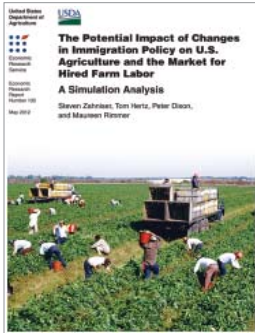


ERS *Report Summary*

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The Potential Impact of Changes in Immigration Policy on U.S. Agriculture and the Market for Hired Farm Labor: A Simulation Analysis

Steven Zahniser, Tom Hertz, Peter Dixon, and Maureen Rimmer

What Is the Issue?

This report explores the possible economic implications of large shifts in the supply of foreign-born, hired farm labor that could result from substantial changes in U.S. immigration laws or policies. Hired labor (including contract labor) is an important input to U.S. agricultural production, accounting for about 17 percent of variable production expenses and about 40 percent of such expenses for fruits, vegetables, and nursery products. Over the past 15 years, roughly half of the hired laborers employed in U.S. crop agriculture have lacked the immigration status needed to work legally in the United States. Thus, changes in immigration laws or policies could lead to markedly different economic outcomes in the agricultural sector and the market for hired farm labor. The same is generally true for other economic sectors that rely on large numbers of unauthorized workers.

To examine how large changes in the supply of foreign-born labor would affect U.S. agriculture, we considered two hypothetical scenarios: (1) a 156,000-person increase in the employment of temporary nonimmigrant agricultural workers, such as those now participating in the H-2A Temporary Agricultural Program; and (2) a 5.8-million-person decrease in the total number of unauthorized workers in all sectors of the economy, including agriculture. These scenarios (15-year projections) are not intended to precisely represent the effects of any specific policy proposals. Instead, they provide an opportunity to consider the economic impacts of sizable changes in the supply of foreign-born farm labor.

What Did the Study Find?

The expanded employment of temporary nonimmigrant agricultural workers would lead to a longrun relative increase in agricultural output and exports. The increases are generally larger in labor-intensive sectors, such as fruits, tree nuts, vegetables, and nursery products. By year 15 of the increased farm labor supply scenario, these four sectors experience a 1.1- to 2.0-percent increase in output and a 1.7- to 3.2-percent increase in exports, relative to the base forecast. Less labor-intensive sectors, such as grains, oilseeds, and livestock production, tend to have smaller increases, ranging from 0.1 to 1.5 percent for output and from 0.2 to 2.6 percent for exports. While agricultural output and exports would increase, the real wages of agricultural workers would decrease by 4.4 percent in the long run, relative to the forecasted wage with no policy-induced

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labor supply change. Increased employment of temporary nonimmigrant agricultural workers would have little effect on the nonagricultural economy, since hired farmworkers make up a small share of the U.S. workforce.

By contrast, a large reduction in the number of unauthorized workers in all sectors of the U.S. economy would lead to a longrun reduction in output and exports in both agriculture and the broader economy, relative to forecasted levels with no policy-induced change in unauthorized labor supply. Fruits, tree nuts, vegetables, and nursery production are again among the most affected sectors, with longrun relative declines from 2.0 to 5.4 percent in output and from 2.5 to 9.3 percent in exports, depending on the modeling assumptions. These effects tend to be smaller in other, less labor-intensive parts of agriculture—a 1.6- to 4.9-percent decrease in output and a 0.2- to 7.4-percent decrease in exports. Real agricultural wages would rise, on average, from 3.9 to 9.9 percent in the long run, relative to the forecasted wage with no policy-induced labor supply reduction. Since unauthorized farmworkers would be in much shorter supply, their wages would increase from 13.6 to 39.8 percent.

Decreasing the size of the unauthorized labor force would reduce the aggregate level of economic production and slightly lower the income that accrues to complementary, U.S.-owned factors of production, such as capital and skilled labor. The lost income would be only partially offset by higher real wages for U.S.-born and foreign-born, permanent resident workers employed as hired farm laborers or in other lower paying occupations where unauthorized workers were formerly more prevalent. In the long run, overall gross national product accruing to the U.S.-born and to foreign-born, permanent residents would fall by about 1 percent, compared with the base forecast. The number of U.S.-born and other permanent resident farmworkers would increase, but not by an amount sufficient to fully offset the decrease in the employment of unauthorized farmworkers. Among the additional U.S.-born and other permanent resident farmworkers are some people who lost (slightly) higher paying jobs as the economy contracted due to the decreased supply of unauthorized labor in all sectors of the economy. This downward shift in occupational composition reduces the *average* real wage of all U.S.-born and other permanent resident workers—agricultural and nonagricultural—from 0.3 to 0.6 percent compared with the base forecast, even as real wages rise in many lower paying occupations.

How Was the Study Conducted?

The authors employed a modified version of the U.S. Applied General Equilibrium (USAGE) Model, a recursively dynamic, computable general equilibrium (CGE) model of the U.S. economy developed by Peter Dixon and Maureen Rimmer of Monash University in Australia and adapted to the U.S. context in collaboration with the U.S. International Trade Commission (USITC). Data for the base year (2005) came from the U.S. Department of Commerce's Bureau of Economic Analysis (BEA). Model structure, extensions, and data sources are summarized in the main text of the report and discussed in greater detail in the appendix.

The model generated a set of 15-year projections for three scenarios:

- Base forecast: Current laws, programs, policies, and trends are assumed to remain in effect, generating a baseline against which the alternative scenarios will be evaluated.
- Simulation 1: The quantity of labor supplied annually to agriculture by people without the U.S. immigration status of permanent residency is assumed to increase by about 30,000 workers in year 1, with the additional number of temporary nonimmigrant agricultural workers rising to about 150,000 in year 15. By comparison, 68,088 positions in the H-2A program (the current avenue by which nonimmigrant workers can be employed in U.S. agriculture on a temporary basis) were certified in fiscal year (FY) 2011.
- Simulation 2: The total number of unauthorized workers in all sectors of the economy, both agricultural and nonagricultural, is assumed to decrease by 5.8 million by year 15 of the forecast, a 40-percent reduction compared with the base forecast. This change corresponds to about 3 percent of the projected size of the total U.S. workforce in year 15.