused far more dismissals than Immigration and Naturalization Service raids, in part because of employer confusion about the letters.²⁸ The Bush Administration saw social security numbers as a resource for immigration control.²⁹ Its “safe harbor rule” was first proposed by DHS in 2006 to identify procedures employers should follow if they received a no-match letter (Levine, 2007) and drew opposition from different groups concerned about job loss and burden on employers.³⁰ The AFL-CIO filed suit to block the first final rule in 2007 (Levine, 2007). The district court that granted a preliminary injunction in fall 2007 noted among other issues that DHS insufficiently justified a change in position that

²⁷ An electronic system to determine whether a prospective employee is eligible for work.

²⁸ In 2002, SSA began sending letters to employers with *any* unmatched numbers rather than the previous practice of sending them to employers with 10 such numbers accounting for over 10% of their payroll, but stopped this practice again in 2003.

²⁹ Federal Register, pp. 63843-63867. Retrieved May 17, 2010, from <http://edocket.access.gpo.gov/2008/pdf/E8-25544.pdf>. Also U.S. Department of Homeland Security, 8 CFR Part 274a [RIN 1653-AA501 ICE 2377-06 DHS Docket No. ICEB-2006-0004]. Safe Harbor Procedures for Employers Who Receive a No-Match Letter: Clarification; Final Regulatory Flexibility Analysis. Retrieved May 8, 2010, from http://www.dhs.gov/xlibrary/assets/ice_no_match_letter_finalrule.pdf.

³⁰ See <http://www.regulations.gov/search/Regs/home.html#docketDetail?R=ICEB-2006-0004>.

“a no-match letter may be sufficient, by itself, to put an employer on notice, and thus impart constructive knowledge.”³¹ A new rulemaking process culminated in a final 2008 rule, which sought to provide a safe harbor by identifying steps employers could take so government would not later take enforcement action but indicated the agency could pursue sanctions for employers that knowingly continued to hire.³² In 2009, Secretary Janet Napolitano announced DHS would rescind the no-match rule “in favor of the more modern and effective E-Verify system.”³³ The final rescission was issued in October 2009.³⁴

A separate policy change will result in the creation of a registry specifically for farmworkers. The February 2010 H-2A regulatory changes (see Section B) provided for the registry to “improve U.S. worker access to agricultural jobs and help growers find workers from across the U.S.” (ETA, 2010).

B. Immigration Policy to Expand Farmworker Supply

Any immigration policy that expands supply could potentially increase the size of the farm labor force. For example, two New York growers reported that they had hired workers admitted legally to the country following a devastating hurricane in their home many years ago. However, policy specifically designed to create a pool of legal farmworkers has changed little since 1986. In that year IRCA, a major immigration law intended to be restrictive in nature, both revised the guestworker program and created other two agricultural worker programs (one of which was

³¹ See Department Of Homeland Security. 8 CFR Part 274a [RIN 1653-AA501 ICE 2377-06 DHS Docket No. ICEB-2006-0004 Safe Harbor Procedures for Employers Who Receive a No-Match Letter: Clarification; Final Regulatory Flexibility Analysis, p 5. Retrieved July 12, 2010, from http://www.dhs.gov/xlibrary/assets/ice_no_match_letter_finalrule.pdf on July 12.

³² “DHS outlines specific steps that reasonable employers may take in response to SSA no-match letters, and offers employers that follow those steps a safe harbor from ICE’S use of SSA no-match letters in any future enforcement action to demonstrate that an employer has knowingly employed unauthorized aliens in violation of section 274A of the Immigration and Nationality Act (INA), 8 U.S.C. 1324a..... DHS is authorized by the HSA and the INA to investigate and pursue sanctions against employers that knowingly hire or continue to employ unauthorized aliens or do not properly verify their employees’ employment eligibility” (pp. 11-12).

³³ Retrieved May 3, 2010, from http://www.dhs.gov/ynews/releases/pr_1247063976814.shtm.

³⁴ At http://www.dhs.gov/files/laws/gc_1209062535824.shtm

never implemented). Current pending legislation to revise the guestworker program (AgJOBS) has also been linked to major immigration legislation that stalled during the Bush Administration and is awaiting action now. This section describes these two policy areas.

1. Legislation to Legalize Farmworkers

The supply of farm labor was a central concern shaping IRCA (Zolberg, 2006, Tichenor, 2002, and Martin, 2009). While a key provision of the law was an amnesty for individuals in the country illegally for at least five years (Martin, 2009), there was a Special Agricultural Workers (SAW) program providing the opportunity to workers who could show agricultural employment prior to 1985-86 for 90 days to apply for legal status. A change following fears of a worker shortage during the strawberry harvest in Oregon in 1987 allowed workers to come to the U.S. border to explain farm work without records, allowing over 100,000 Mexicans to obtain authorization to work while preparing SAW applications (Martin, 2009). In total, under SAW, 750,000 Mexican men, 135,000 Mexican women, and 200,000 from other countries, or 1.1 million total, became legal U.S. immigrants. In response to arguments that these workers would leave farm work, Congress included a Replenishment Agricultural Worker (RAW) program in IRCA to provide for an additional supply of foreign workers if they were needed in the future. It was never used because agencies responsible for invoking the program found no shortage of workers to trigger its implementation (Emerson, 2007).

Proposed legislation called AgJOBS first incorporated a RAW-like program for legal status in the 1999-2000 session of Congress (Martin, 2009). The current version, AgJobs 2009, provides for blue cards as a two-step path toward legalization. It would create a legal supply boost, like IRCA, with a total of 1.35 million cards in a period of five years. Eligibility would be based on the ability to demonstrate either a minimum of hours or days of farm work or of

earnings in farm work and then continued work in three to five years after enactment for 100 or 150 days per year (Bruno, 2009). Card holders also would be allowed to work in other industries during this period.³⁵

AgJOBS is both a standalone bill and has been folded into different proposals for broader immigration reform. Such proposals have also included other guestworker and legalization possibilities, such as visas explicitly for previously unauthorized workers and other more specific guestworker programs.

2. Guest Worker Programs

The H-2A visa became a program for agricultural workers distinct from the H-2B visa in 1986 as part of the IRCA (Griffith, 2006), which also streamlined the program (Heppel, 1995). Although growers' organizations have repeatedly called for new guestworker programs or changes to ease requirements for employers who use H-2A at least since 1996, the only legislative change since IRCA was a minor 1999 revision requiring that applications be processed 10 days before the date of need rather than 20. Regulatory revisions were first proposed in 2008, and current new regulations were finalized in February 2010. Like the RAW program, the H-2A program is often portrayed as a "safety valve" or a backup plan designed to increase the certainty of employers facing supply disruptions.

The H-2A program inherits some of its framework from World War II-era temporary foreign worker programs. An "Emergency Labor Supply Program" was in place until two years after the war (Hahamovitch, 1997); under it, the federal government assumed many expenses and administrative tasks including bringing in and repatriating workers. The *bracero* program for

³⁵ Senator Chambliss of Georgia, who has opposed AgJOBS, proposed blue cards in S. 2087 in the 109th Congress but did not include an opportunity to change immigration status and required that workers go home after two years, while also allowing some to exit and reenter the country daily.

Mexican workers extended well beyond the war until 1964.³⁶ The H-2 program, which involved a more limited role than the Emergency Program, was provided for by Public Law 78 of 1951 and contracts negotiated between the U.S. and individual governments (Hahamovitch 2001).

Since IRCA, farm interests have advanced proposals to create new agricultural guestworker programs with the argument that they were necessary to stabilize the workforce as, or if, border control and other enforcement affected supply. These were considered extensively in Congressional hearings in the late 1990s and in some cases beyond the hearing stage,³⁷ but worker advocates and others were able to defeat them. Growers and workers began negotiating in 1999 to move beyond this stalemate, eventually producing a bill to revise H-2A and create a two-stage legalization process. In later iterations the legislation expanded to address concerns of western growers regarding certification, housing requirements, and wages (Martin, 2009). The current version of (AgJOBS 2009) would ease the process of demonstrating need for foreign workers, freeze wage levels and change requirements such as housing, and provide a path to legalization contingent upon employment in agriculture.

AgJOBS has backing from some grower³⁸ and worker groups though grower support is uneven (Griffith, 2005) partly because labor needs and preferences vary with crop and region, and the general difficulty of immigration politics has also stymied the bill. President Obama co-sponsored the bill as a Senator.³⁹

³⁶ This government program brought in Mexican workers for employment in agriculture and the railroad industry from 1942-1964.

³⁷ An amendment by Rep. Pombo (CA) for a program of up to 250,000 workers, opposed by the Clinton Administration, was approved by the House Agriculture Committee in March 1996 (Schmitt, 1996) but defeated in the House of Representatives (Gilbert, 2005).

³⁸ As of May 2010, farmer interests supporting AgJOBS include the U.S. Apple Association, whose members are longtime users of the H-2A program, the National Council of Agricultural Employers, and important state-level organizations such as the Florida Fruit and Vegetable Association. The American Farm Bureau has not endorsed it.

³⁹ See <http://www.thomas.gov/cgi-bin/bdquery/z?d110:SN00237:@@P>. See also Martin, 2009.

In December 2008, the Bush Administration published final rules revising the H-2A program that were effective January 17, 2009.⁴⁰ These joint DHS and DOL regulations replaced the process of certification (in which the DOL certifies that insufficient workers are available and U.S. workers will not be adversely affected by foreign workers) with a requirement that employers attest compliance with program requirements and submit a preliminary recruitment report. The rules also changed the calculation of the Adverse Effect Wage Rate that must be paid to H-2A workers, requiring the use of the DOL Bureau of Labor Statistics Occupational Employment Survey rather than USDA data, with the goal of setting the wage at the “prevailing wage rate”, and diminished the role of State Workforce Agencies in the process (Bruno, 2009). In addition the regulations changed some requirements intended to prevent the program from adversely affecting U.S. workers and at the same time enhanced enforcement.

The Obama Administration suspended these rules shortly after taking office, but after a grower lawsuit, a court ordered that they remain in place for the harvest. The Obama Administration initiated a new rulemaking process that led to final regulations replacing the 2009 version, effective in March 2010, which in some respects return to those rules issued by the Reagan Administration in 1987 after H-2A was created. The 2010 rule also retained some 2008 provisions for expanded enforcement, broadened related authority of DOL’s Wage and Hour Division, and restored or enhanced language intended to avoid adverse effects of the program on U.S. workers. The table below compares the 2010 rule, the 2009 rule, and AgJobs in terms of some areas of past disagreement over the program, which include wages, employer attestation vs. certification of applications, housing, and occupations or industry subsectors covered.

⁴⁰ See Federal Register, Tuesday, March 17, 2009. Vol. 74, No. 50. Proposed Rules 11408.

Overview of H-2A Regulations and AgJOBS Legislation⁴¹

<p>Wages:</p> <ul style="list-style-type: none"> • 2008 regulations use Occupational Employment Statistics as basis for wage rates, lowering wages; 1987 and 2010 use the USDA Farm Labor Survey. • AgJOBS would continue using the AEWB but freeze the wage for 3 years. 	<p>Mechanisms for approval of job orders:</p> <ul style="list-style-type: none"> • 2008 regulations replaced certification of H-2A job orders based on a demonstrated inability to find workers with attestation procedure with fewer requirements and diminished the role of State Workforce Agencies (SWA); the 2010 final regulation returns to certification and an SWA role and creates a registry of workers. • AgJOBS 2009 replaces certification with an attestation requirement to describe jobs and make “specified labor assurances” that differ for jobs covered and not covered by collective bargaining agreements. 	<p>Housing:</p> <ul style="list-style-type: none"> • Inspection of housing prior to issuance of certification is required under 1987 and 2010 regulations but not 2008. The 2010 rule clarifies that workers in comparable employment receive housing.⁴² • AgJOBS would permit employers to provide allowances for housing only, if the state governor certifies availability of housing. 	<p>Coverage of Program</p> <ul style="list-style-type: none"> • No cap in program under any regulations or the AgJOBS proposal (past legislative proposals for new agricultural guestworker programs specified numbers of workers) • Changes in job categories: 2008 regulations reclassify logging from H-2B to H-2A. The 2010 final rule maintains the change, but dropped a proposal to add other forestry-related occupations, and maintains special provisions for “shepherders, custom harvesters, and other unique agricultural occupations.”⁴³ • AgJOBS extends H-2A to year-round dairy workers. Despite comments requesting this, 2010 regulations did not include dairy.
--	--	---	--

C. Policies to Improve Living and Workplace Standards

Labor standards and social programs both contribute to and mitigate the work conditions and poverty of farmworkers. After the exclusion of farmworkers from key labor legislation in the 1930s, two expansions of labor standards coverage and social programs targeting farmworkers were enacted in the 1960s and 1970s. This was an era of national attention to farmworkers: in

⁴¹ Information on AgJOBS from (Bruno, 2009; Martin, 2009; and Library of Congress (<http://www.thomas.gov/cgi-bin/bdquery/z?d111:HR02414:@@L&summ2=m&/bss/111search.html>)). Information on regulations from ETA.

⁴² “In addition, the NPRM proposed to clarify that the employer’s obligation to provide housing extends both to H-2A workers and to workers in corresponding employment who are not reasonably able to return to their residence within the same day.”

⁴³ Employment and Training Administration (March 2010) “Frequently Asked Questions.” Office of Foreign Labor Certification. On history see ETA Field Memorandum No. 24-01, August 1, 2001. “Special Procedures: Labor Certification for Shepherders and Goatherders under the H-2A Program.”

1960 the television documentary “The Harvest of Shame” focused on their plight, and the War on Poverty, beginning in 1964, coincided with rising concern about this group (Martin, 2009) and with the end of the *bracero* program. Since 1986, little has changed in federal law in this area with regard to farmworkers.

The question of how labor standards and social programs might affect labor supply becomes extremely complicated in the case of farmworkers because their coverage or exclusion from them is so complicated, varying by occupation, immigrant status, and employer size, among other criteria (Ontiveros, 2007).⁴⁴ Coverage differences according to jobs mean one farm subsector or even the same task (e.g., packing as described in the next section) may or may not be entitled to overtime (Schell, 2002). In addition, H-2A workers are covered by a different set of requirements including a higher wage, but others doing comparable employment on a farm in many cases must receive the same benefits as the H-2A workers. This creates a motivation to maintain separate workforces. Undocumented farmworkers face a double barrier, as neither the occupation nor the immigration status has protection. Both the NLRA’s exclusion of agricultural workers and the Supreme Court’s *Hoffman* decision in 2002 (Ontiveros, 2007) related to the ability of undocumented workers to organize limit the ability of farmworkers to bargain collectively unless state law provides bargaining rights.⁴⁵ These complexities mean workers on the same farm could potentially face very different outcomes because of the policy framework affecting them.

Many federal social programs target only workers who migrate, thus leaving out the growing group of settled farmworkers. Different farmworker programs have different eligibility rules,

⁴⁴ See Ontiveros (2007) for categories of exclusions under labor law especially applying to immigrant women.

⁴⁵ In 2002, the *Hoffman Plastics, Inc. v. National Labor Relations Board* (533 U.S. 137) decision by the Supreme Court upheld illegal firing of workers who tried to form a union because of undocumented status because providing back pay would “trench on” immigration laws.

some related to immigration status and some due to their inability to meet the needs of the full target population (Martin, 2009). Many farmworkers are also excluded from federal means-tested poverty-alleviation programs that restrict immigrant access (though states have some discretion). There has also been in at least one case government action to prevent farmworkers from being excluded from other programs and to ensure assistance to them: in 1974, a court order required the establishment of a “Monitor Advocate” function in the U.S. DOL and a requirement that the Department provide “equitable services, benefits, and protection” to Migrant and Seasonal Farmworkers (MSFWs) following complaints against the Rural Manpower Service and U.S. Employment Service.⁴⁶ This followed longstanding tension over the Labor Department’s role in the allocation of farm labor that still exists today in relation to the Department’s role in the H-2A program.

The different ways these programs and requirements apply to different groups, and the finite funding and reach for programs and standards enforcement, affect which workers are able to continue in farm work despite the low annual incomes and flat wages most earn, which are able to find alternative employment, and which cost employers more. This section describes these policies and suggests how they might relate to supply and demand.

1. Labor Standards

Many worker advocates argue that better working conditions would increase worker supply, which might imply that more stringent labor standards would do so. To the extent it saves labor costs, a separate set of standards for farmworkers might raise demand for workers. In fact, growers argue that if such exclusions are removed or changed, for example, through the extension of overtime pay being considered in the New York State legislature, demand for

⁴⁶ “History of MSFW Program.” Retrieved June 14, 2010, from <http://jfs.ohio.gov/Agriculture/HISTORYOFMSFWPRORAM.PDF>.

workers will decrease because labor will become unaffordable. Historically, labor standards exclusions have operated to produce supply as well:⁴⁷ for example, the farmworker exemption from child labor restrictions in 1938 allowed children to continue working in agriculture.

One issue mentioned on occasion in two decades of policy discussion of farm labor supply is that unauthorized workers are a readily exploitable population, who will work for substandard wages and, therefore, may drive down wages and conditions in a labor sector. Less often, mention is made of the importance of enforcing labor standards to prevent that from happening.

a. Federal

Farm and domestic workers were excluded from major legislation enacted in the 1930s to provide bargaining rights, child labor law protection, and wage and hour requirements as part of a compromise with Southern lawmakers (Domhoff, 1990). Standards applying to farmworkers have been added in a piecemeal fashion over the years yet remain quite different than those for other workers.

Farmworkers are excluded from rights to organize and bargain collectively that are protected in the NLRA of 1935 (Wiggins, 2009), but California and a few other states have extended such rights to farmworkers. Farmworkers' exemption from the FLSA's minimum wage and overtime requirements in 1938 to some has set the tone for its exceptional status under the law since (Wedemeyer, 2007). Subsequent legislation in 1966 included farmworkers in minimum wage protections (but not overtime) with a lower rate than other workers; in 1977, the federal minimum wage was guaranteed for workers at larger farms (Schell, 2002).

Despite these expansions, many smaller farms are exempt from a number of standards in the law (Schell, 2002). Farmworkers generally still do not receive overtime pay, though overtime

⁴⁷ As pointed out by a longtime worker advocate interviewed for this report.

coverage is applicable for certain industry and occupation descriptions. For example, for packing and processing workers, it depends on whether the entity packs only the owner's commodities (agriculture labor and thus not covered) or packs produce from other farmers as well (nonagricultural labor and covered) (Schell, 2002); similarly, the former category is covered under H-2A and the latter in the H-2B program for nonagricultural seasonal workers. Workers may receive piece rates, but wages are not intended to fall below the minimum wage when they are paid in this manner. Child labor laws for agriculture differ from those in other industries under rules added in 1966 after passage of child labor laws in 1938. For certain types of work outside school hours under certain conditions (i.e., working with parents or applying for waivers) children are permitted to work at younger ages than in other industries and to perform hazardous tasks over the age of 16 (Schell, 2002).⁴⁸

A 1978 amendment to the Social Security Act included farmworkers in unemployment compensation, with coverage exemptions based on size and period of hire (Schell, 2002). Other legislation has addressed the conditions of farm work separately. In 1963, the Farm Labor Contractor Registration Act responded to awareness that contractors were often associated with poor conditions. In 1983, the Migrant and Seasonal Agricultural Worker Protection Act (MSPA) replaced this law and extended obligations to growers by designating most workers as employees rather than independent contractors and growers as joint employers with farm labor contractors (Wiggins, 2009). The MSPA required minimum standards for housing, employment, and transportation. It maintained contractor requirements in the Farm Labor Contractor Registration Act and required employers to verify that contractors are registered.

⁴⁸ The Children's Act for Responsible Employment of 2009 has been introduced to expand restrictions against hiring children in agriculture. See <http://www.thomas.gov/cgi-bin/bdquery/D?d111:1:/temp/~bdsjTg:@@D&summ2=m&/home/LegislativeData.php>. Retrieved July 8, 2010.

Executive policy changes since 1986 affecting farmworkers (Wiggins, 2009) include a 1987 requirement by the Occupational Safety and Health Administration (OSHA) that employers of 11 farmworkers or more provide drinking water and toilet and hand-washing facilities, which followed over a decade of federal litigation over the absence of standards for most agriculture jobs following the Occupational Safety and Health Act of 1970. With regard to pesticide exposure, a common hazard for farm work, the Field Sanitation Standard of 1987 exempts workers on small farms. The U.S. Environmental Protection Agency revised the Worker Protection Standard for Agricultural Pesticides in 1992.⁴⁹

b. State

New York has legislated a higher level of protection for farmworkers than most states (Schell, 2002). Although fifteen states do not require workers compensation for farmworkers, compensation in the case of injury on the job is guaranteed in New York for most farms.⁵⁰ Farm laborers who have worked in the country legally for 20 or more weeks in the prior year are eligible for unemployment insurance.⁵¹ New York passed legislation in 1998 extending equal minimum wage protection to farmworkers and mandating sanitation in the fields⁵² with a stricter requirement than the federal standard (Wiggins, 2009, p. 206). The Farmworker Fair Labor Practices Act, which would provide collective bargaining rights and overtime pay, passed the State Assembly most recently in June 2009, and is currently pending in the State Senate.⁵³

⁴⁹ See <http://www.epa.gov/opp00001/health/worker.htm>. Retrieved July 8, 2010. Wiggins (2009) argues there is no system to track exposure.

⁵⁰ In New York, workers compensation is for farms with a payroll of \$1,200 or more in the calendar year but excludes farmers' spouses and children not under contract. <http://www.wcb.state.ny.us/content/main/onthejob/CoverageSituations/farms.jsp>. Retrieved September 10, 2009. Compensation entails "full payment of medical expenses and in many cases partial payment of lost wages." See <http://www.farmworkerlegalservices.com/Legal%20Rights%20of%20Farmworkers.pdf>. Retrieved July 8, 2010.

⁵¹ <http://www.farmworkerlegalservices.com/Legal%20Rights%20of%20Farmworkers.pdf>. Retrieved July 8, 2010.

⁵² See <http://www.justiceforfarmworkers.org/pages/history.html>. Retrieved September 10, 2009.

⁵³ See <http://assembly.state.ny.us/leg/?bn=A01867>. Retrieved October 3, 2009.

2. Social Programs

In total, federal spending is at least \$1 billion annually on programs to help farmworkers and their children (Martin, 2009). Programs targeting migrants focus on education including Head Start, job training, and health. Eligibility rules differ, and programs serve a small portion of their potential target. Federal programs generally target migrants (MSFWs) who have moved certain minimum distances within certain time periods. New York State has its own services including a farmworker health program begun in the 1980s and a child care program, which is unusual in that it serves other eligible farmworkers (such as settled workers) in addition to MSFWs.⁵⁴ In interviews, one respondent who places workers reported that this Agribusiness Child Development Program is an attraction for women seeking farm jobs, and housing is another benefit that draws people into the occupation. Federal and other government funds support farmworker housing and government regulates it both for migrants and H-2A workers (described in Section IVD). Training programs such as the National Farmworker Jobs Training Program could potentially affect supply in several ways for farmworkers by helping people gain skills needed to move out of the industry, by preparing people for skilled jobs within the industry, and by providing “supportive services that help farmworkers remain and stabilize their employment in agriculture.”⁵⁵ DOL services may also help workers find employment that bridges the gap between seasons among other services. Within the Department, as noted in the introduction to this section, the Monitor Advocate’s office has sought to ensure that all such services are provided equitably to farmers since the 1970s.

⁵⁴ See

http://us.mc560.mail.yahoo.com/mc/welcome?.gx=1&.tm=1275482791&.rand=547dtvbf1saq#_pg=showFolder&fid=%2540B%2540Bulk&order=down&tt=41&pSize=50&.rand=1058643570&hash=b28d30d83891bc350d4ec3ad710d4fc0&.jsrand=3557204

⁵⁵ ETA (November 2009). National Farmworker Jobs Program Fact Sheet. Retrieved May 26, 2010, from <http://www.doleta.gov/MSFW/pdf/TwoPager-11-2009.pdf>.

One area of social policy change affecting farmworkers is rules about immigrant eligibility. This has long been a point of contention. For example, Reagan and his allies worried about whether the cost of social programs would rise once undocumented immigrants took the opportunity for amnesty and gained citizenship after IRCA. They were particularly interested in making sure legalized immigrants were not eligible for welfare too soon (Tichenor, 2002). In 1996, the IIRIRA and the Personal Responsibility and Work Opportunity Act cut immigrant access to public benefits, but political reactions from immigrant and Latino voters helped to stem further federal legislation in this direction and contributed to removal of some restrictions. In 1997, Supplemental Security Income was restored to many immigrants in the country prior to 1996, and in 1998, immigrants regained food stamp eligibility. Many states have also chosen to provide assistance to immigrants (Tichenor, 2002, p. 287). “Nonimmigrants” under the H-2A guest worker visa program are not generally eligible for federal public assistance aside from Medicaid emergency services (Bruno, 2009).

IV. Policy and Local Farm Labor Market Dynamics

Section III pointed to areas in which policy may be related to farm labor supply and demand. This section presents findings from in-depth interviews conducted in New York State on how local actors view shortages and surplus of farm labor. Qualitative findings also suggest how policy and labor markets might be connected in practice with a discussion of workforce organization and an example of links among farmworker housing, policy, and labor supply.

A. New York’s Shortages and Surplus

A 2008 survey of New York State farms and agricultural representatives found either adequate supply or surplus in the state that year but ongoing uncertainty about supply because of immigration enforcement and perceived lack of skilled workers (Maloney, Smith,

& Dudley, 2009). The survey report pointed out the availability of unemployed workers especially in western New York but questioned their willingness to do farm work and cited employer concerns about training these workers. Interviews with employers for this study yielded similar findings. In addition, employers emphasized policy constraints on documented worker supply, in some cases, a surplus of undocumented labor, and in two cases, challenges finding skilled workers. Some employers stressed the perceived inadequacies of the unemployed or other local groups some might consider prospective labor.

Several employers said their workers had papers but they could not be sure the workers all are eligible to work, and they spoke of how immigration activities such as raids and audits had affected their workforce (see next section). One employer interviewed in fall 2009 cited a period when he was worried on a daily basis about where to find labor: “Three, four, five years ago there was nobody” but noted that today there are more people looking for workers than he has seen in perhaps ten years. Another employer echoed a common theme that labor supplies the farm relied on before Mexican workers were the majority of its labor force preferred to be on “welfare” or did not want to work.

Shortage of which? Of farmworkers? Yes. ...Locally we just don't have the people with the skills to harvest, plant. They're not willing to work the hours ...basically during the planting season we start at 7 and work [un]til 8, we plant every day. It probably goes on about a month. If it's not raining we're planting. If it rains and we start after lunch, we start after lunch...people that work every day when there's work available.

There was some evidence that the recession had drawn workers from other industries, which key informants had predicted. One grower reported that during the late-1990s tight economy, a worker who typically migrated from Florida stayed there for construction work. Two workers had previously been in construction. One did not like the work and was taken advantage of by an employer, so he found a year-round farm job. Another worker had held a range of jobs in a

large city, and after being laid off there from a factory came to rural New York because of contact with family acquaintances. He reported that many are returning to farm work from other jobs.

Reports of people who seek farm work unsuccessfully were more common from employees of service and advocacy organizations who interact with workers. Citing the likelihood that local people apply for farm jobs without success, one advocate reported speaking to workers who no longer bothered to apply for jobs at farms that hired H-2A workers. A service worker reported that in fall 2009 there was a surge of people looking for jobs at the conclusion of the harvest, as the work that usually sustained them off-season (for example, in restaurants or retail) was not available this year. A different kind of surplus, which some have argued is common to the industry, involves waiting. An advocate indicated that a large employer sometimes promised work to encourage employees to stay but did not provide it. One worker staying in employer housing with no work was more or less stranded because he had recently arrived from Mexico, too late in the harvest season, and his colleague stayed in the same employer housing without work after an injury in the fields in order to receive care and wages (apparently through workers compensation and with the employer's assistance). Others wait for weather to change to return to the fields to earn. At the end of the season, workers wait until they can arrange transportation to the next job.

Yet many farmworkers said people are always able to find farm work, or they had not generally had trouble. One person at a service agency said workers return to it because they can always get a job. While many workers believed they could return to the same farm for next year's harvest, two first-time workers preparing to depart said that people always come, so their

large employer does not have to worry about finding people year to year. At the conclusion of the 2009 harvest, arrangements for many workers were in flux.

B. The Organization of Farm Workforces

A range of factors shape labor needs and workforce organization, including the mix of crops, mechanization level, local worker networks and supply, housing, climate, and employer preferences. As shown, policy influences include local variation in immigration policy, practices of local government actors involved in extension, immigration, or labor issues, and the overall regulatory framework for the occupation. These can shape employer decisions about labor.

Information about different groups of workers emerged in interviews with employers, workers, and staff of organizations that advocate for or provide services to workers. The shifting makeup of farmworkers contributes to changes in workforce organization. Farms typically employ a handful of year-round or nearly year-round workers and a larger number of seasonal workers. The share of migrants in these regions has declined, according to several informants, as more settle. However, a key informant who conducts research in the industry suggested the imprecision of such categories, as workers do not necessarily know how long they will stay:

Because of immigration enforcement people who used to go home once or twice a year have been here for 6, 8, 10 years The whole business of settled or not settled is very much upset by immigration enforcement.

A minority of workers interviewed harvest several crops in several states or follow the crops (FTC) along the Eastern Seaboard as many workers did historically. Consistent with NAWS data, more workers, especially longer-term farmworkers, move between one New York location and another state, often Florida.⁵⁶ At least one worker had transitioned from FTC status to a more settled status but still shuttled between two locations.

⁵⁶ It is possible that the qualitative sample was skewed toward more stable workers with longer histories in the area because these are more likely to be aware of the service organizations through which they were reached.

Most farmers reported that their non-H-2A workers are primarily Mexican or Mexican-American. Key informants reported a much smaller number of Guatemalan, Haitian, and Puerto Rican workers in the state (and two Guatemalan workers were in the sample). The growing employment of H-2A workers in the state includes Jamaican and Mexican workers. Jamaican workers have long been a central part of the New York apple harvest (Griffith, 2006), but on two farms, Mexican H-2A workers harvested apples. The employment of H-2A workers in vegetables and Mexican H-2A workers in apples may be growing. One grower reported H-2A workers from other countries over two decades ago.

In New York the presence of Mexican workers is more recent than in western states. Historically African American migrant workers from the south had an important presence in the state. For example from World War II until IRCA, most migrant workers in apple production in Wayne County were from this group (Heppel & Amendola 1992). Many respondents in this study described a similar succession of workers from the 1970s onward, which included this earlier presence of African-American migrants, smaller numbers of other immigrant groups such as Central Americans or Haitians,⁵⁷ some hiring of local students who previously worked on farms as a matter of local practice (in the 1970s or 1980s for example), to a lesser degree an earlier presence of retired people,⁵⁸ and finally the increasing presence of Mexican workers for at least the last twenty years. There was some variation in the list reflecting ad hoc solutions to assembling a workforce. For example, one farmer reported hiring hippies when the Vietnam War depleted the labor force. Many farmers said that students and retirees could not help them much with seasonal work for various reasons, though several mentioned an exception to this

⁵⁷ Haitians were in the migrant stream from Florida in the 1980s following boat lifts (Heppel & Amendola 1992).

⁵⁸ One grower had hired retired or semi-retired coal miners from outside the state.

rule.⁵⁹ Some tie this to a cultural shift. For instance, one farmer said that local teens who occasionally do work for him do not want to tell people they work on the farm, instead saying they work in the market, because the presence of migrants means people “do not want tobe stereotyped as farm labor.” Supervisors were often “Anglo” locals and settled Mexicans.

Although shortages are often associated with the seasonality of labor needs, one farmer reported that it was very hard to find full-time workers. Several have one or more highly valued long-term employees, some of whom act as liaisons to other labor especially for hiring. Employee preferences also affect whether they are attracted to long-term employment or to return to the area, though some workers certainly have fewer choices than others. Weather and opportunities elsewhere (i.e., in one case, the better quality of English as a Second Language instruction for children in Texas) are factors said to be related to some workers’ preferences to leave the state part of the year, whereas housing availability might provide a reason to stay for others. An expectation of higher wages in New York than Florida drew one seasonal worker.

The following remark from a vegetable grower is typical in terms of its reference to the uncertain status of workers.

There’s not enough people for all the jobs available. That’s what I would say. There’s always times when we could use a few hands but that’s something you just can’t find...We’re kinda lucky in one respect, we’ve had a group that’s been pretty reliable, it’s tough because, you know they’re afraid, and we’re afraid also. You invest virtually millions of dollars in your crop to plant your crop, and one day it could be all over because government could basically come in and take all your people. We hire people with all their paperwork and properly documented and all that but do we know for sure they’re legal, obviously not.

This speaker’s experience provides an example of how immigration control policy or local variations in its implementation can affect workforce organization. A visit in the mid-90s from immigration enforcement agents prevented the farmer from hiring the same workers the

⁵⁹ A small farmer who was not in the Hudson Valley or the Finger Lakes area, whose harvest is in the summer, hires only students, “housewives,” and other local workers.

following year. After one attempt at hiring H-2A went badly (the workers left) the farmer resumed hiring workers identified locally, through contacts in other states, or through labor contractors.

Immigration was uppermost in the minds of many interviewed but is a particular subject of concern in the Finger Lakes area. Respondents (growers, workers, and others) reported that workers in the 2009 harvest season and prior years have often been stopped while driving or around places of business and detained or deported as in the case of a farmer who reported losing some crops after 12 workers were deported.⁶⁰ One reason for this is the location of the Finger Lakes area within 100 miles of the border, where the USBP has expanded authority. Almost all workers in the Finger Lakes (but not the Hudson Valley) area knew one or several people who have been detained. However it is not always clear when speaking to growers or workers which agency stops immigrants, and the way local law enforcement handles encounters with immigrants varies. In the Hudson Valley, two farmers mentioned raids or audits over five years ago.

Immigration and other exogenous and policy factors influence the choices of growers as they cobble together different strategies to assure a labor force. For example, two farmers reported hiring a group of employees one year who were granted legal status after a hurricane in their home country. One of the farmers has employed Puerto Rican workers for years who return home off-season. The presence of Guatemalan workers in New York is a legacy of political turmoil in Central America. The economy and enhanced difficulty crossing the border also influence worker availability. Finally, there is even some legacy of the SAW program evidenced by the presence of a worker legalized through it in the Hudson Valley.

⁶⁰ Some local papers also reported raids or arrests in 2006 and 2007.

C. The Incorporation of the H-2A Program into Workforces

Use of the H-2A program and opinions about its value varied among farmers interviewed, though all but one who used it (and several who did not) said it was cumbersome or expensive. Extension and farm experts in one area said the profit margin on some vegetable crops was too low for farmers to be able afford to hire H-2A workers. In fact very few farmers use the H-2A program in Orange County, a center of onion growing.

Yet farmers and other experts did report an increase in the use of the H-2A program because of immigration enforcement. Several farmers interviewed had recently joined it. One cited extreme difficulty finding workers during the strong economy of a few years ago as the reason he and others in his area first used the program; he also said the work ethic of employees had suffered in the slack economy. One farmer who never had used the program took the step of completing the paperwork for 2009 but withdrew it. Most farmers employed migrants or settled workers (likely including many undocumented workers) either with H-2A or to compose an entire workforce. The importance of immigration enforcement in the Finger Lakes region for employer decisions is indicated in this quote from a farmer new to H-2A.

We've had a lot of immigration raids and had our help deported so we can no longer take the risk that the walk-in help will be adequate for our needs. Last year they took 12 people and they stopped ourharvest for about a week and we never got done.that was about a \$250,000 dollar loss.I feel we have no choice to get part of our workforce secured.

While immigration or the economy may be the impetus to begin hiring H-2A workers, many growers become accustomed to this workforce and continue drawing on it. At the same time, a key informant who works with farmers believes higher wages in new H-2A regulations may push growers out of the program in the future. Among farmers who did not use the H-2A program (about half the sample), one felt pushed to start and two said it was too costly, consistent with

findings of a survey of New York farmers (Maloney et al., 2009). A grower who views the program as a magnet for lawsuits had avoided it for many years until several seasons ago.

One farmer who had tried H-2A once over ten years ago (already mentioned) was disappointed. He said his workers came from a city in Mexico, were unprepared for farm work, and left on their own. The cooperative that helped process his application was able to find him new workers for that season. While this farmer was not involved in selecting the workers, it appears common today (based on grower and worker interviews) to hire the same workers through the program year after year. Networks come into play in recruiting. For example, one group of Mexican H-2A workers interviewed had obtained their jobs through a contact in their home town. Two Jamaican workers reported that at the season's end they may suggest names of other workers for the following year that their employer can then request.

Because of this preference for returning workers or at least referrals, restrictions against issuing H-2A visas to people who have worked in the country illegally are one factor that deters growers from using the program to hire Mexican workers. An interview with one farmer knowledgeable about the program in New York implied that over time previous undocumented workers have been less able to come in through the program, which means it brings in fewer workers with U.S. farm experience and thus is less attractive. Farm jobs may be seen as low-skill jobs, but farmers value rural experience and skills such as the commonly-mentioned ability to pick an apple without bruising it (companies that buy apples demand a very low percentage of bruising) and the ability to do very physically taxing work (often mentioned is lifting very heavy bags of apples). All H-2A workers interviewed were men.

Some Mexican workers seek to come to the U.S. with an H-2A visa after being in the country illegally despite the risks, which often fails, resulting in penalties that bar workers from applying

to the program for several years. Workers and growers complain about the sometimes corrupt process of obtaining a visa as being arbitrary, giving the impression that not only workers who were previously undocumented can be refused a visa but also workers who say the wrong thing (one group said they avoid wearing American-looking clothes with English words that hint at a previous U.S. presence). Some farmers hire agents to recruit in Mexico or manage the process. Farmers interviewed complain, as in settings such as Congressional hearings, that processing involves delays that threaten their harvest. In the 2009 and 2010 season, farmers and key informants reported more denials of applications for H-2A so that it has become more difficult to get the same workers again, though on appeal applications are usually approved. One expert who works with farmers predicts that this could drive farmers to abandon the program, while another said higher wages required under the new regulations would do so.

D. An Example of Policy Implementation: Housing

Government is involved in farmworker housing, which is important for attracting supply and is required by the H-2A program, in a number of ways. Government funds support housing construction and renovation; government inspects and licenses some housing, and regulations require that housing be provided to comparable workers where H-2A workers are employed. The perceived need to provide housing and related policy can become interspersed with workforce organization. For example, growers cited housing as a reason for preferring workers without families and men over women. With regard to H-2A, growers and their interest groups have sought to eliminate the requirement to provide worker housing in favor of providing allowances. There also may be conflict over controlling what happens at worker housing, often located on-farm, which in New York has involved the state: an opinion produced in the 1990s clarified that workers have rights of tenants in employer-provided housing, which means for

example that farmers do not have the right to restrict visitors. Housing can also be the site of immigration enforcement activity.

Workers Receiving Free Housing (NAWS data)		
	1993-94	2005-06
East	62%	27%
U.S.	28%	17%

The table above indicates that the share of workers who report that their employer provides free housing (though the worker may pay for utilities) has fallen since 1994. Many workers interviewed for this study were met in worker camps, and the great majority reported receiving free housing. Two paid for employer-provided housing, and it was not clear if workers in housing provided by contractors did or not. In New York, Rural Opportunities, Inc. reported in 2000 (Bucholz) that the number of farmworkers living off-farm was growing and that there were inadequate beds to meet demand. Both on-farm and off-farm housing was overcrowded, and funding from government at different levels was inadequate to provide assistance.

Many farmworkers in New York live in substandard conditions, and where the number of farmworkers has increased, the number of farm beds has not kept pace (Hamilton, 2010). Several individuals interviewed for this study cited the importance of housing for attracting a workforce. One person who helps farmworkers find jobs in the Hudson Valley area indicated that among mostly Mexican workers who lived in nearby relatively urbanized areas, housing was sometimes a motivation for applying for a farm job, yet farmers in that area are seeking to “get out of the housing business,” preferring to pay more instead. A worker in this area said housing was one factor keeping in a job about which he had complaints.

A key source of government funding for farmworker housing is the USDA 514/516 Rural Development – Farm Labor Housing Loan and Grant Program. It supports purchase, construction, improvement or repair (Wiggins, 2009) but does not serve H-2A workers and is limited to legally admitted residents and citizens, and funding levels are inadequate to meet demand (Hamilton, 2010). Other programs that are not reserved for farmworkers may serve them. These include the USDA Rural Housing Service Self-Help Technical Assistance Program (Section 523), which seeks to build homeownership with a “sweat equity” approach, and the U.S. Department of Housing and Urban Development (HUD) Rural Housing and Economic Development Program, which supports housing and economic development (Vallejos, Quandt, & Arcury, 2009). Other federal and state programs provide funding opportunities, including HUD block grants for community development and affordable housing,⁶¹ the Farmworker Housing Program (FHLP) created in 1995 and administered by the New York State Division of Housing and Community Renewal;⁶² and low income housing tax credits (Hamilton, 2010).

Though New York may have less funding assistance available for the improvement of farmworker housing than other states (Hamilton 2010), it is one of several eastern states with codes for migrant housing that are stronger than the federal OSHA standard (Schell, 2002). The MSPA sets minimum standards for housing (Hamilton 2010).

Farmers asked in interviews when they encountered government representatives frequently mentioned housing inspectors, along with people who audited records or inspected workplaces. Among workers, there were more reports of enforcement of housing than of any other

⁶¹ These include Community Development Block Grant funds that states and cities may use for housing and community projects benefiting low and moderate-income people and HOME federal block grant funds to state and localities to support low-income housing; both benefit some counties in farm regions. Farmworkers must be part of the state’s consolidated plan for funds to target this group; these funds also must be supplemented by others. (Hamilton 2010 and <http://www.hud.gov/offices/cpd/affordablehousing/programs/home/>, retrieved July 10, 2010).

⁶² See <http://www.nysdhcr.gov/Programs/FarmWorkerHousing/QandA.htm>. Retrieved July 15, 2010.

regulations. Inspection of housing for five or more migrant employees is conducted by the New York State Department of Health (DOH) through an agreement with the federal government, but the DOH does not inspect year-round housing (Bucholz, 2000). For H-2A workers, “processor housing,” and (if a violation is reported) housing for fewer than five workers, the U.S. DOL has jurisdiction over inspection prior to occupancy (Bucholz, 2000 and Hamilton, 2010).

H-2A housing is generally identifiable because it is listed on foreign certification applications. One advocate interviewed indicated that H-2A housing is more often inspected, and that farmers may seek to avoid inspection of migrant housing by saying it is for year-round workers. Hamilton (2010) included in a list of recommendations to improve farmworker housing in New York that inspectors treat year-round housing the same as seasonal, that county health departments visit all farms to identify unreported housing, and that housing be inspected after occupancy. The experience of one farmer interviewed for this study indicates that the goal of improving housing quality may be complicated by concern about immigration activity: he was surprised that his workers had been picked up by immigration officials while sitting in the driveway of housing he said he was not required to report because of the number of occupants.

Housing may structure the degree of interaction among the workforce as well, with groupings and divisions of workers that may correspond to the allocation of tasks on the farm. Workers employed by some large farms west and east of Rochester seemed not to know how the overall workforce of their farm was composed. Housing for the same business, like the land it farms, may be scattered around a large area, and housing may be organized by group. On one farm in the Finger Lakes area, living quarters were separate for Mexican and Jamaican H-2A workers, and the Mexican workers knew there were Jamaicans on the farm but not where they lived. Housing for migrant and year-round workers is often separate from H-2A housing. Finally, a

lack of space to accommodate families and the perceived and real tensions or difficulties resulting from having men and women in the same housing can contribute to a preference for hiring single men.

V. Discussion

This paper has shown that concerns about farm labor supply have consistently drawn the attention of federal policymakers since IRCA's passage, and calls on government to resolve labor shortages tend to occur in reaction to or anticipation of immigration policy change. While the nature of the available supply of farmworkers is affected by factors such as the economy, available job opportunities, and influences over migration such as the peso devaluation, it is also influenced in contradictory ways by policy in areas including but beyond immigration.

A. Policy and Farm Labor

Employers feel squeezed in a difficult, increasingly competitive industry and faced with limited options because of rising costs, limits on increasing prices, and the precarious legal status of the only workforce they believe to be viable. As immigration control efforts restrict access to this workforce, employers have increasingly drawn on another source of labor, the H-2A program, though some say they cannot afford it. While the nature of employer demand for labor is partially influenced by costs, the mix of crops, the degree of mechanization, and other factors, Section IV of the paper showed that policy can also eventually influence demand as it can shape the type and cost of workers available to employers making decisions about their workforces, the amount of regulation involved in hiring, and the likelihood that workers will be deported.

Familiarity with specific workers is an important part of employer preferences, and this research shows that employers place a premium on skills and experience with rural areas and farm work and also come to appreciate a certain group of workers as they build a history

working with them. Some growers interviewed for this research believe that American society no longer produces the work ethic and appreciation for farming necessary for good workers and pointed to many experiences with “locals” who were not good employees. Local (especially non-immigrant) workers rarely apply for jobs and in the view of farmers have begun to look down on farm work, while young people no longer have time for it. Growers themselves often work long hours and may have little patience for unwillingness to accept the erratic schedule of farm work. Thus in New York State, where the heavy presence of immigrants in farm work is more recent, farmers feel for many reasons that immigrants are a good option, and to some the only option, because of the unavailability or inadaptability of other workers. In this case, a remaining decision becomes whether to employ H-2A workers (and within that Mexican or Jamaican workers) or others.

Policy actors at the federal level describe the H-2A program, the use of which is increasing, as a safety valve or backup plan, but in fact it is not something that growers seem to use or not year to year as the economy or inability to find other workers encourages it. Instead, perhaps because of the advantages of a workforce that is certain to stay throughout the harvest, fear of losing undocumented workers, the investment of time and experience required, the planning for H-2A, or the fact that workers in the program become known and incorporated into a specific farm workforce, growers interviewed for this research who entered the program stayed in for subsequent years or in one case gave up after one season’s experience with it. Recourse to the program may in some cases be driven strictly by the economy and labor market, but depends more for most respondents on the level of immigration enforcement, given that raids and detainment of workers most often drove the first use of the H2a program.

The most prominent element that dissuaded employers from using H-2A was cost (while the adverse wage rate and housing, transportation, and other costs are high to some employers, the absence of certain employer taxes for H-2A employers is a cost-saving factor). The apple industry lends itself better to the program though some apple growers said they could not afford it. One employer stressed that he would not have jobs for a workforce he has spent years building if he hired through H-2A. This desire to hire the same workers, partly to save training time, is key in shaping both the use of H-2A and resistance to it. To some degree, the rural background of H-2A workers means some see them as qualified before being trained. Corruption in Mexico and the difficulty of bringing in workers who had been in the country before were concerns that influence the choice of Mexican or Jamaican workers, while some employers might hire workers from both countries.

Although farmers in New York are falling back on H-2A more, as the 2010 H-2A regulations are being implemented there are predictions that the higher wage rate they require or the perceived inability to hire the same workers year after year (because of experiences with application denials) may cause employers to stop using the H-2A program.

B. Improving the Situation of Farmworkers

Assessing worker conditions was not a research goal, but the study did show that wages have been flat while incomes have increased (perhaps due to more work time and longer hours) though well over a third surveyed by NAWS are below the poverty level. The share of workers who receive each of several key benefits ranges from about 25% to 40%. Seasonal and migrant (non-H-A) workers participating in qualitative interviews typically reported wages ranging from just under the federal minimum effective July 24, 2009⁶³ to around \$9 an hour, without overtime

⁶³ Several workers reported earning \$7.15 an hour, which was the minimum wage in 2009 prior to July 24.

pay and not during rain that prevents work (though some employers provide other indoor work when weather is bad). Most frequently they reported earning close to minimum wage, though one year-round worker earned \$10 an hour. Most did not receive health insurance but appeared to be covered by worker's compensation.

Just as policy solutions to the problem of farm labor supply involve finding new workers for the same jobs, often solutions to the dilemma of low-wage workers involve training workers for different jobs requiring a higher skill level rather than improving existing ones. Observers of farm labor markets also point out that if wages were higher there would be more mechanization of harvesting so less labor would be required. Yet it is crucial to farmworkers and their children, and more generally for how policymakers think about low-wage jobs, to seek to improve the conditions of farm jobs themselves, and others often categorized as low skill, in order to reduce turnover while improving living standards.

This study suggests areas to explore in order to learn how policy could contribute to improved conditions. As noted elsewhere (Kandel, 2008), this research indicates that some jobs (including those of H-2A workers) may be stretching out longer in the year with other tasks added to harvesting or the addition of greenhouse production. The workforce investment system already may help workers find employment that bridges harvest seasons or provide other services for those who prefer to stay in agriculture (while also offering training and services that can help workers leave the industry). Research on possibilities for leveraging the workforce system to work further with farmers and workers on creating jobs of longer duration, though these represent a minority of farm jobs, could be valuable. However, it would also be beneficial to study whether such farm jobs create sufficient economic security and job quality to merit policy investment, whether they are desired by employers or workers, or whether such efforts

can benefit both farmers and workers. This study indicates some workers may not wish to be employed year-round in New York agriculture: several interviewed did not want to stay in winter, and an employer said women packing workers preferred not to work in summer. Others believe workers want to return to Mexico in the off-season.

Immigration policy complicates efforts to improve jobs, just as the focus on immigration as a supply solution tends to obscure other policy areas. That is, many have argued that the presence of undocumented workers creates an incentive for exploitation that can bring down the floor of conditions for all workers. Yet fears of being detained for workers impede the enforcement of labor standards while the ongoing threat of having workers detained may make employers reluctant to have their records scrutinized or may create an incentive not to inform government of the presence of worker housing that otherwise should be inspected. Yet maintaining a focus on enforcement of labor, safety, housing, and other laws and regulations might diminish incentives to exploit workers.

The U.S. DOL in its implementation of the H-2A program is to determine “whether the employment of H-2A workers will adversely affect the wages and working conditions of workers in the U.S. similarly employed.”⁶⁴ This may in practice mean workers who are men, perhaps single men, and perhaps of a certain age. While this study did not seek to ascertain whether women had been turned away from farm work, there was evidence that women in farm work earn lower wages than men (NAWS data) and are generally assigned to tasks associated with women. Also, interviews suggested that employers often prefer not to have women or families in worker housing, that women are rarely hired for harvesting jobs, and, as shown in other studies, that women may be hired in connection with partners in the same labor force.

⁶⁴ Federal Register, Tuesday, March 17, 2009, Vol. 74, No. 50. Proposed Rules, p. 11410

More information on how women are incorporated into the farm workforce and whether they face discrimination in applying for farm jobs is needed.

Greater insight into how the H-2A program is used might shed more light on both how to meet labor needs of employers and possibilities for improving the situation of workers. Local government staff have expertise on how this program is used already, but program data collection could provide more information. For example, the job titles that are listed on H-2A applications are overlapping and not particularly meaningful, as they may or may not indicate whether workers harvest fruit or vegetables or work in horticulture. In addition, while this research did not reveal any instances of employing women as H-2A workers, more information on what is or is not being done to allow women opportunities in this program would be beneficial.

In conclusion, this paper has shown that the status of workers doing labor intensive tasks in the fruit and vegetable industries remains somewhat precarious. This research has also provided an overview of the policy framework for farm labor markets and illustrated some of the complex ways in which policy influences farm labor supply, employer preferences, and workforce organization. It also points to factors that constrain the choices of labor market actors, including employers, workers, and policy makers. Additional research directions are suggested to assist in further understanding and meeting the employment and other needs of this specific population of low-wage workers, along with a recommendation that solutions aim to improve the quality of farm work while also seeking to increase the choices that farmworkers have in organizing their work lives.

Appendix: Tables and Figures

Table 1: Qualitative Interviews

State & Federal Policy Actors (9) Washington, New York State-level	<ul style="list-style-type: none"> • 2 state interest group • 4 federal interest group • 2 researchers • 1 state legislature
Service Organizations (9)	<ul style="list-style-type: none"> • 2 legal services • 2 health • 2 housing • 3 education/training
Local Advocates & Researchers (5)	<ul style="list-style-type: none"> • 3 advocates • 2 researchers
Employers (13)	<ul style="list-style-type: none"> • 11 employers • 2 supervisors
Workers (58)	<ul style="list-style-type: none"> • 3 groups of H2A workers (16 people) • 27 migrant undocumented • 4 migrant documented • 11 settled (mixed citizenship status)

Table 2: Comparison of Fruit/Nut and Vegetable Workers with Full Sample

	All workers 2005-06	Pre-harvest, harvest, or post-harvest work in fruit/nut or vegetables 2005-06
Follow-the-crop (FTC)	7%	13%
Shuttle but not FTC (intl or in U.S. 75 miles away)	29%	37%
Unauthorized	53%	70%
Born in Mexico	74%	89%
Family income below poverty level	30%	40%

Table 3: Differences in Real Wages and Income by Group

2005-06 Real Wage (in 2006 dollars)		
<i>Unauthorized</i> 7.76	<i>Authorized</i> 9.01	t = -14.07 p = 0.00
<i>American-born</i> 9.32	<i>Mexican-born</i> 8.13	t = 10.91 p = 0.00
<i>Men</i> 8.52	<i>Women</i> 7.86	t = 5.8 p = 0.00
2005-06 Real Income (in 2006 dollars)		
<i>Unauthorized</i> 13,246.08	<i>Authorized</i> 18,289.33	t = -17.07 p = 0.00
<i>American-born</i> 19,060.28	<i>Mexican-born</i> 15,113.01	t = 11.13 p = 0.00
<i>Men</i> 17,173.59	<i>Women</i> 11,927.34	t = 14.02 p = 0.00

Table 4: Time Spent in Farm Work for Pre-harvest, Harvest, or Post-harvest Work in Fruit/Nut or Vegetables

	1997-98	2005-06
Farmwork weeks	23.38	29.64
Nonwork weeks	11.41	8.01
Weeks abroad	13.20	11.46
Non-farm work weeks	3.49	2.57
Hours last week at current farm job	36.96	44.41
Days per week current farm job	4.95	5.60

Table 5: Government Records of Foreign Labor Presence

	Source	FY06	FY07	FY08	FY09
Workers certified: U.S. total	U.S. DOL	72,510	89,575	94,401	99,454
<i>Percent increase</i>			23.5%	5.4%	5.4%
Workers certified for NY as employer state	U.S. DOL	3,153	4,013	4,181	4,427
<i>Percent increase</i>			27.3%	4.2%	5.9%
NY employer state as percent of U.S.		4.35%	4.48%	4.43%	4.45%
Workers certified	N.Y. State DOL	3,452	4,040	3,875	4,619
“Foreign” workers employed in peak period (September)	N.Y. State DOL	2100	2401	2994	
<i>Percent increase</i>			14.3%	24.7%	

Figure 1: Place of Birth

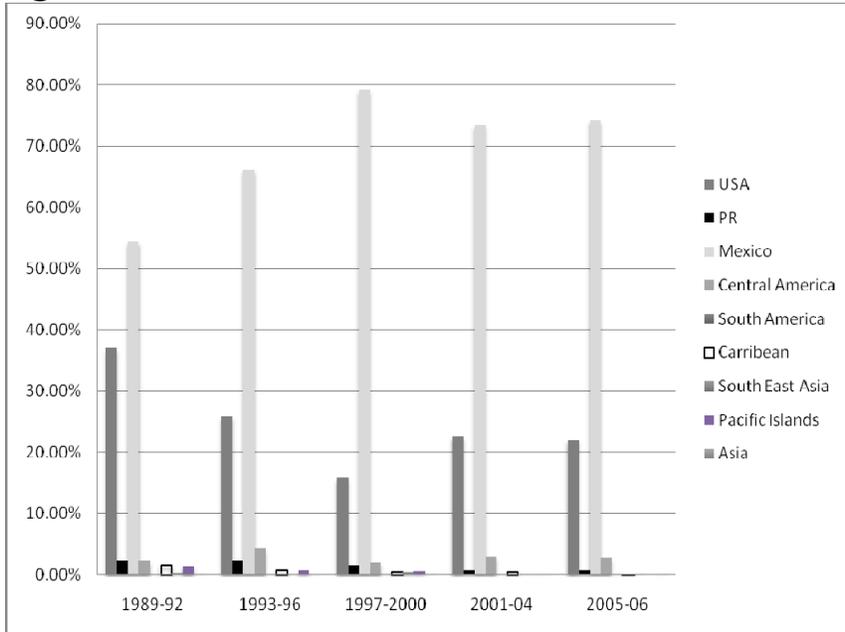


Figure 2: Legal Status of Workers

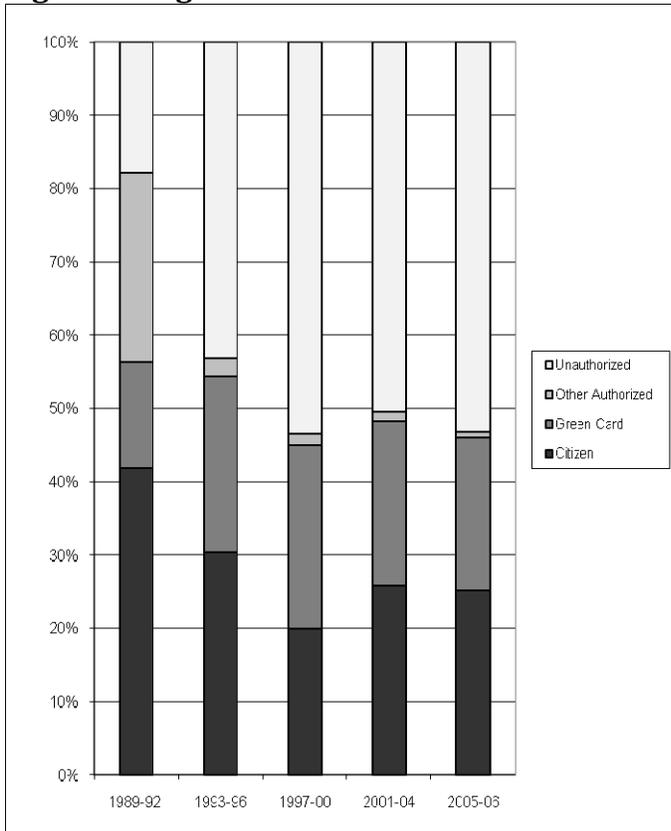


Figure 3a: Change in Presence of Migrants in the U.S.

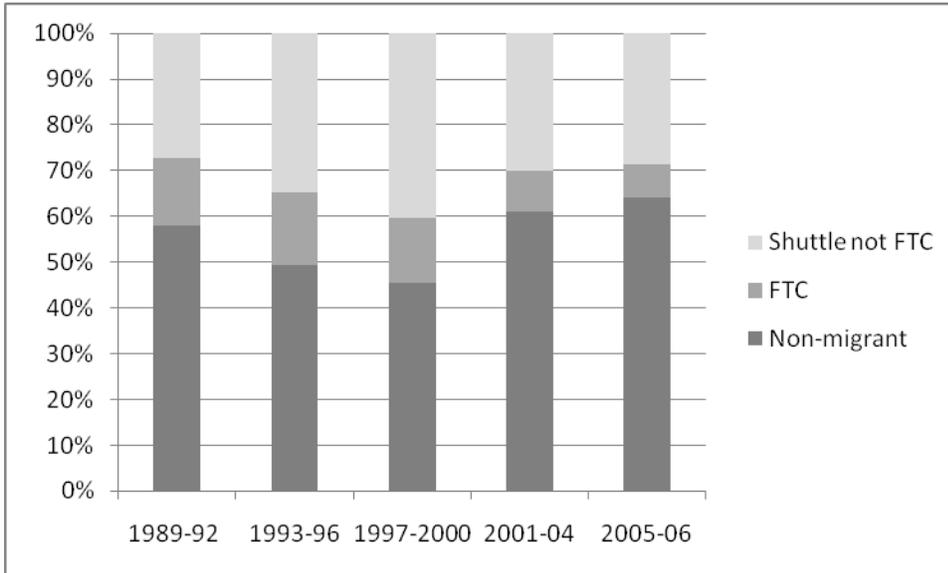


Figure 3b: Change in Presence of Migrants in the East

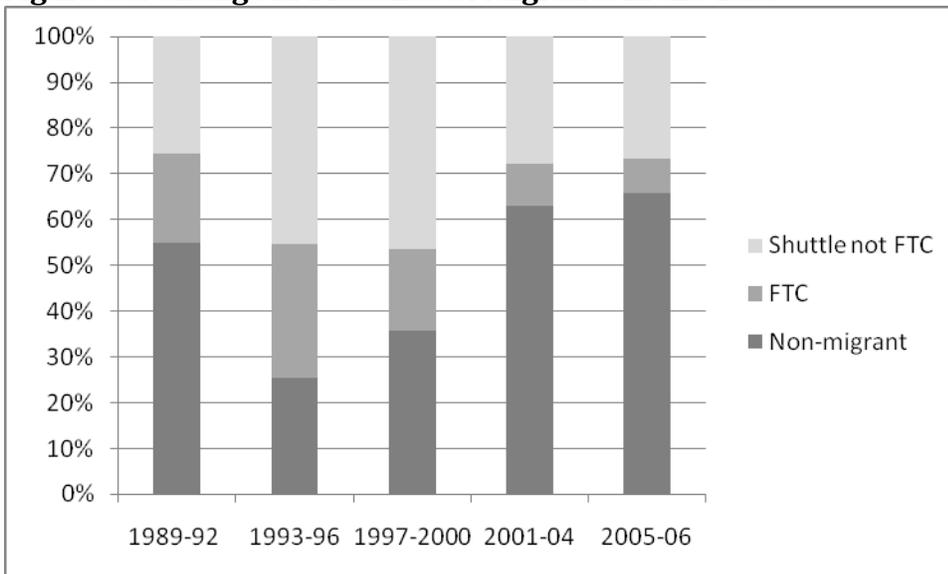


Figure 4: Average Hourly Wages of Crop Workers, Nominal and Real (2006) Dollars, 1989-2006

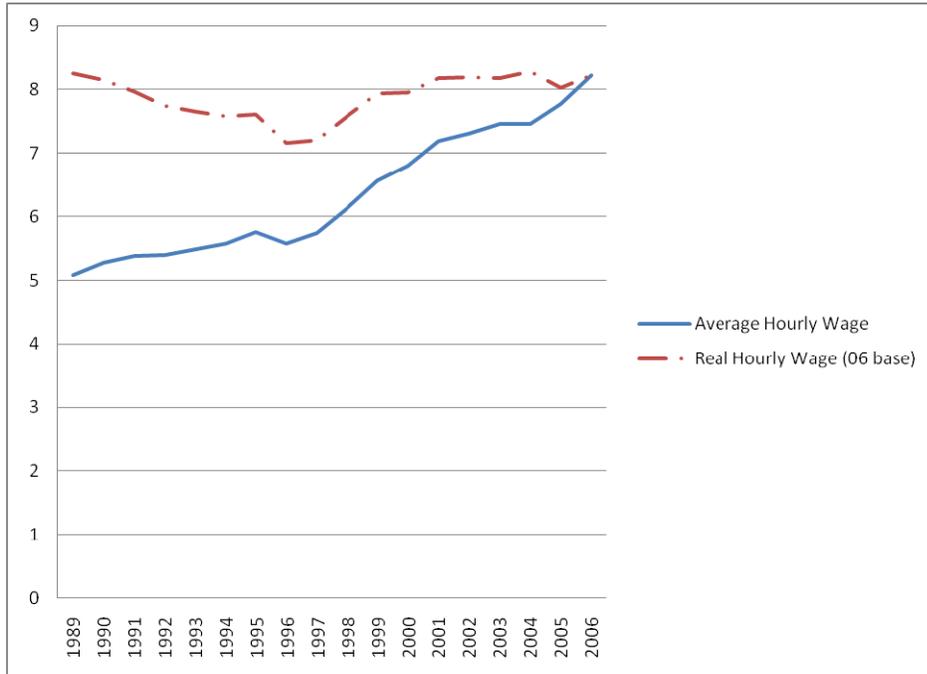


Figure 5: Real Income (2006 Level)

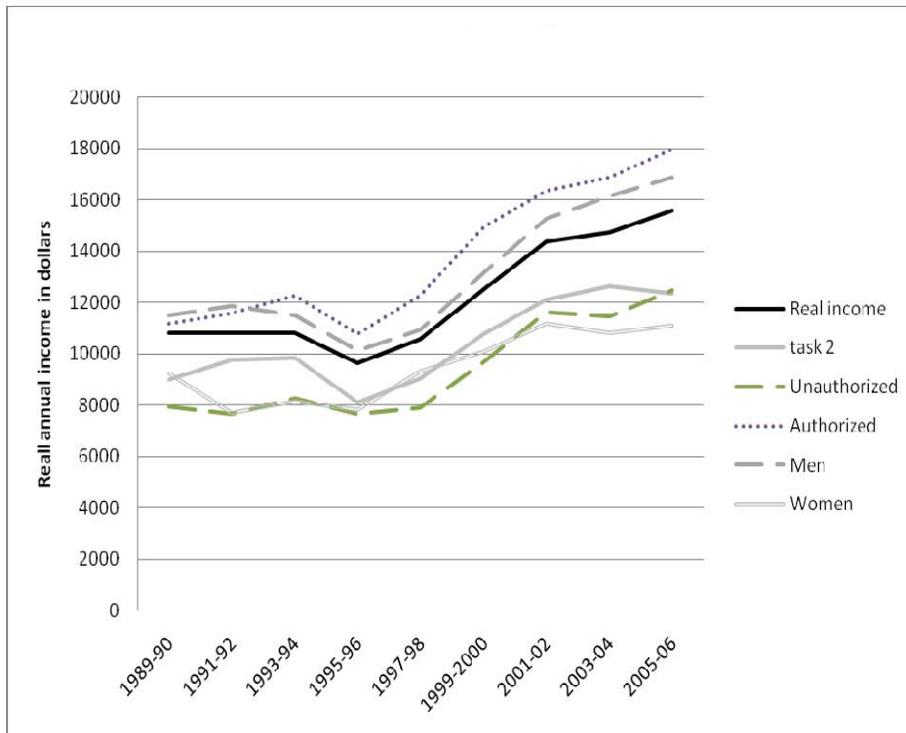


Figure 6: H-2A Visas Issued by Fiscal Year
 Source: U.S. Department of State

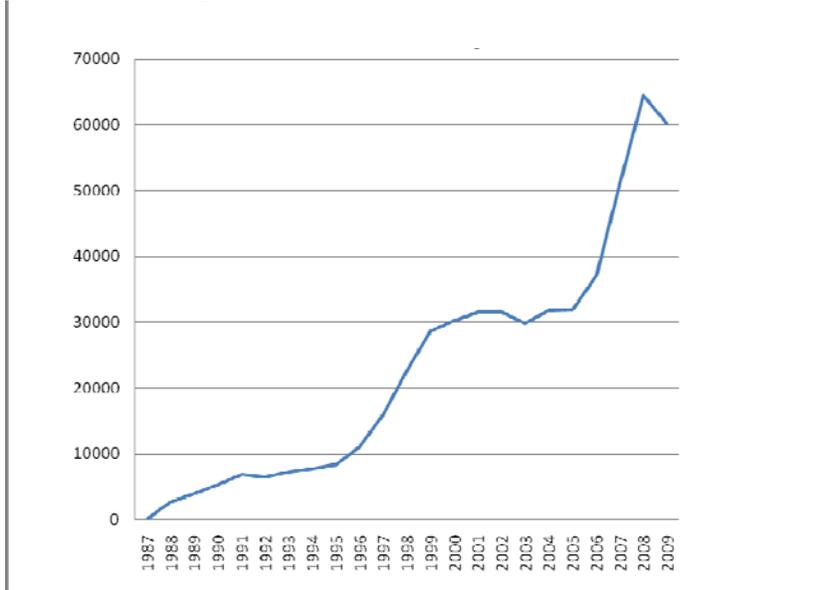
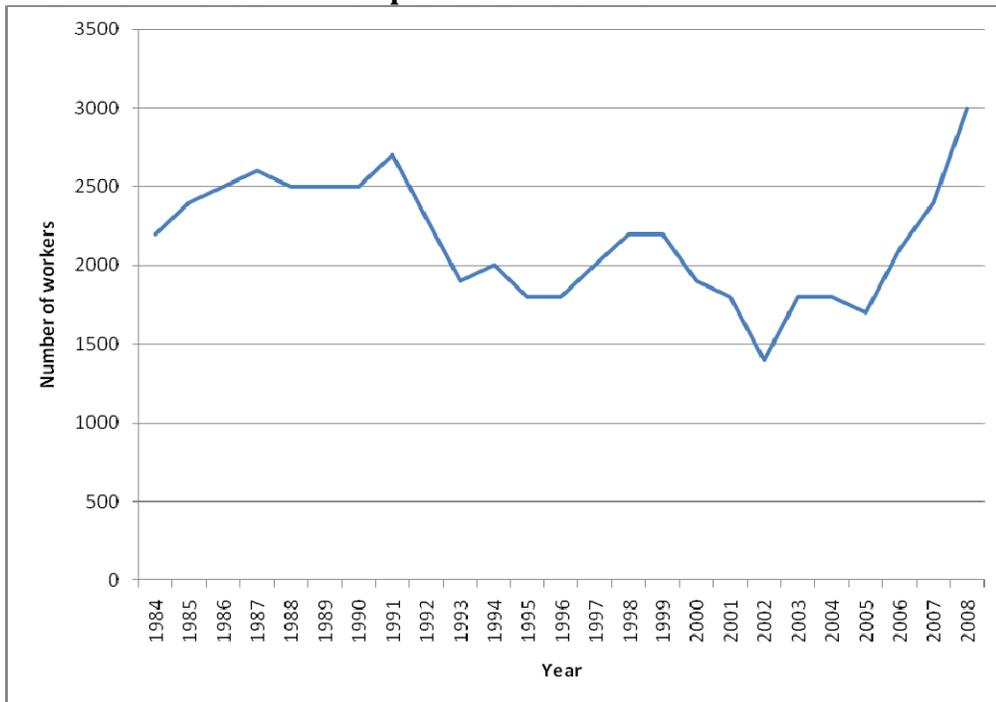


Figure 7: Foreign Workers Employed in Peak Period (September)
 Source: New York State Department of Labor



References

- Agricultural Guest Worker Programs: Joint Hearing before the Subcommittee on Risk Management And Specialty Crops of the Committee On Agriculture and the Subcommittee on Immigration and Claims of the Committee on the Judiciary, House of Representatives, 104th Congress, 1st Session, (1995). Washington: U.S. G.P.O.: Retrieved from <http://www.columbia.edu/cgi-bin/cul/resolve?clio7616568>
- The Agricultural Job Opportunities, Benefits, and Security Act of 1999: Hearing before the Subcommittee on Immigration of the Senate Committee on the Judiciary. 106th Congress. 2nd Session (2001).
- Bernhardt, A. D., Boushey, H., Dresser, L., & Tilly, C. (2008). An introduction to the "gloves-off economy." *The Gloves-Off Economy: Workplace Standards at the Bottom of America's Labor Market* (1st ed.). Champaign, IL: Labor and Employment Relations Association, University of Illinois at Urbana-Champaign.
- Boucher, S. R., & Taylor, J. E. (2007). Policy Shocks and the Supply of Mexican Labor to U.S. Farms. *Choices*, 22(1), 37-42.
- Bruno, A. (2009). *Immigration: Policy Considerations Related to Guest Worker Programs*. No. RL32044). Congressional Research Service.
- Bucholz, Sue. Housing for Farmworkers in New York: Analysis and Recommendations. Rural Opportunities Inc. 2000
- California Growers Push Guest Worker Program - Illegal Immigrants Would Increase, Critics Say. (1995, July 2). *St. Louis Post-Dispatch/San Francisco Chronicle*.
- Decker, S. H., Lewis, P. G., Provine, D. M., & Varsanyi, M. W. (April 2009). Immigration and Local Policing: Results From a National Survey of Law Enforcement Executives. In M. Malina (Ed.), *The Role of Local Police: Striking a Balance Between Immigration Enforcement and Civil Liberties*. Washington, D.C.: Police Foundation.
- Do Federal Programs Ensure U.S. Workers are Recruited First before Employers Hire from Abroad? Hearing before the Committee on Education and Labor of the House of Representatives. 110th Congress. 2nd Session. (2008).
- Domhoff, G. W. (1990). *The Power Elite and the State: How Policy is Made in America*. New York: Aldine de Gruyter.
- Emerson, R. D. (2007). Agricultural labor markets and immigration. *Choices*, 22(1), 57-66.
- Erickson, C. L., & Mitchell, J. B. (2007). Monopsony as a Metaphor for the Emerging Post-Union Labour Market. *International Labour Review*, 146(3/4), 163-187.

- Finding farmworkers. Editorial. (2010, February 17). *Los Angeles Times*.
- Gilbert, L. (2005). Fields of hope, fields of despair: Legisprudential and historic perspectives on the AgJobs bill of 2003. *Harvard Journal on Legislation*, 42(2), 417-482.
- Gray, M. (forthcoming). When Inequalities Cross Borders: A Case Study of Hudson Valley Farmworkers. In P. Gootenberg, & L. Reygadas Robles (Eds.)
- Griffith, D. C. (2007). Guestworkers, *Enganchadores*, and Changing Labor Relations in U.S. Rural Communities. *The Journal of Latino-Latin American Studies*, 2(4), 74-86.
- Griffith, D. C. (2006). *American Guestworkers: Jamaicans and Mexicans in the U.S. Labor Market*. University Park, Pa.: Pennsylvania State University Press.
- Guest Worker Programs: Hearing before the Subcommittee on Immigration and Claims of the House Committee on the Judiciary: 104th Congress, 1st Session (1996). Retrieved from: <http://www.columbia.edu.proxy.libraries.rutgers.edu/cgi-bin/cul/resolve?clio7616931>
- Hahamovitch, C. (2001). "In America Life is Given Away": Jamaican Farmworkers and the Making of Agricultural Immigration Policy. In C. M. Stock, & R. D. Johnston (Eds.). *The Countryside in the Age of the Modern State: Political Histories of Rural America* (pp. 335). Ithaca, N.Y. London: Cornell University Press.
- Hahamovitch, C. (1997). *The Fruits of their Labor: Atlantic Coast Farmworkers and the Making of Migrant Poverty, 1870-1945*. Chapel Hill: University of North Carolina Press.
- Hamilton, E. R. (2010). *Farmworker Housing in New York State: Obstacles and Options*.
- Heppel, Monica. Testimony at Guest Worker Programs: Hearing before the Subcommittee on Immigration and Claims of the House Committee on the Judiciary. 104th Congress, 1st Session (1996). Retrieved from: <http://www.columbia.edu.proxy.libraries.rutgers.edu/cgi-bin/cul/resolve?clio7616931>.
- Heppel, M. L., & Amendola, S. L. (1992). *Immigration Reform and Perishable Crop Agriculture: Compliance or Circumvention?*. Lanham, Md.; Washington, D.C.: University Press of America; Center for Immigration Studies.
- Horrigan, M. W. (February 2004). *Employment Projections to 2012: Concepts and Context*. Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections.
- Juliana Barbassa Associated, P. W. (2006). Shortage of Farmworkers Hitting Organic Growers Hard. *The Evening Sun (Norwich, NY)*, pp. 015.
- Levine, L. (2007). *Farm Labor Shortages and Immigration Policy*. No. RL30395. Congressional Research Service.

- Kandel, W. (2008). Hired Farmworkers a Major Input for Some U.S. Farm Sectors. *Amber Waves*, 6(2).
- Levine, L. (2009). *The Effects on U.S. Farm Workers of an Agricultural Guest Worker Program*. No. 95-712. Congressional Research Service.
- Local news. (2006, October 10). *The Daily News*. (Batavia, NY), pp. 3A.
- Maloney, T. R., Smith, M. A., & Dudley, M. J. Labor Outlook for New York Agriculture 2009. (pp. 8-1 - 8-10)
- Martin, P. L. (2009). *Importing Poverty? Immigration and the Changing Face of Rural America*. New Haven: Yale University Press.
- Martin, P. L., Fix, M., & Taylor, J. E. (2006). *The New Rural Poverty: Agriculture and Immigration in California*. Washington, D.C.: Urban Institute Press.
- Mehta, C., Theodore, N., & Hincapié, M. (November 2003). *Social Security Administration's No-Match Letter Program: Implications for Immigration Enforcement and Workers' Rights*. Chicago: Center for Urban Economic Development.
- Ngai, M. M. (2005). *Impossible Subjects: Illegal Aliens and the Making of Modern America*. Princeton, N.J.; Woodstock: Princeton University Press.
- Núñez-Neto, B. (2008). *Border Security: The Role of the U.S. Border Patrol*. No. RL32562. Congressional Research Service.
- Ontiveros, M. L. (2007). Female Immigrant Workers and the Law: Limits and Opportunities. In D. S. Cobble (Ed.), *The Sex of Class: Women Transforming American Labor* (pp. 35-57). Ithaca: ILR Press.
- Patrick, J. (2002, May 12). Some Farmers Fret about Labor Shortage. *The Daily Gazette* (Schenectady, NY), pp. A-01.
- Pena, A. A. (2009). *Poverty, Legal Status, and Pay Basis in U.S. Agriculture*. Stanford Center for International Development. Working Paper 377.
- Preston, J. (2007, August 3). In Increments, Senate Revisits Immigrant Bill. *The New York Times* (NY), pp. 1.
- Preston, J. (2006, September 22). "Pickers are few, and growers blame Congress." *The New York Times*. (NY), pp. 1.
- Protecting U.S. and Guest Workers: The Recruitment and Employment of Temporary Foreign Labor: Hearing before the Committee on Education and Labor of the House of Representatives. 110th Congress. 1st Session. (2007).

- Rot in the Fields: As Farmworkers Become Scarcer, Congress Dithers. (2007, December 3). *The Washington Post*. (Washington, D.C.), p. A16.
- Rothenberg, D. (1998). *With These Hands: The Hidden World of Migrant Farmworkers Today* (1st ed.). New York: Harcourt Brace.
- Rubery, J. (2005). Labor Markets and Flexibility. In S. Ackroyd (Ed.), *The Oxford Handbook of Work and Organization* (pp. 31-51). Oxford; New York: Oxford University Press.
- Rubery, J. (2006). *Segmentation Theory Thirty Years On*. Unpublished manuscript.
- Runyan, J., & Effland, A. B. W. (October 1998). Status Report: Hired Farm Labor in U.S. Agriculture. *Agricultural Outlook*, AGO-255, 19-22.
- Runyan, J. (2003). The Dynamics of Hired Farm Labor. *Amber Waves*, 1 (3), 11.
- Schell, G. (2002). Farmworker Exceptionalism under the Law: How the Legal System Contributes to Farmworker Poverty and Powerlessness. In J. Thompson Charles D., & M. F. Wiggins (Eds.), *The Human Cost of Food: Farmworkers' Lives, Labor, and Advocacy*. Austin: University of Texas Press.
- Sequeira, Leon. Testimony. Do Federal Programs Ensure U.S. Workers are Recruited First Before Employers Hire from Abroad? Hearing before the Committee on Education and Labor of the House of Representatives. 110th Congress. 2nd Session. (2008).
- Thompson, J., Charles D., & Wiggins, M. F. (Eds.). (2002). *The Human Cost of Food: Farmworkers' Lives, Labor, and Advocacy*. Austin: University of Texas Press.
- Tichenor, D. J. (2002). *Dividing Lines: The Politics of Immigration Control in America*.
- U.S. Department of Labor. (March 2005). *Findings from the National Agricultural Workers Survey (NAWS) 2001-2002: A Demographic and Employment Profile of United States Farm Workers*. Research Report No. 9.
- Immigration Reform and Control Act of 1985: Hearings before the Subcommittee on Immigration and Refugee Policy of the Committee on the Judiciary, United States Senate, 99th Congress, 1st Session, on S. 1200. June 17, 18 and 24 (1985). Washington: U.S. G.P.O.
- Varsanyi, M. (2008). Immigration Policing through the Backdoor: City Ordinances, the "Right to the City," and the Exclusion of Undocumented Day Laborers. *Urban Geography*, 29(1), 29-52.
- Wedemeyer, J. (2006). Of Policies, Procedures, and Packing Sheds: Agricultural Incidents of Employer Abuse of the H-2B Nonagricultural Guestworker Visa. *The Journal of Gender, Race, and Justice*, 10(1), 143-192.

- Wells, M. J. (2004). The Grassroots Reconfiguration of U.S. Immigration Policy. *International Migration Review*, 38(4), 1308-1347.
- Westat (2009). *Findings of the E-verify Program Evaluation*. Report Submitted to the U.S. Department of Homeland Security. Rockville, Maryland.
- Quirina M. Vallejos, Sara A. Quandt, and Thomas A. Arcury. The Condition of Farmworker Housing in the Eastern United States. In T. A. Arcury, & S. A. Quandt (Eds.) *Latino Farmworkers in the Eastern United States*. New York, NY: Springer.
- Wiggins, M. F. (2009). Farm Labor and the Struggle for Justice in the Eastern United States. In T. A. Arcury, & S. A. Quandt (Eds.) *Latino Farmworkers in the Eastern United States*. New York, NY: Springer.
- Zolberg, A. R. (2006). *A Nation by Design: Immigration Policy in the Fashioning of America*. Cambridge: Harvard University Press.