



A BROKEN BASELINE: THE FLAWED ECONOMICS BEHIND AEWR CALCULATIONS

Blake Brown

Hugh C Kiger Professor Emeritus
NC State University

JUNE 16, 2025

TABLE OF CONTENTS

- 02 Introduction
- 03 Partners
- 04 Executive Summary
- 05 The Issue
- 06 Impacts on Fruit and Vegetable
Consumption, Production and Imports
- 08 Economic Impacts
- 11 Labor Tensions in Agriculture
- 12 Conclusion
- 13 References



INTRODUCTION

Over the past decade, rising labor costs—driven largely by the method used to set wage rates in the H-2A visa program—have reshaped the economics of U.S. fruit and vegetable production. While intended to protect American jobs, the Adverse Effect Wage Rate (AEWR) has increased at a pace disconnected from broader economic benchmarks, unintentionally accelerating offshoring of produce production, raising food prices, and hurting rural economies.

For business leaders, this means growing instability in domestic supply chains and increased reliance on imported perishables. For policymakers, the trend raises critical questions about food security, public health, and the sustainability of U.S. agricultural labor programs.

As part of its commitment to strengthening North Carolina's business climate and rural economies, the NC Chamber commissioned this research to highlight the economic impact of current AEWR policy on U.S. fruit and vegetable production, farmers, and rural communities. In partnership with the NC Chamber, Dr. Blake Brown's research explores an alternative economic reality if AEWR had been indexed to cost-of-living adjustments instead of a compounding methodology, and the significant upside in terms of jobs, production, and economic growth that could result from reform.

PARTNERS



**MICHIGAN FARM LABOR
RESEARCH PARTNERSHIP**



EXECUTIVE SUMMARY

The U.S. fruit and vegetable sector is facing significant headwinds, largely due to rising labor costs associated with the H-2A visa program. This white paper explores the economic consequences of tying H-2A wages to the current Adverse Effect Wage Rate (AEWR) methodology, which has led to compounding wage increases disconnected from broader wage trends or inflation.

To assess the potential impact of a more stable wage-setting mechanism, this paper models an alternative policy scenario in which H-2A wages grew in line with the Employment Cost Index (ECI)—a standard measure of U.S. wage growth—rather than the existing AEWR formula. The report then estimates how this alternative would have influenced domestic fruit and vegetable production, employment, and import levels between 2010 and 2023.

Key takeaways for 2022 under an alternative AEWR policy framework include:

- **518 million** and **823 million** pounds in additional domestic fruit and vegetable output.
- **\$1.073 billion** in total economic impact, with **25,744 jobs** created.
- **290 million** pounds in reduced fruit imports and **474 million** pounds in reduced vegetable imports.

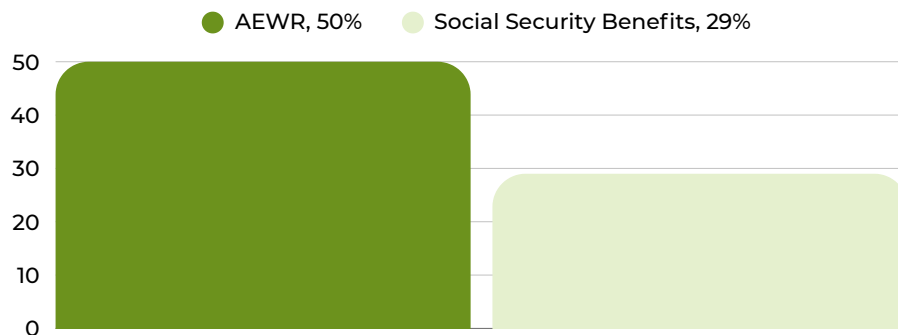
These findings suggest that rethinking the AEWR methodology could strengthen the competitiveness of U.S. agriculture, bolster rural employment, and reduce reliance on foreign produce—all without compromising wage standards when indexed responsibly. As policymakers and industry leaders consider reforms to modernize the H-2A program, aligning wage growth with widely accepted economic indicators like the ECI may offer a more sustainable path forward.

THE ISSUE

The minimum wage for the H-2A agricultural visa program, termed the Adverse Effect Wage Rate (AEWR), increased over 50% from 2012 to 2022, from a national average of \$10.36 to \$15.56 per hour¹. Social Security benefits only increased by 29% in the same period². If the AEWR had increased by the cost of living over this period, it would have increased to \$12.77 per hour. Rutledge et al.⁵ provides statistical evidence that using the current method for setting the AEWR results in higher domestic wages which in turn cause the next year's AEWR to rise; a self-perpetuating upward spiral.

Published studies by USDA show that rapidly rising farm labor wage rates have negatively impacted US fruit and vegetable production, contributing to increased imports³. This study examines the impact of the actual increases in farm labor wage rates versus if the AEWR had been based on the average annual cost-of-living increases.

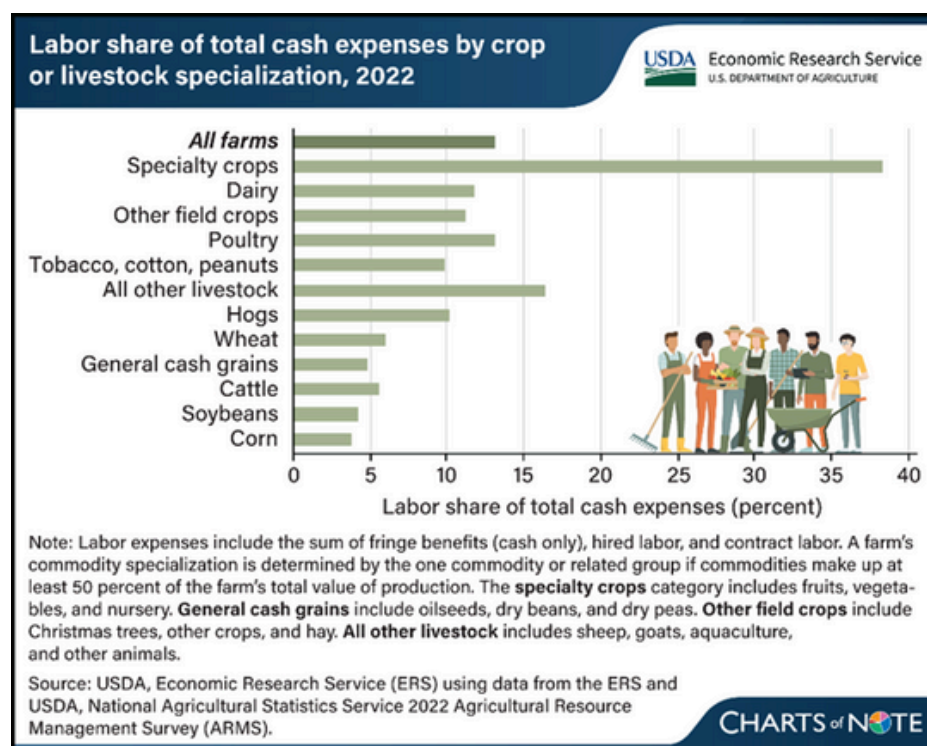
PERCENT INCREASE IN AEWR VS SOCIAL SECURITY BENEFITS 2012 TO 2022



IMPACTS ON FRUIT AND VEGETABLE CONSUMPTION, PRODUCTION AND IMPORTS

If AEWR increases followed U.S. cost of living increases, then the AEWR would have been \$12.77 per hour in 2022 instead of \$15.56; 17.9% lower than the 2022 rate.

Because labor is such a large share of fruit and vegetable production expense⁴ lower wage rates have a substantial impact on fruit and vegetable prices. In 2012, fresh fruit grown on U.S. farms comprised 54% of U.S. fruit consumption. Consumption of U.S. grown fruit has been declining. The country reached a tipping point in 2017 – the first year that U.S. consumed more imported fruit than U.S. grown. In 2022, imported fruit made up 53% of US consumption. The data is not quite as dramatic for fresh vegetables, but in 2022 imported vegetables made up 37% of U.S. consumption. However, U.S. vegetable production continues to decline.



An AEWR 17.9% lower in 2022 would have resulted in lower U.S. fruit and vegetable prices: -1.07% for fruit and -1.28% for vegetables. While these reductions may not sound large, the consequent changes in fresh fruit and fresh vegetable consumption are significant. **U.S. fresh fruit and vegetable consumption would be 108 million and 251 million pounds higher, respectively, at the lower labor costs. While fruit and vegetable prices decline, the lower labor costs would have resulted in increased U.S. production of 518 million and 823 million pounds for fruit and vegetables, respectively. Imported fruit and vegetables would decline by 290 million and 474 million pounds, respectively. Exports of U.S. grown fruit and vegetables also increase.**

U.S. FRESH FRUIT CONSUMPTION: IMPORTED VS U.S. GROWN 2012 & 2022



ECONOMIC IMPACTS

The direct impacts of increased fruit and vegetable production are over 19,000 more farm jobs and increased farm output of \$584 million in US fresh produce production (Table 1). Increased production on US farms impacts the supply chain for U.S. farming with an indirect output increase of \$734 million.

Table 1. Total Economic Impacts		
Impact	Employment	Output
Direct	22,853	\$584,256,643
Indirect	4,087	\$734,174,972
Induced	-1,195	(\$245,861,811)
Totals	25,744	\$1,072,569,804

More employment is created in farming but total employee compensation on farms is lower with lower wage rates resulting in lower employee spending (induced impacts). **The total annual economic impact is \$1.073 billion with 25,744 jobs created.**

Not surprisingly, California is the largest beneficiary of the lower wage rates with 10,530 jobs created and an increase in farm output of \$281 million. The top ten states in terms of impact on employment and farm output are given in Table 2.

The top 10 industries impacted by the reduction in wage rates are given in Table 3. The impact on economic output for various sectors is greatest in Vegetable and melon farming, \$310 million, followed by Fruit farming, \$291 million. These are followed by other industries with support activities for agriculture and forestry having an increase in output of \$119 million. Other agricultural sectors are also among the top 10 impacted, and a number of non-agricultural industries such as real estate, petroleum refineries and insurance carriers are among the top 10 most impacted.

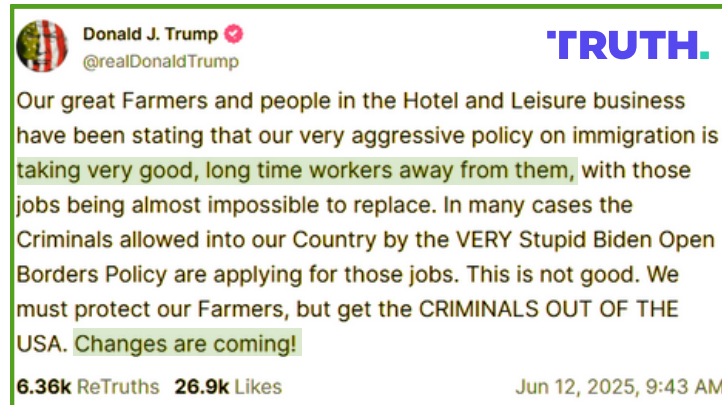
Table 2. Total Impacts on Employment and Output Top Ten States		
State	Employment	Output
California	10,530	\$281,327,159
Washington	2,953	\$75,151,450
Florida	1,087	\$26,456,228
Oregon	622	\$15,672,317
Michigan	694	\$15,500,725
Arizona	574	\$15,373,968
North Carolina	554	\$15,334,998
Wisconsin	593	\$13,988,534
Georgia	433	\$12,070,454
New York	514	\$11,758,932

Table 3. Top 10 Industries Ranked by Impact on Output

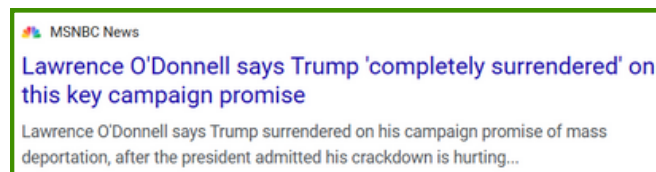
Industry	Impact on Output
Vegetable and melon farming	\$310,341,075
Fruit farming	\$291,131,876
Support activities for agriculture and forestry	\$119,478,054
Other real estate	\$64,966,701
Pesticide and other agricultural chemical manufacturing	\$59,481,557
Wholesale - Other nondurable goods merchant wholesalers	\$48,481,629
Nitrogenous fertilizer manufacturing	\$19,734,565
Petroleum refineries	\$16,978,075
Insurance carriers, except direct life	\$14,607,989
Other basic organic chemical manufacturing	\$10,227,947



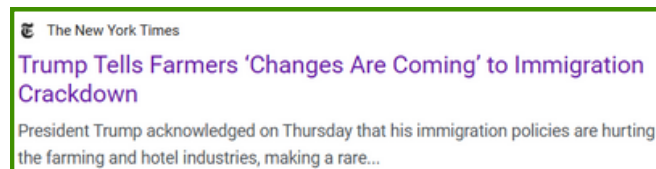
LABOR TENSIONS IN AGRICULTURE



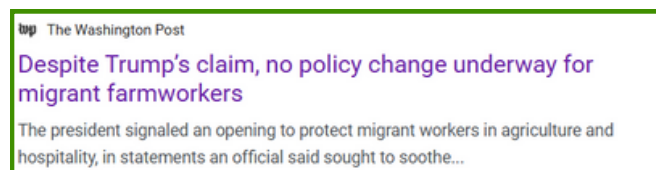
Social media post from Donald J. Trump referencing the impact of immigration policy on the agriculture and hospitality industries.¹⁰



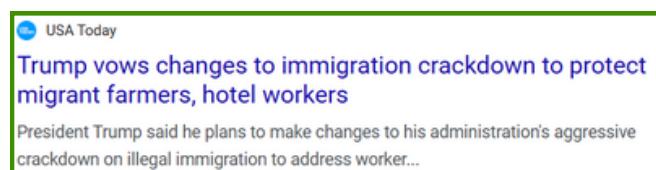
News headline from MSNBC.¹¹



News headline from The New York Times.¹²



News headline from The Washington Post.¹³



News headline from USA Today.¹⁴

CONCLUSION

A more reasonable way of setting the AEWR (e.g. indexing it to cost of living increases) will result in more jobs for both domestic workers and legally vetted farm workers holding government-issued temporary visas, more economic growth in rural farming communities and more consumption of fresh produce by U.S. consumers.

REFERENCES

1. National Council of Agricultural Employers: Data and Statistics. The AEW National Average. <https://www.ncaonline.org/resources/data-and-statistics/> Accessed 1/10/2025.
2. Social Security Administration: Cost-Of-Living-Adjustments. <https://www.ssa.gov/oact/cola/colaseries.html> Accessed 1/15/2025.
3. Calvin, Linda, Philip Martin, and Skyler Simnitt July 2022. Adjusting to Higher Labor Costs in Selected U.S. Fresh Fruit and Vegetable Industries, EIB-235, U.S. Department of Agriculture, Economic Research Service.
4. Subedi, D. and A. Giri. Specialty crop farms have highest labor cost as portion of total cash expenses. USDA-ERS. Charts of Note. 10/15/2024. Accessed May 7th, 2025.
5. Avg Annual Inflation Rate: Bureau of Labor Statistics
6. Rutledge, Z., M. Castillo, T. Richards, and P. Martin. H-2A Adverse Effect Wage Rates and U.S. Farm Wages. 2023 Working Paper, University of CA-Davis.
7. IMPLAN® model, 2022 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com
8. Ingersoll, D. Revised Armington Elasticities of Substitution for the USITC Model and the Concordance for Constructing a Consistent Set for the GTAP Model. US international Trade Commission. January, 2004
9. Espey, M. and D. Thilmany, 2000. Farm Labor Demand: a Meta Regression Analysis of Wage Elasticities. Journal of agricultural and resource economics space 25 (1): 252-266.
10. Trump, Donald J. June 12, 2025. Statement on immigration policy and labor impacts. Truth Social. <https://truthsocial.com/@realDonaldTrump/posts/114670684664650262>
11. O'Donnell, Lawrence. June 12, 2025. "Trump 'Completely Surrendered' on This Key Campaign Promise." MSNBC. <https://www.msnbc.com/top-stories/latest/lawrence-odonnell-trump-surrender-farm-workers-immigration-rcna212825>
12. Jackie Calmes and Peter Eavis. June 12, 2025. "Trump Says Hotels and Farmers Are Hurt by Immigration Crackdown." The New York Times. <https://www.nytimes.com/2025/06/12/us/politics/trump-farmers-hotels-immigration.html>
13. Allison, Natalie; LeVine, Marianne; Alfaro, Mariana. June 13 2025. "Despite Trump's Claim, No Policy Change Under Way for Migrant Farmworkers." The Washington Post.
14. USA Today. June 12 2025. "Trump Says Immigration Crackdown Is Hitting Migrant Farmers, Hotel Workers." USA Today. <https://www.usatoday.com/story/news/politics/2025/06/12/trump-immigration-migrant-farmers-hotel-workers-deported/84166061007/>

