

ILLEGAL IMMIGRATION AND

# *Agribusiness:*

THE EFFECT ON THE AGRICULTURE INDUSTRY  
OF CONVERTING TO A LEGAL WORKFORCE

FAIR

FEDERATION FOR AMERICAN IMMIGRATION REFORM

*a report by Eric A. Ruark, Director of Research and  
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**A Report by Eric A. Ruark, Director of Research**

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# Executive Summary

Over the past several decades, the farming sector has grown increasingly dependent on a steady supply of workers who have entered the country illegally, despite the unlimited availability of visas for foreign agricultural guest workers. This has created a situation where presently half of all crop farm workers are unauthorized and have annual incomes that are \$5,600 less than that of authorized workers working in the same sector.

The agribusiness sector has consistently opposed an immigration policy that would result in a legal workforce. Their position is that current hiring practices are crucial for the survival of the industry, as Americans are not willing to do agricultural work and increasing wages to attract native-born workers would result in significantly higher food prices or a decline in American food production. Agribusiness lobbyist Sharon Hughes says, “We are either going to have our food produced by foreign workers here in the United States, or the farming process will move to foreign countries.”

Since 5.7 percent of U.S. farms account for 75 percent of total farm sales, it is clear that the food supply chain of the country is almost entirely dependent on large-scale agribusinesses. Hence, their economic interests are, to an extent, linked to national interests and cannot be trivialized when considering immigration issues. But is what they are saying true?

Between 1997 and 2007, the agriculture industry enjoyed a nearly 80 percent average annual increase in corporate profits, which is higher than all other major industries surveyed. Over the same period, the average real wage of a farm worker remained stagnant and was only half that of a non-farm worker of comparable skill level. In such a situation, it would be logical to question whether increasing farm wages to attract legal workers would really have a debilitating effect on the industry.

Prior studies have focused on the impact on food prices as a result of passing on the full increase of labor costs to consumers. In this study, we explore the impact on profits of commercial farms if all the increased labor costs are absorbed by the producers and the consequent effect on overall farm business. Both these scenarios must be assessed in order to obtain a conclusion about the industry’s ability to absorb higher labor costs.

This study reveals the following findings:

- Authorized workers are observed to be willing to accept wages that are 18 percent higher than unauthorized workers in the fruits, nuts, and vegetable sector and 22 percent higher in field crops and grains.
- American citizen and legal resident farm workers work significantly longer hours compared with those who are unauthorized.

- If unauthorized workers were replaced by authorized workers at the higher average wage rate authorized workers currently earn, farms in the fruits, nuts, and vegetable sector would experience a total labor cost increase of 10 percent, and the increase for the field crops and grains sector would be 6 percent.
- Major crops like corn, soybean, and other cash grains would experience, on average, a 1–2 percent decrease in net farm income as a result of a 6–10 percent average wage increase.
- The fruits, nuts, and vegetables sector would be impacted the most as the average net farm income would decrease by 12 percent, yet, the average commercial farm in this sector would still have earned an average net farm income higher than that of any other average commodity farm studied (without passing on any costs to customers).
- All commodity farms including those that are impacted heavily, namely “other field crops” and “fruits, nuts, and vegetables,” would still have performed profitably given higher labor costs, according to their profit margin ratio from 1996–2008.\*
- Small commercial farms, which are likely to have lower profit margins than the “typical commercial” farms studied in this report, do not generally produce fruits, nuts, and vegetables and are less likely to employ unauthorized workers and would be less affected by the labor cost increase associated with these crops.
- Rural residence farms would experience a lesser decline in net farm income (NFI) compared to commercial farms of the same category for all commodities studied due to their low labor requirements.

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\*“Other field crops” is a category used by Agriculture Resource Management Survey that combines data for all field crops other than the major categories of corn; soybeans; fruits, nuts and vegetables; and cash grains.

## Introduction

The crop farm sector is highly labor-intensive and contains the highest concentration of illegal workers compared to other occupations within the agriculture industry.<sup>1</sup> This sector is thus most relevant to the issue of assessing the costs of immigration reform as it is likely to be most affected by implementation and enforcement of immigration laws which require the retrenchment of illegal workers. Large agribusinesses that directly own farms or contract them out to independent operators or simply buy the produce for further processing contend that a low-wage, foreign-born workforce is vital to the survival of farming in the United States. They further assert that the current methods of bringing in foreign workers legally is cost-prohibitive, and so a workforce of illegal aliens is presently the only resort.

The argument of agribusiness lobbyists that increased labor costs would push food prices to unacceptably high levels is completely misleading because it is based on greatly exaggerated estimates of the extent of price increases.<sup>2</sup> What the agribusiness industry neglects to acknowledge is that they could choose to absorb the entire incremental cost (i.e. without raising food prices at all) of a legal workforce earning higher wages and still realize considerable profits. This study examines the projected cost structure and profitability of commercial farms under a scenario where they absorb the full cost of a 20 percent wage increase of the workers who are at the bottom rung of the wage ladder (a category which is, presently, almost entirely comprised of unauthorized workers).\*

- ***Unauthorized Labor in Agriculture*** examines the role of illegal migrant labor in agriculture and the claims of a possible nationwide shortage of native labor in this industry, given existing wage levels. pp. 4–6
- ***U.S. Farm Economy*** distinguishes between commercial farms and small family farms, highlights the lines that separate them and explains our reasons for focusing on commercial farms. pp. 6–9
- ***Assessing the Impact of Higher Labor Costs on Farms*** illustrates the effect of higher wages on commercial farms if food prices are not raised. The higher labor costs of a legal work force are imputed to calculate reduced farm incomes and operating profit margin. pp. 9–16
- ***Scope and Alternatives*** explores alternatives that are available to the industry for dealing with the shift to a legal workforce. pp. 16–18
- ***Conclusion*** highlights issues in the debate regarding unauthorized labor in agriculture in the light of the findings from the study. pp. 18-19

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\*This report uses the terms illegal, unauthorized, and undocumented interchangeably. The National Agricultural Workers Survey identifies as “Unauthorized” all farm workers who are unable to provide documents proving work authorization in the U.S. “Authorized” worker includes American citizens, green card holders and workers with other legal status not including H2-A visa guest worker authorization.



## Unauthorized Labor in Agriculture

### *Structure and Supply of the Labor Force*

Unauthorized migrant workers have consistently accounted for roughly half of all jobs in farming since 2000 and their wages have been lower than that of the legal workforce for all tasks surveyed and across all farm types.<sup>3</sup> Therefore, the replacement of illegal labor with higher paid legal workers will provide a worst-case scenario for the entire agriculture sector. A report by the Congressional Research Service found that there is no evidence of a strained labor market for agricultural workers nationwide.<sup>4</sup> During 1994–2008, the unemployment rate for farm workers was consistently higher than the unemployment rate for all other occupations.<sup>5</sup> Furthermore, over the same time period, the average hourly wages of field workers was half that of nonfarm workers of comparable skill levels.<sup>6</sup> The persistent trend of low wages and the high unemployment rate, relative to other sectors of the economy, suggests that the supply of farm workers has continued to exceed demand, with the possible exception of area or temporal spot shortages.

### *Availability of Native Workers*

A study by the Center for Immigration Studies (CIS) shows that high levels of unemployment of native workers exist in industries with the highest concentration of migrant workers (TABLE A).<sup>7</sup> In 2007, the farming, fishing

**Table A**  
Native and Immigrant Unemployment Rates — 2007 (THOUSANDS)

	Native Unemployment Rate	Occupation Comprised of Immigrants	Number of Natives Employed	Number of Natives Unemployed
Farming Fishing and Forestry	10.9%	36.3%	580	71
Building Cleaning and Maintenance	10.8%	29.6%	3,276	396
Construction	10.7%	22.5%	6,383	764
Food Service and Preparation	7.9%	17.8%	6,067	518
Transportation and Mowing	7.4%	21.6%	7,058	566
Production	6.1%	33.9%	7,394	484
Sales	4.6%	12.0%	14,661	699
Personal Care and Services	4.3%	18.6%	3,811	172

Source: Center for Immigration Studies, Steven A. Camarota, *Immigrants in the United States*, 2007

and forestry<sup>8</sup> occupations had both the highest proportion of migrant workers (36 percent of the workforce) and at the same time the highest unemployment rate (10 percent) for native workers which was more than double the national average at the time of 4.6 percent.<sup>9</sup> It was closely followed by Meat/Poultry/Fish processing operations where 33.9 percent of workers employed were immigrants while there was a 7.9 percent native unemployment rate. There is a strong correlation (0.87) between immigrant composition of labor force and native unemployment rate. While a causal relationship cannot be established by this simple correlation, we *can* assert that, on a nationwide level, a reduced supply of migrant workers is not likely to cause a labor shortage, as there are sufficient native workers to fill the void.

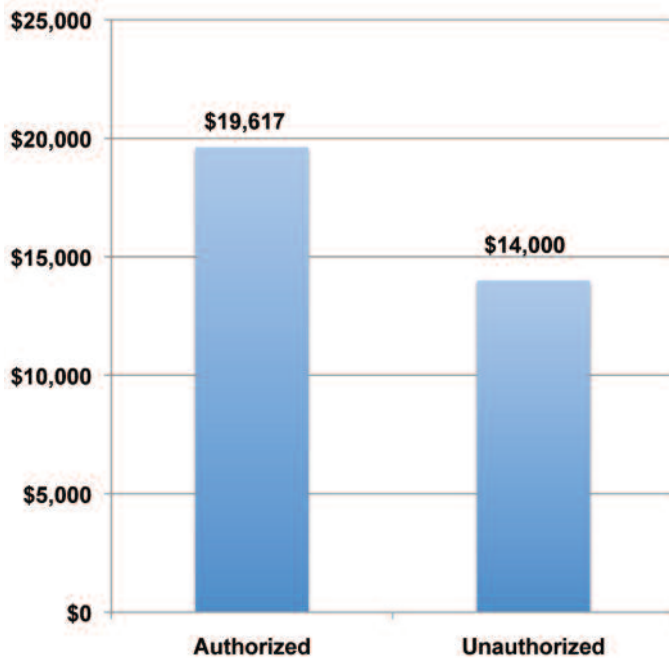
### ***Future Projections***

While the statistics cited in the previous sections are snapshots of the recent past, it is important to refer to current projections of the labor market as they tend to reflect overall trends by incorporating the most recent and relevant factors. In 2009, there was a dramatic reduction in employment and the USDA reported that “the consensus of the Blue Chip Economic Indicators (a monthly survey of private-sector forecasters) has U.S. unemployment rates remaining above 6 percent until 2015.”<sup>10</sup> Therefore, given that unemployment for farm workers has consistently been higher than that of other major occupations (TABLE A), it is safe to assume that the farm unemployment rate will remain above 6 percent in the foreseeable future. At the time this report was prepared (January 2011) the unemployment rate for those in agricultural occupations was 16 percent.

### *Labor Supply Responsiveness to Wages*

While there is no evidence of a nationwide labor shortage, businesses intending to replace their illegal immigrant work force may have to offer wages that are at least equal to what legal workers receive. This is likely to augment the pool of available native workers and prevent the labor crisis predicted by industry spokesmen. In a report to Congress, Levine concludes that an increase in the supply of foreign labor depresses agricultural wages.<sup>11</sup> She further cites a study by Wise which found that a 1 percent increase in wages for melon farming resulted in a 2.7

**Figure 1**  
Mean Income of Farmworkers by Legal Status—2006



Source: National Agricultural Workers Survey

percent increase in the domestic supply of labor, while the same increase in wages in strawberry production caused a 3.4 percent increase in the domestic labor supply.<sup>12</sup> The plentiful supply of illegal workers can, to a great extent, be blamed for the stagnation of farm wages over the past decades and ending this supply is likely to stimulate wages and consequently, as per standard economic theory, lead to an increased supply of domestic labor in agriculture. Raúl Hinojosa-Ojeda of the Center for American Progress estimated that unskilled workers would make about \$400 more per year if one-third of illegal immigrant labor were replaced by legal workers.<sup>13</sup> According to 2006 figures, the difference in the mean annual incomes of authorized and unauthorized farm workers was \$5,617 (FIGURE 1).<sup>14</sup>

## U.S. Farm Economy

### *Commercial and Rural Residence Farms*

The farming sector consists of farms that are extremely diverse in nature (in size, profitability and operational priorities) making it impossible to present a single representative picture. This study focuses on the impact of higher wage costs on large-scale commercial farms as they produce 84 percent of the total agricultural output and operate for profit.<sup>15</sup> Non-commercial farms cannot be appraised by the same yardstick since profit maximization is often not their primary objective and so business decisions, particularly whether or not to remain in the industry are, to a great extent, determined by factors independent of the farm economy.<sup>16</sup> They overwhelmingly consist of residential-lifestyle and retirement farms (70%) where operators report a non-farm occupation as their major source of income and consider farming as a lifestyle choice. The operating profit of these farms



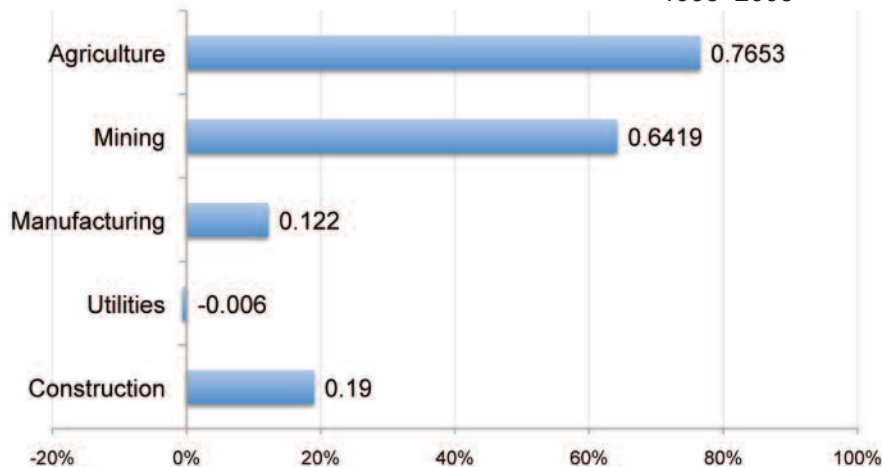


has been consistently negative and decreasing but nonetheless the number of very small farms has increased over time.<sup>17</sup> This supports the conclusion that decisions regarding these farm operations do not rely significantly on conditions prevailing in the farm sector. This study does calculate the extent of increased cost for non-commercial farms but does not assess the impact on them in terms of operational decisions.

### *Profits*

The agriculture industry has reported an 80 percent average annual increase in corporate profits before taxes between 1998 and 2008, thus making it the most profitable sector in the U.S. economy during this period (FIGURE 2).<sup>18</sup> We can therefore expect that the component farm sectors have also registered robust growth in profits and will thus be able to absorb the additional costs of replacing their unauthorized workforce.


**Figure 2**  
Average Annual Increase in Corporate Earnings  
1998–2008



### *Family Farms and Small Farms*

The term “family farm” reflects the cherished ideals of the traditional family life of America’s pioneer past. Due to its appeal, this concept is used as an astute marketing strategy by many agribusiness firms which have no resemblance whatsoever to traditional farms. Given that family farms have little or no commercial returns from farming operations, small family farms have neither the money nor the motivation to engage in commercial advertising and are not behind the heartwarming advertisements put forward in their name. According to the U.S. Department of Agriculture, “The definition of a family farm, since 2005, based on the Agricultural Resource Management Survey is one in which the majority of the business is owned by the operator and individuals related to the operator by blood, marriage, or adoption, including relatives that do not live in the operator household.” This definition is broad enough to include any large scale farming operation whose ownership structure is identical to that of a large private limited company where the majority of the shareholders are family members. Thus, there is nothing to prevent a large-scale agribusiness unit from being registered as a family farm and marketing products using the “face of a family farm.” As a result, public perception has tended to associate any hardship related to the farm industry with hardships for the families on small farms.<sup>19</sup>

While there are operators of family farms who are struggling to make ends meet, and to continue farming it would be incorrect to assume that farm households that engage in unprofitable farming operations are struggling to make ends meet. The median net worth of farm households regardless of farm size and incomes is higher than the U.S. median household net worth. This is because many operators of small farming operations rely heavily on off-farm income.<sup>20</sup>

A photograph showing two men standing in a field next to a large white truck with a red trailer. The man on the left is wearing a grey long-sleeved shirt, khaki pants, and a black cap. The man on the right is wearing a blue denim shirt, blue jeans, and a green cap. They are both smiling and looking towards the camera. The background shows a field with some trees and a clear sky.

“The folks where it’s a family business, in my limited experience, won’t knowingly hire ‘illegals’ ... I know my dad’s hiring practices are morality based, but a possible reason that smaller ranches and farms would avoid ‘illegals’ is because the fines are a much bigger deal.”

—farm girl from Okanogan County, Washington

### *Small Farms and Illegal Workers*

Farms (generating annual sales of \$100,000 or less) are not likely to be employing illegal aliens. According to the Agricultural Census, these farms hire, on average, two workers over the entire year. Many do not hire any labor at all because at the very small scale on which they operate it is realistically possible for family members to directly provide the labor needed for the day-to-day running of the farm. Another reason is that they focus on operations that do not require full-time hired labor, like raising cattle and poultry and growing hay.<sup>21</sup> Over the past two decades, small farms have consistently incurred losses and had to depend on non-farm incomes and government subsidies to sustain their operations. Profit is clearly not the motive for these farms and often not even a possibility in an industry that is dominated by large, powerful corporations. In fact, some believe that the commercial farm's practice of employing illegal immigrants "has robbed such [small] farms of their one competitive advantage."<sup>22</sup>

## Assessing the Impact of Higher Labor Costs on Farms

In this section, a study is designed using the data from the Agriculture Resource Management Survey (ARMS) and the National Agricultural Worker Survey (NAWS) to examine the impact of higher labor costs on profitability of commercial farms engaged in crop farming. The degree of impact of higher labor costs on net farm incomes (NFI) for both commercial and rural-residence farms is examined. We develop a Replacement Cost Model using the difference in wages and annual working hours of authorized and unauthorized workers. This model estimates the labor cost rise under a scenario where all illegal workers are replaced by legal workers employed at the higher wage earned by legal workers.

### *Methodology*

**FARMS BY PRODUCTION SPECIALTY AND FARM TYPOLOGY** — We examined farms producing (i) corn; (ii) soybeans; (iii) fruits, nuts, and vegetables; (iv) general cash grains; and (v) other field crops in the Farm Business and Household Survey, a component of ARMS. Within each category, we have examined both rural residence farms and commercial farms. The time period considered is from 1996-2008 and all conclusions are based on the farm business performance over this period.

**DATA COLLECTION** — The first part of the study consisted of extracting data (from NAWS) regarding the comparative numerical strengths, working hours and wage rates of both categories of farm workers — authorized and unauthorized. The results reveal that there are pronounced differences in all these areas (Appendix 1) and that these differences vary according to crop type. These values were then used to develop the Replacement Cost Model (**Appendix II**). The second part of the study utilized data of weighted averages of hired labor expense, interest, gross farm income, and net farm income to calculate first the higher labor costs for (a) the Replacement Cost Model; (b) 20 percent general wage/labor cost increase; (c) 30 percent general wage/labor cost increase; and then the respective percentage decline in NFI for all farms (**Appendix IV** out-

lines a sample calculation). Commercial farms have been subjected to an additional treatment whereby their operating profit margins are calculated to allow us to assess their business viability.

**SELECTING TIME PERIOD** — The agriculture sector is subject to yearly fluctuations in price and similarly farm performances vary drastically from year to year. Thus, the year at which the increase in cost is computed is crucial. In order to obtain a holistic picture, we have considered every year between 1996 and 2008 in order to subject the treatment to a range of business climates. The data for the best and worst years along with the average trend is displayed.

**SELECTING INDICATORS** — The percentage decline in net cash farm income from what is originally observed is calculated in order to isolate the effect due to the rise in labor cost. This is not likely to vary with the external business climate between each year, but can be expected to vary across farm type. The operating profit margin is calculated for commercial farms based on the new lower net cash income in order to make it possible to evaluate financial performance and profitability.<sup>23</sup>

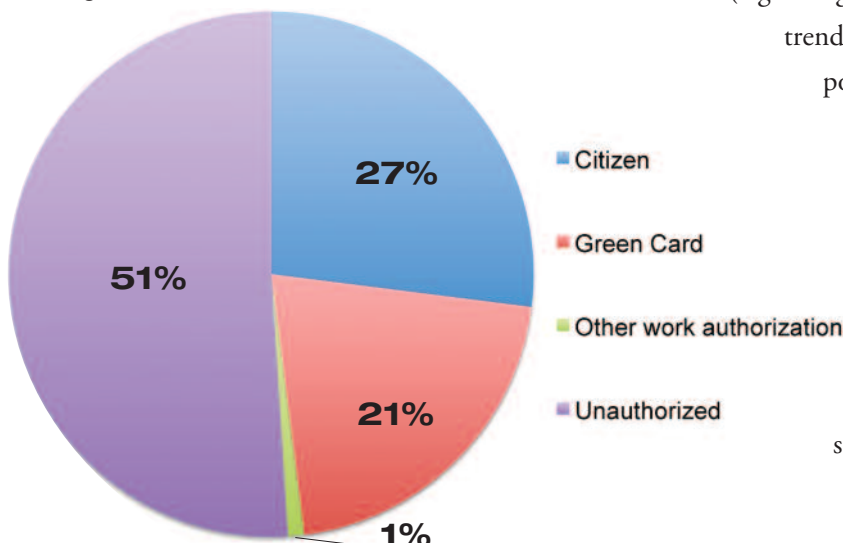
***National Agricultural Worker Survey Results***<sup>24</sup>

Data extracted for this report from the survey pertains to the (a) proportion of workforce that consists of authorized and unauthorized workers (b) mean hourly wage rates and (c) mean annual working hours for “fruits, nuts, and vegetables” and “field crop and grains” for 1989-2006. Summarized below are major findings and the relevant data for the second part of the study. **Appendix I** displays in detail the long term trend for each of these factors and the most recent (2006) values which are likely to be most representative of the present scenario given the consistent trend in these relationships.

***Major Findings***

(a)Unauthorized workers have consistently accounted for half of all hired farm workers. However, this proportion varies between types of commodity farms. For the period surveyed, on average 55 percent of all workers in fruits,

**Figure 3**  
Legal Status of Farmworkers—2006



Source: National Agricultural Workers Survey

nuts, and vegetables farming were illegal and the ratio (legal/illegal) has displayed a gradual decreasing trend over the years. Field crop worker composition displays a contrasting pattern where the average proportion of unauthorized workers has declined sharply from 60 percent in 1996 to around 20 percent in 2006.

(b)For all commodity farms and skill levels surveyed, authorized workers consistently earned significantly higher wages



## American Citizens Work Longer Hours on Farms

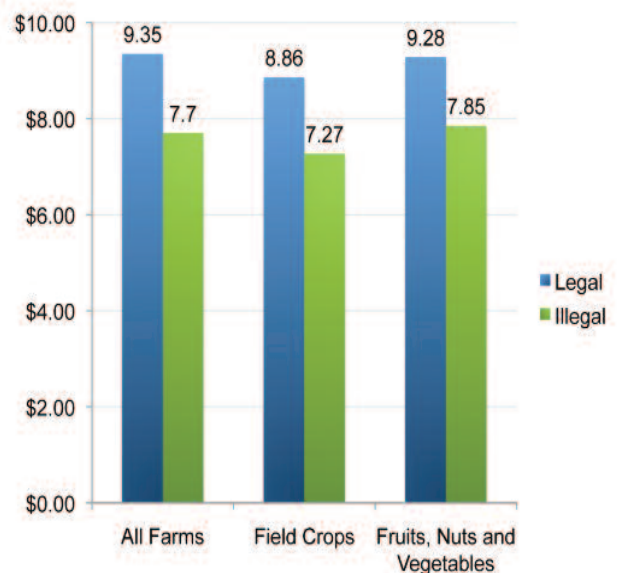
The median work hours for American workers engaged in crop farming was 1,963 hours in 2006 while it was 1,892 hours for undocumented workers. This trend is quite consistent over the entire 1996–2006 period during which median work hours for American workers increased by 825 hours. On fruit, nut, and vegetable farms, the difference in working hours of native and unauthorized workers is even more pronounced as illustrated in Figure 5.<sup>25</sup>

FAIR Analysis of National Agricultural Workers Survey data, 1996–2006

than unauthorized workers and, on average, this difference has increased. In 2006, the mean hourly wage rate of legal workers in field crop farming was 22 percent higher than that of illegal workers. The difference was slightly less (18 percent) in fruits, nuts, and vegetable farming (FIGURE 4).<sup>26</sup>

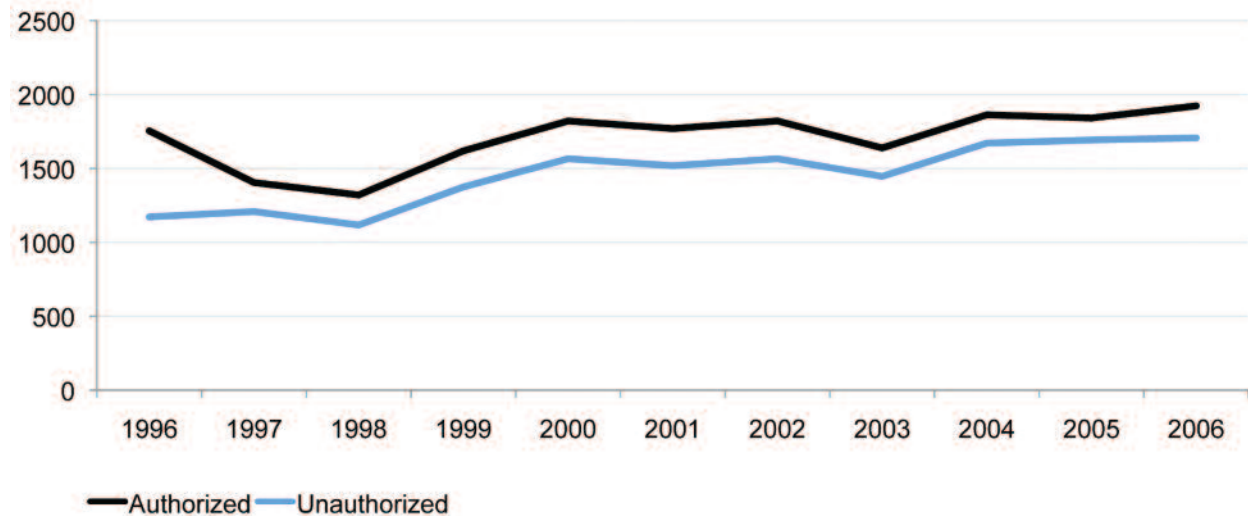
(c) Total hours of farm work reported by crop farm laborers have seen a gradual increase. The average authorized farm worker worked 700 hours more in 2006 than he did in 1990, and authorized workers have consistently worked more hours annually than their unauthorized counterparts, although this ratio has declined over the years (FIGURE 5).

**Figure 4**  
Mean Hourly Wage Rate by Legal Status—2006



Source: National Agricultural Workers Survey

**Figure 5**  
Annual Farm Work Hours of Authorized and Unauthorized Workers



Source: National Agricultural Workers Survey

### *Labor Cost Estimates*

**REPLACEMENT COST MODEL** — **Appendix II** outlines in detail how the ratios (authorized workers/unauthorized workers) of the number of workers, hours worked, and wages are used to estimate the increase in the labor cost. The model assumes a scenario where unauthorized workers in different farm classifications are replaced by legal workers. The newly employed workers are then paid the mean wage rate of the legal workers which is 22 percent higher than the wages that were hitherto being paid to the unauthorized workers. The new workers are assumed to be working the same number of hours as the illegal workers they had replaced. The rationale behind the underlying assumptions of this model is that since the existing legal labor force is content to work at the higher (legal) wage rate, this rate should be enough to attract legal workers from the existing unemployed pool. Since production is assumed to be unchanged, the labor hours requirements remain the same. The labor cost estimate derived using this method will be referred to as the Replacement Cost Estimate (RCE).

Due to the different categories used by the NAWS and ARMS, data has been consolidated and the summary is provided below. The most recent data (2006) is likely to be most representative of the present scenario given the consistent trend in these relationships rather than a long term average.

**GENERAL LABOR COST INCREASE** — While the main focus of the study was on the impact of the RCE, we have also estimated the reduced profit margins under a 20 percent and a 30 percent general increase in wages for all categories of workers, regardless of legal status. It is observed that the 20 percent increase results in doubling (for fruits, nuts, and vegetables category) and tripling (for field crops and grains category) the incremental labor cost under the RCM while the corresponding increases would be two-fold and five-

**Table B**  
Rise in Labor Cost Under Replacement Cost Model—2006

NAWS Category	ARMS Category	Ratio Illegal / Legal Workers	Ratio of Hours Worked	Ratio of Wage Rate	Increase in Labor Costs (RCE)	Increase in Income of Replaced Workers
Fruits, Nuts and Vegetables	fruits, nuts and vegetables	0.567	1.251	1.182	9.91%	18%
Field Crops	corn, general cash crops, soybean, other field crops	1.778	1.219	1.219	6.01%	22%

fold for the 30 percent increase. Hence, these general wage increases provide us with a “stress test” to ascertain how the farm sector will bear up when subjected to labor increases which are several times higher than the RCE.

***Expected Net Farm Incomes and Profit Margins***

**DECREASE IN NET FARM INCOMES (NFI)** — The decrease in NFI provides us with an indicator that isolates the impact on various farms due solely to the applicable increase in labor cost across different farms for each year studied. Imputing the relevant labor cost increase allows us to calculate the expected NFI for rural residence farms and commercial farms within the ARMS commodity categories. **Table C** summarizes these results from 1996-2006. It is observed that the fruits, nuts, and vegetables farms will be most heavily impacted. Over the period examined, there is an average decrease in NFI of 12 percent and under the business climate of 2008, this could be quantified at \$50,000 (**FIGURE 6**). This decline still leaves this category with the highest average income out of all the commodities studied. All field crop categories experience insignificant decline in net farm incomes. Within field crops, corn is impacted the least while the category of other field crops is impacted the most. Rural residence farms experience a smaller decline compared to commercial farms across all commodity farms and over all the years studied. This is due to the lower use of hired labor in these farms compared to commercial farms.

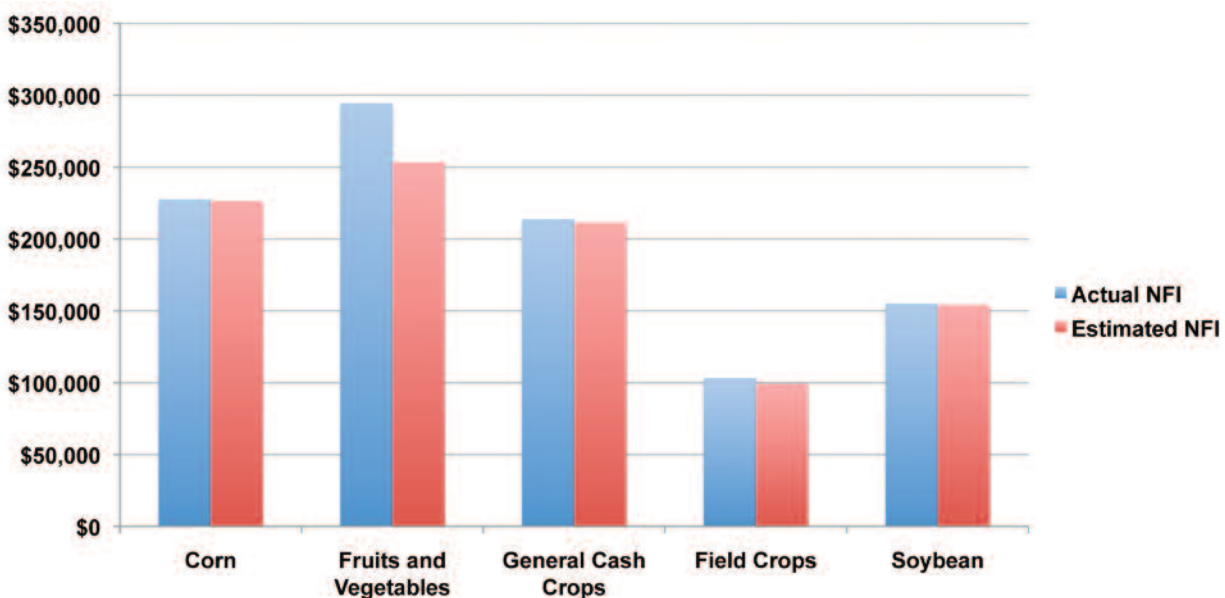
**OPERATING PROFIT MARGINS OF COMMERCIAL FARMS** — Profit margin ratios can be used as an indicator of business performance as it will vary due to this rise in labor cost and under the different market conditions over the period examined. Operating profit margin is a measure of the profit to operations, after deducting for unpaid operator labor and management fees and adding interest, as a proportion of gross farm income (GFI).<sup>27</sup> Values after the rise in costs are graphed (**FIGURE 6**) over the period examined for all commercial farms for the five commodities. In general, farm performance is considered strong when this ratio

is above 25 percent, stable when between 10-25 percent and weak when below 10 percent.<sup>28</sup> Fruits, nuts, and vegetable farms on average appear to experience stable and increasing profit margin ratios over the period examined despite the significant decline in NFI due to greater labor costs. Other farms closely resemble the actual trend in profit margin ratio due to the insignificant decline of NFI as recorded in **Table C** and are experiencing strong or stable overall profit margins. The operating profit margin appears to remain within stable levels for the typical commercial farm for as high as a 30 percent general labor cost increase as illustrated in **Figure 7**.

**Table C**  
Estimated Percentage Decrease in NFI after Imputing RCE—1996 to 2006

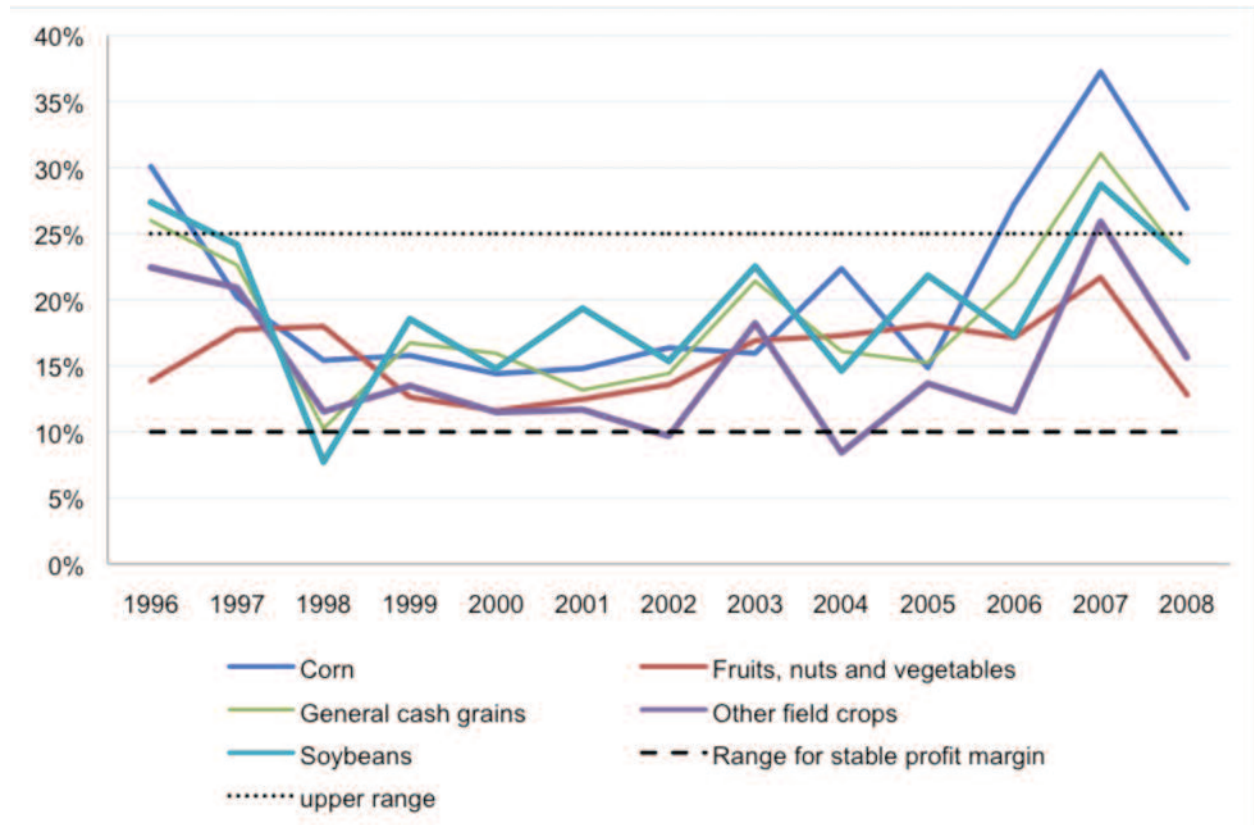
	Commercial		Rural Residence	
	Average	Worst Year	Average	Worst Year
Corn	1.23%	2.01%	0.43%	0.87%
Fruits, vegetables nursery	12.3%	15.5%	5.63%	7.72%
General cash grains	1.64%	2.19%	0.46%	0.55%
Other field crop	5.03%	7.17%	0.85%	0.96%
Soybean	1.00%	1.31%	NA <sup>29</sup>	NA

**Figure 6**  
Actual and Estimated NFI after Imputing RCE—2008





**Figure 7**  
 Estimated Operating Profit Margin of Commercial Farms (after increase in labor cost using RCE)



**Table D**  
 Average Profit Margins for Commercial Farms—1996 to 2008

	Corn	Fruits, nuts and vegetables	General cash grains	Other field crops	Soybeans
Actual/Observed (no cost increase)	21.2%	18.3%	19.4%	16.0%	20.0%
Replacement Cost Model (see Table B)	20.9%	15.7%	19.0%	15.0%	19.6%
20% Labor Cost Increase	20.4%	12.9%	18.4%	13.2%	19.0%
30% Labor Cost Increase	20.0%	10.2%	17.9%	11.8%	18.6%

**Analysis**

To assess farm financial situations, the Economic Research Service of the USDA examines both profitability and solvency of farms in a sector. Depending on their net income and debt-to-asset ratio, farms are categorized as favorable, marginal income, marginal solvency, and vulnerable.<sup>30</sup> The increase in expenses examined in this study

will affect net income and profitability. However, it is clear that none of the groups face an increase in cost sufficient to cause them to earn negative incomes. So the change is unlikely to relegate any of the groups to the “vulnerable” category. In 2008, 3.6 percent of farms were considered “vulnerable” and these overwhelmingly consisted of rural residence farms.<sup>31</sup> As **Table C** shows, rural residence farms are least impacted by this rise in labor cost. Harris observes that a 7 percent decrease in NFI from the previous year did not significantly alter the number of “vulnerable” farms, highlighting that asset holdings and extent of debt also play an important role in determining the financial position of a farm.<sup>32</sup> This makes it improbable that the decline in NFI noted for rural residence farms will push them down to the “vulnerable” category. The operating profit margin ratio decreases sharply for smaller commercial farms and, from the results obtained, it is possible that small commercial farms which engage in fruit, nuts, and vegetable farming could become vulnerable. However a USDA study of commercial farms found that there is a distinct difference in the product mix of small and large commercial farms. Small commercial farms tend not to produce fruits, nuts, and vegetables which are defined as high value crops due to the high degree of full time labor requirements.<sup>33</sup> To be exact, small commercial farms produce less than 1 percent of the total output of these crops, making it unlikely that changes specific to these crops will have any significant impact on them.

## Scope and Alternatives

### *Limitations*

Firstly, the labor cost increases calculated do not take into account non-monetary benefits to workers. However, since farm workers generally do not receive significant non-monetary benefits, this should not alter our model to a great extent. Secondly, possible transition costs like administrative fees of hiring new workers and costs of possible loss of productivity resulting from training interruptions have not been included. However, this change will not occur overnight and will, realistically, be implemented in phases. Also, the skill level necessary for this type of agricultural work does not require significant training. Thus, possible transition costs are not likely to be significant. If these costs are incurred, they can be incorporated under the alternate labor cost estimates outlined in **Table D** to obtain the estimated impact on profit margins. Compliance with existing laws cannot be estimated as an operating cost unless one assumes that choosing to break the law is a legitimate way to reduce labor costs.

### *Higher Prices*

According to general economic theory, a profit maximizing firm will react to a cost increase by passing it on, at least partially, to their customers. While this study has estimated the effect on profits if farms absorbed the full burden of the wage increase, it would be misleading to assert that this would actually be the case. The assumption here is that commercial farms could absorb substantial labor cost increases, not that they would. A study conducted by Philip Martin, Professor of Agriculture in University of California-Davis, examined the impact of a 40 percent increase in wages if all costs were passed on as higher prices.<sup>34</sup> Farm workers presently receive only 5 to 6 cents of every dollar spent on agricultural produce and after the 40 percent wage increase, this will increase

to 7 to 9 cents. As a result, households would experience an annual increase of \$9 (2005 dollars) in their expenditure on food. A realistic assessment of the impact of any increase in wages must assume that farms will pass on a part of this cost as higher prices and absorb the remainder as reduced profits. The relative share of the burden of higher cost that is borne by consumers and producers is determined by the price elasticity of demand of the commodity. It has been amply demonstrated that the impact of higher labor costs on net farm incomes is quite small and, when shared between consumer and producer, becomes almost negligible. However, for a farm worker this change could result in a substantial escalation of annual wages (from \$14,000 to \$19,600, 2006 dollars).

### ***H-2A Visas***

In a market economy, most producers will not willingly offer higher wages if cheap labor is available. As illustrated by our findings from the NAWS, the number of illegal workers has been increasing over the years. Stagnant wages in the agricultural sector over a long period of time have made it difficult to assess whether there is in fact a shortage of legal workers. The H-2A program provides for issuance of temporary visas to an unlimited number of foreign workers for legal employment in the agriculture sector on a temporary basis. Workers hired under this program must be paid wages equal to that of native workers, and have access to affordable housing, food, and transport. These requirements make the H-2A visa program a less attractive prospect for potential employers who have access to an extensive pool of illegal workers willing to work for low wages. This fact, perhaps, explains the low utilization of the H-2A program. In 2007, only 5 percent of farm workers had a H2-A visa whereas around 50 percent were undocumented. In order to design a viable guest worker program, it is important to identify and locate any actual labor shortage and the prevailing wage by making sure that only authorized workers participate in the labor market. The underground supply of labor distorts both these market signals making it impossible to judge the feasibility of the guest worker program under the existing circumstances.

Those farm operators who are using the highest number of unauthorized workers are also enjoying the highest profit margins, while opposing increased enforcement that would tighten the labor market and increase wages for agricultural workers. They argue that if laws against hiring unauthorized workers were enforced, an acute labor shortage would arise resulting in crops rotting in the field. Academics point to stagnant wages and the increasing reliance on labor intensive operations as evidence that there is, at present, no shortage of farm laborers in the United States.<sup>35</sup> This debate cannot be resolved unless the unabated flow of illegal labor is ended. The market economy ensures that jobs are designed for people instead of the other way around and so, if the argument is that the market should decide, then we should allow the market to deal with the necessary structural changes that will occur in the agriculture industry as a result of the implementation of laws that have long been on the books.

## Conclusion

The basic purpose of this study was to gauge the economic impact of replacing the unauthorized labor force with authorized workers in a sector which has grown increasingly dependent on cheap migrant labor. However, it is clear from the findings of this study that the impact will be insignificant. The impact would be greatest for fruits, nuts, and vegetables farms, but all commercial farms would remain profitable.

Any policy that can realistically be expected to deal with the situation would require policy makers to fully acknowledge both the existing dependency of the American agriculture industry on illegal labor and at the same time their sufficient capacity to pay higher wages for legal workers. Several studies make the unreasonable assumption that all unauthorized workers will disappear overnight and then use a computer model to calculate the subsequent impact on the economy the next morning and draw even the more absurd conclusion that all these “jobs will be lost” (meaning positions being vacated not people losing jobs).<sup>36</sup> An implementable policy would essentially be one that paves the way for a shift to a legal workforce giving the market sufficient time to adjust.

At the end of the day, higher costs are hardly a justification for continuing a practice that is illegal and exploitative. Federal authorities have long turned a blind eye to the rampant use of illegal workers on commercial farms. Certain groups among the general public also display passive acceptance of a problem that has been created and nurtured through a policy of non-enforcement, and some even go so far as to defend this practice while ignoring its deleterious effect on native workers. The “Take Our Jobs” campaign, for instance, is an attempt by the United Farm Workers Union to prove that illegal alien workers are essential for the farm sector. It calls upon American citizens to volunteer to take up agricultural jobs and highlights the lack of response so far as evidence that few, if any, Americans are willing to do farm work. However, if it is acknowledged that existing wages in this sector are insufficient to maintain basic living standards, and that working conditions make it one of the most dangerous occupations listed by the BLS, it would be unrealistic to expect persons with other alternatives to willingly subject themselves to such circumstances.

More importantly, the argument that Americans will not do farm work entirely ignores the point that low wages and long, difficult workdays are presently the norm due to the fact that for the past several decades there has been an inexhaustible supply of workers without any legal rights or bargaining power. It is not an “American value” to have an ingrained disdain for farm work. If this was the case, it would be difficult to explain why one in every five farm worker is American, or, more importantly, why 95 percent of farm operators are American. Furthermore, why has the average American farm worker over the past decade continued to work more hours than his illegal co-worker?

“AgJobs” bills that are periodically introduced into Congress propose that unauthorized farm workers be granted legal status. A mass amnesty for agricultural workers illegally in the United States was tried in 1986 and proved

to be a failure. The result was massive fraud and a quadrupling of the illegal alien population in the United States. True immigration reform calls for a sustainable solution that is morally and legally defensible and, at the same time, economically viable. Any ad hoc fix that perpetuates the existing conditions without eliminating the root cause of this flawed system will be detrimental, not only to the interest of this sector, but to those of the nation as well.

## Endnotes

- <sup>1</sup> Jeffrey S. Passel, "Size and Characteristics of the Unauthorized Migrant Population in the U.S.," The Pew Hispanic Center, March 7, 2006 (<http://pewhispanic.org/files/reports/61.pdf>); Steven A. Camarota and Karen Jensenius, "Jobs Americans Won't Do? A Detailed Look at Immigrant Employment by Occupation," Memorandum, Center for Immigration Studies, August 2009 (<http://www.cis.org/articles/2009/occupations.pdf>).
- <sup>2</sup> See the above comment by lobbyist Sharon Hughes quoted in S. Loewenberg, "Immigration laws dry up farming work force," *Politico*, October 24, 2007 (<http://www.politico.com/news/stories/1007/6531.html>).
- <sup>3</sup> National Agriculture Workers Survey (NAWS), U.S. Department of Labor, <http://www.doleta.gov/agworker/naws.cfm>, accessed October 25, 2010. See Appendix I. This number is much higher than the 24 percent reported by the Current Population Survey (Passel and Cohn 2009).
- <sup>4</sup> Linda Levine, "Farm Labor Shortages and Immigration Policy," Congressional Research Service, RL30395, November 9, 2009 (<http://www.nationalaglawcenter.org/assets/crs/RL30395.pdf>).
- <sup>5</sup> Levine, "Farm Labor Shortages and Immigration Policy," op. cit., Table 3.
- <sup>6</sup> *Ibid*, p. 11.
- <sup>7</sup> Steven A. Camarota, "Immigrants in the United States, 2007: A profile of America's Foreign-Born Population," Backgrounder, Table 2A, Center for Immigration Studies ([http://www.cis.org/immigrants\\_profile\\_2007](http://www.cis.org/immigrants_profile_2007)). The difference in figures of Current Population Survey and National Agricultural Workers Survey may be attributed to the difference in classification of occupations. NAWS does not encompass poultry farming, fishing and forestry. However, since these occupations have similar wage levels, a high degree of mobility between these occupations may be expected.
- <sup>8</sup> In crop farming especially, 78% of the workforce is non US-citizens (NAWS).
- <sup>9</sup> Steven A. Camarota and Karen Jensenius, "Trends in Immigrant and Native Employment," Backgrounder, May 2009, p. 16 (<http://www.cis.org/articles/2009/back509.pdf>). 4.6% unemployment was the average rate of U.S. unemployment reported by the Bureau of Labor Statistics in 2007.
- <sup>10</sup> "USDA Agricultural Projections to 2019," Interagency Agricultural Projections Committee, USDA, February 2010, p. 9 (<http://www.ers.usda.gov/Publications/OCE101/OCE101.pdf>).
- <sup>11</sup> Linda Levine, "The Effects on U.S. Farm Workers of an Agricultural Guest Worker Program," Congressional Research Service, 95-712, December 28, 2009 (<http://www.nationalaglawcenter.org/assets/crs/95-712.pdf>).
- <sup>12</sup> Donald E. Wise, "The Effect of the Bracero on Agricultural Production in California," *Economic Inquiry*, vol. 12, no. 4 (December 1974):pp. 547-558.
- <sup>13</sup> Raul Hinojosa-Ojeda, "Raising the Floor for American Workers: The Economic Benefits of Comprehensive Immigration Reform" (Washington, D.C.: Center for American Progress, American Immigration Council, January 2010), Appendix 2 (<http://www.americanprogress.org/issues/2010/01/pdf/immigrationeconreport.pdf>).
- <sup>14</sup> According to the NAWS results of 2006, mean annual incomes are significantly different for legal and illegal workforce in farming (unpaired one-tailed t-test, df=1175, p<0.001). The mean difference is \$6,830-\$4405 (99% confidence interval).
- <sup>15</sup> Robert A Hoppe, David E Banker, "Structure and Finance of Small Farms," *Economic Information Bulletin*, US Department of Agriculture, 2010 (<http://www.ers.usda.gov/Publications/EIB66/EIB66.pdf>).
- <sup>16</sup> Robert A. Hoppe, et. al., "Small Farms in the United States: Persistence Under Pressure 2010," *Economic Information Bulletin*, U.S. Department of Agriculture (USDA), no. 63 (February 2010), <http://www.ers.usda.gov/Publications/EIB63/EIB63.pdf>, accessed October 25, 2010.
- <sup>17</sup> Nigel Key and Michael J. Roberts, "Measures of Trends in Farm Size Tell Differing Stories."
- <sup>18</sup> "National Economic Accounts," Bureau of Economic Analysis, Figure 3A, [http://www.bea.gov/national/xls/technote\\_tax\\_acts.xls](http://www.bea.gov/national/xls/technote_tax_acts.xls), accessed June 21, 2010). Corporate profits as reported before tax and change in profits is calculated from inflation adjusted figures.

- <sup>19</sup> Janet Perry and Jim Johnson, "Farm and Rural Community," Factsheet, ERS, USDA, 1999.
- <sup>20</sup> Hoppe, "Small Farms in the United States."
- <sup>21</sup> Ibid.
- <sup>22</sup> Chad Dechow, "Family Dairy Farms and Immigration Reform," American Thinker, April 18, 2010, [http://www.americanthinker.com/2010/04/family\\_dairy\\_farms\\_and\\_immigra.html](http://www.americanthinker.com/2010/04/family_dairy_farms_and_immigra.html), accessed June 2010.
- <sup>23</sup> Operating profit margin: (NFI+Interest-Unpaid operator labor)/GFI.
- <sup>24</sup> NAWS. The data displayed in this section is obtained from analysis of the dataset of NAWS responses. NAWS is conducted by contractors of the Department of Labor and all information is obtained from face-to-face interviews. It is the most comprehensive random survey of the U.S. crop labor force. H-2A workers are not included in the NAWS survey. Those who are classified as "other authorized" are persons who have work authorization while their immigration status is pending, such as refugees and those with temporary protective status. Even though there is no limit on the number of H-2A workers who can enter the U.S. for work, they make up a small percentage (<5%) of farm workers.
- <sup>25</sup> The differences illustrated are statistically significant, meaning that observed differences are not due to sampling variability. P-value of t test for means is less than 0.0001.
- <sup>26</sup> Standard error bars do not overlap suggesting that differences in means are not likely to be due to sampling variability.
- <sup>27</sup> Not available due to high relative standard error in survey numbers or insufficient observations.
- <sup>28</sup> Unpaid operator labor is valued at prevailing farm wages multiplied by the average hours spent by operators engaged in farm work (Profile of Hired Farmworkers n.d.) and is distinct from returns to operator. The management fee is valued at 5% of GFI.
- <sup>29</sup> "Farm Financial Ratios and Benchmarks Calculations and Implications," University of Wisconsin, Cooperative Extension, March 2009, <http://www.uwex.edu/ces/ag/documents/FarmFinancialRatiosandBenchmarks3192009.pdf>, accessed July 20, 2010.
- <sup>30</sup> Marginal income: negative net income and debt to asset ratio lower than 40%. Marginal solvency: positive net income and debt to asset ratio. Vulnerable: debt-to-asset ratio greater than 40% and negative income.
- <sup>31</sup> J. M. Harris, et al., Agricultural Income and Finance Outlook, U.S. Department of Agriculture, Economic Research Service, AIS-88 December 2009.
- <sup>32</sup> Ibid.
- <sup>33</sup> Hoppe, Small Farms in the United States.
- <sup>34</sup> Philip Martin, "How We Eat: 2004," Rural Migration News," Vol. 12, no. 1 (January 2006), [http://migration.ucdavis.edu/rmn/more.php?id=1092\\_0\\_5\\_0](http://migration.ucdavis.edu/rmn/more.php?id=1092_0_5_0), accessed July 2010.
- <sup>35</sup> Philip Martin, "Farm Labor Shortages: How Real? What Response," Teleconference Transcript, Center for Immigration Studies, November 2007 (<http://www.cis.org/node/637>).
- <sup>36</sup> The most far-fetched scenario that is commonly cited is the so-called "Perryman Report," "An Essential Resource: An Analysis of the Economic Impact of Undocumented Workers on Business Activity in the US with Estimated Effects by State and by Industry" (Waco, Texas: The Perryman Group, April 2008), [http://americansforimmigrationreform.com/files/Impact\\_of\\_the\\_Undocumented\\_Workforce.pdf#page=48](http://americansforimmigrationreform.com/files/Impact_of_the_Undocumented_Workforce.pdf#page=48). The Perryman findings are based on an economic model that bears no relation to actual economic or political conditions in the U.S. Raul Hinojosa-Ojeda, "Raising the Floor for American Workers," takes another approach. He simply ignores all evidence that contradicts his conclusions.

## Appendices



# Appendix I

## National Agricultural Workers Survey: Summary of Data

### Numbers Surveyed by Status

	ALL FARMS			FIELD CROPS			FRUITS, NUTS AND VEGETABLES		
	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL
2006			1.03			3.77			0.67
2005	1117	1104	1.01	255	79	3.23	453	695	0.65
2004	1592	1448	1.10	409	164	2.49	637	868	0.73
2003	1783	1774	1.01	496	204	2.43	773	1191	0.65
2002	1629	1709	0.95	343	203	1.69	808	1081	0.75
2001	1489	1583	0.94	321	168	1.91	811	1013	0.80
2000	1629	1709	0.95	343	203	1.69	808	1081	0.75
1999	1718	1823	1.06	372	231	1.61	945	1194	0.79
1998	1085	989	1.10	60	182	0.33	750	630	1.19
1997	1105	978	1.13	104	171	0.61	735	609	1.21
1996	1060	976	1.09	101	155	0.65	681	658	1.03

### Wages by Status

	ALL FARMS			FIELD CROPS			FRUITS, NUTS AND VEGETABLES		
	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL
2006	\$9.35	\$7.70	1.21	\$8.86	\$7.27	1.22	\$9.28	\$7.85	1.18
2005	\$8.51	\$7.56	1.13	\$8.18	\$7.23	1.13	\$8.24	\$7.65	1.08
2004	\$8.41	\$7.13	1.18	\$8.65	\$6.55	1.32	\$8.31	\$7.23	1.15
2003	\$8.24	\$7.09	1.16	\$8.27	\$6.76	1.22	\$8.04	\$7.17	1.12
2002	\$8.09	\$6.86	1.18	\$8.44	\$6.75	1.25	\$7.68	\$6.92	1.11
2001	\$7.81	\$6.91	1.13	\$7.82	\$7.00	1.12	\$7.65	\$6.96	1.10
2000	\$8.09	\$6.86	1.18	\$8.44	\$6.75	1.25	\$7.68	\$6.92	1.11
1999	\$6.83	\$6.21	1.10	\$6.44	\$6.15	1.05	\$6.89	\$6.26	1.10
1998	\$6.59	\$5.88	1.12	\$6.00	\$5.40	1.11	\$6.50	\$6.03	1.08
1997	\$6.12	\$5.52	1.11	\$5.67	\$5.08	1.12	\$6.06	\$5.67	1.07
1996	\$5.92	\$5.45	1.09	\$5.73	\$5.22	1.10	\$5.76	\$5.57	1.03

### Annual Farm Work Hours by Status

	ALL FARMS			FIELD CROPS			FRUITS, NUTS AND VEGETABLES		
	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL	LEGAL	ILLEGAL	RATIO OF LEGAL/ILLEGAL
2006	1923	1707	1.13	2118	2269	0.93	1927	1540	1.25
2005	1841	1693	1.09	2029	1883	1.08	1710	1613	1.06
2004	1863	1671	1.11	43	36	1.19	41	38	1.07
2003	1639	1447	1.13	2060	1691	1.22	1588	1406	
2002	1821	1566	1.16	2434	1650	1.48	1691	1482	1.14
2001	1770	1519	1.17	2149	1560	1.38	1632	1441	1.13
2000	1821	1566	1.16	2434	1650	1.48	1691	1482	1.14
1999	1619	1375	0.85	1860	1387	1.34	1482	1291	1.15
1998	1321	1117	1.18	1440	983	1.47	1280	1106	1.16
1997	1404	1208	1.16	1556	912	1.71	1352	1231	1.10

Values displayed are mean values of survey responses. Ratios are calculated from values of preceding columns.

## Appendix II

### *Replacement Cost Model: Estimating Rise in Labor Expense*

The survey data reveals that depending on commodity type, contribution of labor and their wages can differ by legal status. Over the period examined there have been certain changes in these factors that follow a trend and so it is likely that the most recent data (2006) is more representative of the present situation compared to an 11 year average. The ratio of numbers, annual working hours and wages of legal and illegal workforce for 2006 is calculated to give an estimate of the rate of increase in compensation that may have to be offered if the entire illegal labor force is to be replaced by legal workers.

$$\begin{aligned} \text{Total original labor cost (L)} &= \text{payment to legal workers} + \text{payment to illegal workers} \\ &= (NL * HL * WL) + (Ni * Hi * Wi) \end{aligned}$$

Where NL/i=Number of legal/illegal workers

HL/i=Annual farm work hours by legal/illegal workers

WL/i=Mean wage rate legal/illegal workers

Let  $x = NL/Ni$ : ratio of number of legal workers to number of illegal workers

$w = WL/Wi$ : ratio of wages (legal/illegal)

$z = HL/Hi$ : ratio of annual hours per worker

$$\begin{aligned} L &= WL * HL * NL + WiHiNi \\ &= xwz(WiHiNi) + WiHiNi \\ &= (xwz+1) WiHiNi \text{—total labor cost at different wage rates} \end{aligned}$$

Now, if the labor hours that were previously paid at the lower wage rate are now paid at the higher wage rate accepted by legal workers then,  $Wi=WL$

New labor cost ( $L'$ ) =  $WL * HL * NL + WLHiNi$

$$= xwz (WiHiNi) + wWiHiNi$$

$$= (xwz+w) WiHiNi$$

Therefore  $L'/L = (xwz+w) / (xwz+1)$

Commodity	Ratio of number (x)	Ratio of wage rate (w)	Ratio of hours worked (z)	$(xwz+w) / (xwz+1)$	Percentage increase in labor cost	Increase in income of replaced workers
Fruits, nuts and vegetables	0.567	1.182	1.251	1.991	0.0991	0.18
Field crops	1.778	1.219	1.219	1.0601	0.0601	0.22

## Appendix III

### *Net Farm Incomes and Operating Profit Margins after Replacement Cost Estimate*

#### Operating Profit Margin

	CORN	FRUIT, NUTS, VEGETABLES	GENERAL CASH GRAINS	OTHER FIELD CROPS	SOYBEANS
1996	0.3008	0.1387	0.2599	0.2244	0.2738
1997	0.2017	0.1773	0.2262	0.2090	0.2415
1998	0.1542	0.1798	0.1024	0.1154	0.0772
1999	0.1579	0.1263	0.1674	0.1349	0.1854
2000	0.1440	0.1161	0.1594	0.1149	0.1478
2001	0.1479	0.1248	0.1317	0.1168	0.1935
2002	0.1637	0.1357	0.1442	0.0969	0.1536
2003	0.1595	0.1691	0.2140	0.1822	0.2253
2004	0.2236	0.1728	0.1610	0.0844	0.1462
2005	0.1485	0.1810	0.1525	0.1366	0.2184
2006	0.2723	0.1712	0.2136	0.1154	0.1726
2007	0.3725	0.2169	0.3106	0.2591	0.2872
2008	0.2691	0.1283	0.2275	0.1564	0.2290

#### Decline in Net Farm Income

	CORN	FRUIT, NUTS, VEGETABLES	GENERAL CASH GRAINS	OTHER FIELD CROPS	SOYBEANS
1996	0.0090	0.1365	0.0134	0.0289	0.0121
1997	0.0124	0.1164	0.0142	0.0548	0.0121
1998	0.0159	0.1046	0.0253	0.0716	0.0223
1999	0.0191	0.1528	0.0194	0.0674	0.0179
2000	0.0149	0.1554	0.0158	0.0717	0.0121
2001	0.0201	0.1504	0.0219	0.0456	0.0113
2002	0.0145	0.1375	0.0216	0.0682	0.0168
2003	0.0134	0.1097	0.0125	0.0409	0.0167
2004	0.0088	0.1031	0.0159	0.0529	0.0206
2005	0.0129	0.1036	0.0180	0.0414	0.0123
2006	0.0077	0.1045	0.0142	0.0425	0.0129
2007	0.0053	0.0881	0.0095	0.0254	0.0115
2008	0.0060	0.1396	0.0109	0.0399	0.0077

#### Decline in Net Farm Income of Rural Residence Farms

	CORN	FRUIT, NUTS, VEGETABLES	GENERAL CASH GRAINS	OTHER FIELD CROPS	SOYBEANS
2008	0.0028	0.0700	0.0055	0.0077	*
2007	0.0019	*	0.0055	0.0096	*
2006	0.0037	0.0456	0.0041	0.0082	*
2005	0.0036	0.0489	0.0054	0.0076	*
2004	0.0042	*	0.0024	*	*
2003	0.0030	*	*	0.0055	*
2002	0.0087	0.0772	*	0.0101	*
2001	0.0047	0.0465	*	0.0064	*
2000	*	*	*	*	*
1999	*	0.0576	*	0.0239	*
1998	*	*	*	0.0043	*
1997	0.0072	0.0483	*	0.0058	*
1996	0.0031	*	*	0.0045	*

Values required for calculations unavailable due to high relative standard errors of values obtained in the survey

Calculation made using data from Agricultural Resource Management Survey 1996-2008. Refer to Appendix IV for sample calculation.

## Appendix IV

### *Sample Calculation Using Data from 2006 for Commercial Fruits, Nuts and Vegetable Farms*

INCOME ITEM	SOURCE / DERIVED FROM	
Gross cash income		1300030
Labor		329969
Interest	Agriculture Resource Management Survey	32657
Depreciation	Customized Data Summary	55731
Net farm income		310715
Unpaid operator labor	2500 hours* average wage rate	23375
Actual Operating profit margin	$(\text{NFI} + \text{Interest} - \text{Unpaid Operator labor} - 5\% \text{GFI}) / \text{GFI}$	19.6%
<b>REPLACEMENT COST ESTIMATE</b>		
ratio of hour (x)		1.251
ratio of number (y)	National Agriculture Workers Survey	0.567
ratio of wage (z)		1.181
Labor cost (RCE)	$\text{Actual labor cost} * (\text{xyz} + \text{z}) / (\text{xyz} + 1)$ See Appendix II	307798
New net farm income	$\text{Actual NFI} - \text{Labor cost (RCE)}$ Actual labor cost	223846
Percentage decrease in NFI		11.0%
Operating profit margin		16.9%
<b>20% LABOR COST INCREASE</b>		
Labor cost (2)	Actual labor cost* 1.2	362445
New net farm income (2)		278239
Percentage decrease in NFI (2)		10.5%
Operating profit margin (2)		17.1%
<b>30% LABOR COST INCREASE</b>		
Labor cost (3)	Actual labor cost* 1.3	428960
New net farm income (3)		211724
Percentage decrease in NFI (3)		31.9%
Operating profit margin (3)		12.0%

These calculations has been duplicated for ARMS data for all types of crop farms and for every year between 1996-2006.  
Summary of data provided in Appendix III

## ABOUT FAIR

The Federation for American Immigration Reform (FAIR) is a national, nonprofit, public-interest, membership organization of concerned citizens who share a common belief that our nation's immigration policies must be reformed to serve the national interest.

FAIR seeks to improve border security, to stop illegal immigration, and to promote immigration levels consistent with the national interest — more traditional rates of about 300,000 a year.

With more than 250,000 members and supporters nationwide, FAIR is a non-partisan group whose membership runs the gamut from liberal to conservative. Our grassroots networks help concerned citizens use their voices to speak up for effective, sensible immigration policies that work for America's best interests.

FAIR's publications and research are used by academics and government officials in preparing new legislation. National and international media regularly turn to us to understand the latest immigration developments and to shed light on this complex subject. FAIR has been called to testify on immigration bills before Congress more than any organization in America.

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Your support is crucial to our ability to improve border security, stop illegal immigration, and promote immigration levels consistent with the national interest. You may join or donate online at [www.fairus.org](http://www.fairus.org), toll-free by phone at (877) 627-3247, or complete the adjacent form and mail to:

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