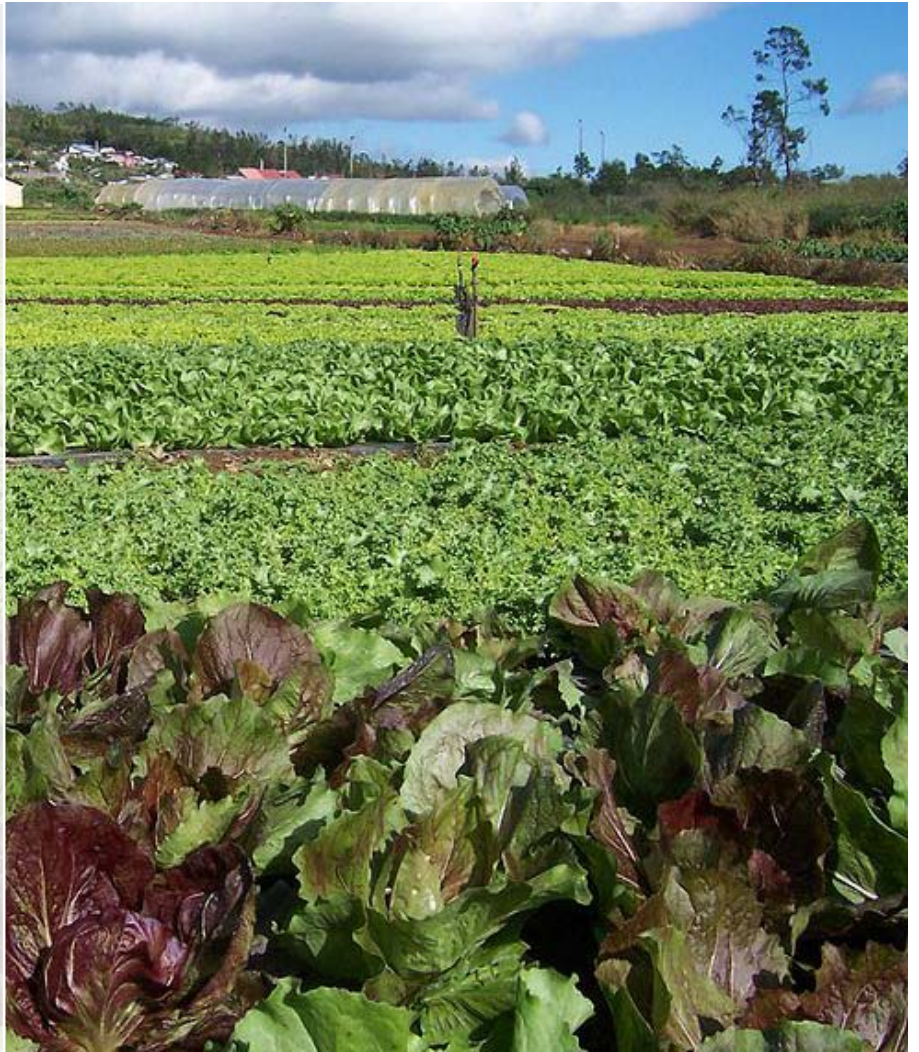


Executive Summary

Economic Impact of the H-2A Worker
Program on Local U.S. Communities

2011



This document contains the executive summary of the study titled: “Economic Impact of the H-2A Worker Program on Local U.S. Communities.” The present study is funded by The Howard G. Buffett Foundation.

October 2011
Arizona State University
<http://ilpil.asu.edu/>



1 Executive Summary

In theory, the H-2A program could provide the solution to seasonal scarce farm labor availability that US farmers have been facing. However, this program has been criticized for being insufficient and bureaucratic. This study examines the marginal impact of expanding the H-2A worker visa program from the status quo to a policy that allows farmers to efficiently obtain as many workers as needed to optimize the profitability of their operations.

We analyze these impacts from the perspective of: (1) farmers, (2) domestic workers, and (3) the local economy. We define the farmers' perspective as changes in their productivity and profits; domestic workers' perspective as expected change in local employment level; and the local economy perspective as changes in the sum of farmer profits, public revenues and spending, and wages received and spent locally, including their multiplier effect through the local economy. The methodology will be piloted in Yuma County and then replicated in other agricultural regions of the U.S.

The first objective is to develop a region-based, agricultural labor planning tool whose primary purpose is to assess the productivity of a farmer's operations under the following two main scenarios: a status quo in which the labor supply is "as is", and one in which there is an unlimited access to labor through the H-2A program. This model will be used to estimate the increased H-2A labor supply needed to optimize farming productivity in the region. The second and third objectives are to estimate the impact of this labor supply shock on farmers' profits, local employment and the local economy. The final deliverable is a robust analytical framework that enables policy makers to assess the current labor market situation of U.S. agricultural regions.

1.1 Literature Review

The issue of immigrant farm labor use in the U.S. has received large amount of attention in current literature, and in most studies, it has been analyzed strictly from an economic perspective. The majority of the studies focus on estimating the effect of the immigrant worker on the U.S. economy, in terms of wages, employment, and externalities. In general, the conclusion of these studies

stresses the importance of having an immigrant workforce, not only as a source for labor but also for its economic contribution to the macro and micro-economies they help support.

With respect to the effects to the domestic wage, it has been estimated that immigration lowers the wage of competing workers by approximately 3 to 4 percent with a 10 percent increase in labor supply, in some cases. However, if one considers all the relevant factors, most studies have found little to no negative effects on domestic wages as a result of a supply shock in immigration. Additional studies have targeted labor turnover and work duration aspects of different types of worker relating to immigration. Another large set of documentation focuses on estimating the substitutability between hand-labor and technology.

Little focus has been given to estimate the impact of the immigrant workforce from a standpoint of productivity; we have identified only one study that peripherally addressed this issue. This is perplexing since this is one of main arguments of the farmers. That is, the lack of a reliable labor supply causes them to lose or decreased crop production. The present study attempts to fill this gap. The particular activities to be pursued are briefly described next.

1.2 Effect of the H-2A Worker on U.S. Farm Productivity

We use agricultural planning models that simulate the characteristics and conditions of a farming environment for the purpose of quantifying the effect of varying the workforce availability within a typical agricultural-based region. Once the agricultural labor planning tool has been fully developed, the next step is to assess the impact that it would have on the local community relative to the status quo. This impact may be in the form of job displacement for the domestic worker, as well as additional costs/benefits for the local community.

1.3 Effect of the H-2A Worker on Domestic Employment

The second perspective explored by this study is the effect of increasing the H-2A labor force on the employment opportunities of local, domestic workers; since it has been argued that the presence of foreign workers may negatively affect the earnings of the local U.S. population by depressing their wages and/or

taking their jobs. However, there is limited evidence for this assertion in the current literature. The impact of hiring additional H-2A workers on lower wages will be mitigated as federal law requires that H-2A workers be paid at or above the prevailing wage rate. We propose examining the effects of increasing H-2A worker availability under different assumptions with respect to productivity and the relative costs of hiring H-2A workers (as opposed to domestic workers). Sensitivity analyses will be performed in order to test the robustness of our findings.

1.4 Effect of the H-2A Worker on Local Economy

The final objective of the study is to estimate the marginal net benefits of hosting the farmers' optimal number of H-2A workers in the local community versus the status quo level. The local economy perspective includes farmers' profits, net public outlays, and the local multiplier effect. Details on how each of these sectors is defined are as follows:

- *Farmers' profits* are estimated based on the changes attributable to increasing the supply of H-2A workers obtained from our productivity model described in the previous section.
- *Net public outlays* include increases in city and county tax revenues generated by the increased number of H-2A workers (e.g. increased sales tax revenues) less increases in local spending on items such as schools, police, fire prevention, uncompensated medical care, and social welfare payments.
- *Local multiplier effect* is the number of times a dollar generated in a local economy is recirculated within the local economy through the purchase of goods and services produced outside the local area.

1.5 Pilot Study in Yuma County

Yuma County will be the initial pilot for the application of the methodology framework, given its unique geographical characteristics, important agricultural production, and dependence on hard labor. The region is located on the border between Arizona, California and Mexico in the Southwest region of the U.S. and its relative warm winters allows the region to have vegetable production

during the period between November and April, time in which weather conditions in other regions are not nearly as adequate. Furthermore, its proximity to the international border has historically given the farmers ready access to immigrant workers during seasonal labor demand peaks. However, new immigration policies in the state have disturbed the unique labor market environment of the region.

1.6 Current Progress

As part of the research and from speaking to individuals in the area, it is readily apparent that the zone is not exempt from the farm labor shortages experienced in other regions of the country despite its proximity to Mexico. At this stage in the study, a preliminary profile has been developed for the zone that includes reported production levels, as well as the labor requirements for crop production. The information collected will be the basis for further analysis. Some of the results that are already available include:

- A profile of Yuma County that includes the income distribution of the local workforce population, approximate agricultural production levels, labor requirements per crop, approximate composition of the farm labor workforce
- A summary of the H-2A program and its process. This summary also include approximate figures of visa requests by county in the U.S., as well as hourly wages, based on available information

Likewise, a labor planning tool has been developed that attempts to estimate the impact of different policies on the farmers' decisions. This model will be refined to meet the characteristics and conditions of the region. For this thread of the analysis, available results include:

- A linear programming model that considers the basic characteristics and restrictions of a general agricultural labor planning model
- A software based application (CPLEX) that can readily be modified to new agricultural labor planning environments

This tool will be used with information specific to Yuma and will yield an approximation to potential farmers' decision under different scenarios, as well as their associated profits and expenditures. The results for the labor planning model,

combined with region specific data, will provide a full picture of the overall economic impact under different H-2A program scenarios.