

Examination of Impact of Changes of Minimum Wage and Overtime Thresholds to New York State Berry Farmers

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[2018 New York State Berry Market Analysis: Pricing Information of Local Berries](#)

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Executive Summary

NYS berry enterprises are very diverse, be they stand alone operations or one of multiple enterprises of a farm business. Growers sell berries through multiple market channels with most having some U-pick sales. According to the USDA 2017 Census of Agriculture, approximately 1,500 farms grow berries on 4,200 acres. It lists 10 berry species grown within the State with blueberries, raspberries and strawberries cultivated on over 80% of the acreage. NYS berry sales totaled over \$19 million in 2017. The New York State Berry Growers Association (NYSBGA) is interested in how the change in minimum wage would impact berry sector. But complicating this interest is the State's stepped-down approach to decreasing the overtime thresholds for farm labor from 60 hours currently to 40 hours in 2032. A 2-part survey was developed by Cornell researchers and completed by 6 berry growers who shared 2021 wage and labor information along with preferences for strategies to mitigate increases in hourly labor costs and changing overtime thresholds.

Survey results show that berry growers rely on a diverse labor supply that includes local, seasonal, H-2A, part- and full-time workers for pre- and post-harvest and harvest activities. Increasingly, more farmers are relying on H-2A workers to complete pre-harvest and harvest work. Approximately one-quarter of total work time is devoted to the pre-harvest and 60% is devoted to picking and packing the berry crop in the field. Wages comprise 50% to 60% of total operating expenses on berry farms. Most growers pay higher than minimum wages to be competitive in local labor markets and to attract and retain preferred employees.

NYSBGA board members suggest that the Agricultural Employee Wage Rate (AEWR) is more of a driver to increase hourly wages than increases in the minimum wage. Change in NYS minimum wage increases coupled with a conservative 4.0% increase in AEWR and decreases in overtime thresholds found an average year-over-year 5.0% increase in hourly wages with a range of 3.6% to 6.9% between 2022 and 2032. Notable is the estimated 6.7% increase in 2023 resulting from the \$1.00 increase in minimum wage to \$14.20. Further, applying the 4.0% AEWR coupled with the overtime threshold of 44 hours in 2030 and overtime threshold of 40 hours in 2032 increases estimated hourly wages by 6.9% and 6.6% respectively.

The estimated increases in wages per year are approximately double the CPI for food in the last decade, and labor expenses represent around 50% of the cost of production on berry farms. Solutions to the imbalance of production costs and willingness of consumers to bear increased prices will be important to preserve the NYS berry sector.

Growers identified several strategies to manage increased labor costs. They would consider raising prices to offset costs of increased wages but questioned if the market would bear this strategy as a long-term solution. Some growers indicated that operations would remain mostly unchanged as wages increased. Few indicated that they would stop growing berries. Several indicated they would develop strategies to improve employee productivity, which could include elimination or reduction of non-essential production tasks or investment in some type of mechanization. Others suggested that capital investments would be delayed as more farm income was channeled to pay higher labor costs.

Strategies to manage change in overtime thresholds are similar to managing increases in wages at the 50-hour threshold. Again, growers would consider investment in machinery or equipment that improves labor productivity while postponing other capital purchases. Worker hours and

employer needs are near equilibrium at the 50-hour overtime threshold. Workers average slightly over 50 hours per week and farmers require approximately 50 hours per worker to accomplish the needed pre-harvest and harvest tasks. Employers would hire additional workers to reduce hours of overtime pay, despite concerns about availability of local and H-2A workers. More would downsize the berry operation rather than terminate the berry enterprise.

Farm employers and employees have worked together to advocate for changes in overtime thresholds that would benefit both the business and employees. In response to the stepped-down labor threshold promulgated by the NYS labor commissioner in 2022, the NYS legislature passed the Farm Employer Overtime Tax Credit within the budget bill that was subsequently signed into law by the governor. Eligible farmers can apply for a tax credit for reimbursement of the premium paid for hours above the overtime threshold.

NYS berry growers grapple with ways to manage the increasing wages paid to attract and retain needed workers. Wages must be competitive with other nearby employment opportunities. Particularly troublesome is how the step-down in overtime threshold coupled with the mandatory day of rest will impact farm operations. This is less problematic at the 50-hour overtime threshold. As overtime thresholds decline to 40 hours, farmers will have to reexamine their options and either pay more overtime hours to existing employees or hire additional employees. Early concerns were voiced that H-2A workers will not come to NYS if farmers choose to hire more workers at regular pay or right-size operations to reduce the number of overtime hours, especially below the 50-hour threshold. The Farm Employer Overtime Tax Credit provides some relief and mitigates this concern. Growers need to consider how the berry enterprise adds value and contributes to the goals of the business, analyze labor needs, worker availability, compensation, and other costs to determine how best to manage expenses, preserve profits, and improve business viability.

Introduction

The New York State (NYS) berry sector is impacted by market and labor forces in and outside of the state. NYS growers compete with other growers with lower production costs located in other states. Historically, growers received price premiums for fruit harvested at the beginning and end of the growing season. New varieties grown in other areas and sold in NYS compete in the marketplace with locally sourced berries throughout the harvest season. The nature of the labor force is changing. The production agriculture sector is challenged to find local workers willing to plant and harvest crops. There are fewer unauthorized migrant workers available to work on farms as persons crossing the border choose to work in other sectors. And long-term, unauthorized workers in the U.S. for decades no longer choose to work in the fields. The H-2A temporary agricultural program provides a means for growers to access a legal and interested workforce. Farmers employing H-2A workers must meet regulatory requirements not required when hiring local workers, including housing and transportation to and from the job site along with transportation to and from the country-of-origin housing at the beginning and end of the growing season.

Study Rationale

NYS farm employers are regulated by the U.S. Department of Labor Federal Fair Labor Standards Act and the NYS Labor Laws enforced through the NYS Department of Labor, including overtime standards that apply. The 2019 passage of the Farm Laborers Fair Labor Practices Act called for the formation of the NY Farm Labor Wage Board to examine hourly overtime thresholds. The NY Farm Labor Wage Board held several public hearings and meetings and on January 28, 2022 in a 2 to 1 vote adopted three resolutions (subsequently supported by the NYS Department of Labor Commissioner) calling for the following.

Resolution 1. The overtime threshold for farm workers, which is currently set at sixty hours be reduced to forty hours.

Resolution 2. The reduction of the overtime threshold from sixty to forty hours be phased in over ten years with reductions of four hours on a biannual basis.

Resolution 3. The phase-in schedule will begin on January 1, 2024 with a threshold set at 56 hours; on January 1, 2026, with a threshold set at 52 hours; on January 1, 2028, with a threshold set at 48 hours; on January 1, 2030, with a threshold set at 44 hours; on January 1, 2032, with a threshold set at 40 hours.

Salaried workers and, in certain instances, family labor are exempt from minimum wage and overtime regulations. Hourly workers are not exempt from such regulations.

The Farm Workforce Retention Credit allows eligible farm employers to receive a refundable income tax credit for each eligible farm employee working at least 500 hours. These tax credits increased from \$250 in 2017 to \$1,200 per eligible farm employee through January 1, 2026. Further, the NYS legislature passed the Farm Employer Overtime Tax Credit. The new tax credit is designed to provide reimbursement for a portion of the premium overtime labor costs paid by farm employers.

Members of the New York State Berry Growers Association (NYSBGA) are concerned about how the increase in minimum wages paid to employees will affect the sector. Of equal or even greater importance is the change in the overtime threshold and implications to attract H-2A

temporary workers. As a result, the staff of the Charles H. Dyson School of Applied Economics and Management and Cornell Cooperative Extension worked together with support provided by NYSBA to examine the impact of changes in minimum wage rates and overtime thresholds.

This report focuses on strawberries, blueberries, and raspberries. The report includes an overview of the NYS berry industry derived from secondary data, including the U.S. Census of Agriculture, the National Agriculture Worker Survey (Hernandez and Gabbord 2018), relevant journal articles, extension bulletins, and trade publications. Next, 6 farm scenarios, developed from interviews with berry growers, are utilized to examine the impact of minimum wage increases and changes in overtime thresholds on their respective farm operations. The report concludes with grower reaction to potential management strategies and implications for the future.

Overview of the New York State Berry Sector

Berry consumption in the U.S. has surged and the U.S. has increased production and imports to meet demand. The total number of U.S. farms reporting berry production increased by 4,500 farms or 18% along with an 8% increase in market value. At the same time the total number of U.S. farms and market value, in general, dropped as average market value of products sold increased (Table 1). The value of berry production per farm declined by 9%. Similar to the U.S., the number of NYS farms with berries increased by roughly 200 farms or 16%. Counter to the U.S. decrease, market value of the berry crop increased \$4.2 million or 28%. The number of NYS acres in berries increased only slightly (0.5%) from 2012 to 2017 (U.S. Census of Agriculture, New York State, Table 32). Blueberries (wild and tame), raspberries (all varieties), and strawberries account for 86% of total berry acres (U.S. Census of Agriculture 2017, New York State Tables 32 and 38).

Table 1. Market value of agricultural and berry crops, 2017 and 2012

	U.S.		New York	
	2017	2012	2017	2012
All farms:				
Number of farms	2,042,220	2,109,303	33,438	35,537
Market value of all agricultural products (\$1,000)	388,522,695	394,644,481	5,369,212	5,415,125
Average market value per farm	190,245	187,097	160,572	152,380
Farms with berries:				
Number of berry farms	29,104	24,553	1,463	1,262
Market value of berry crops (\$1,000)	3,708,753	3,442,262	19,167	14,973
Average market value of berries per farm	127,431	140,197	13,101	11,865

Source: U.S. Census of Agriculture 2017, New York State, table 2.

In addition, 116 (8%) berry farms accounted for 75% of total market value of berries sold in 2017 (USDA, Agricultural Census 2017). Despite this concentration, New York berry farms are small on average and sold one-tenth the market value of by the average U.S. berry farm (Table 1).

Labor Overview

Several studies show that labor is the largest individual expense on berry farms. Table 2 shows total labor share of U.S. farm operating expense in the fruit and nut sector which is nearly 40 percent, with contract labor (workers supplied and managed by a third party) share of 14.7% and hired labor's share of operating expenses is 24% (Zahniser, 2018). *Rural Migration Blog* (2021) reports that labor costs on California strawberry farms are the largest single expense, "representing 50% to 60% of variable production costs."

Table 2. Labor's share of U.S. agriculture operating expenses, by select sectors

	Contract labor	Hired labor	Total (contract plus hired)
% of operating expenses			
Total, U.S. agriculture	2.0	8.2	10.2
Vegetable and melon farming	8.3	18.8	27.1
Fruit and tree nut farming	14.7	24.0	38.7
Greenhouse, nursery, and floriculture production	2.8	37.6	40.4

Source: Zahniser, et al. 2018.

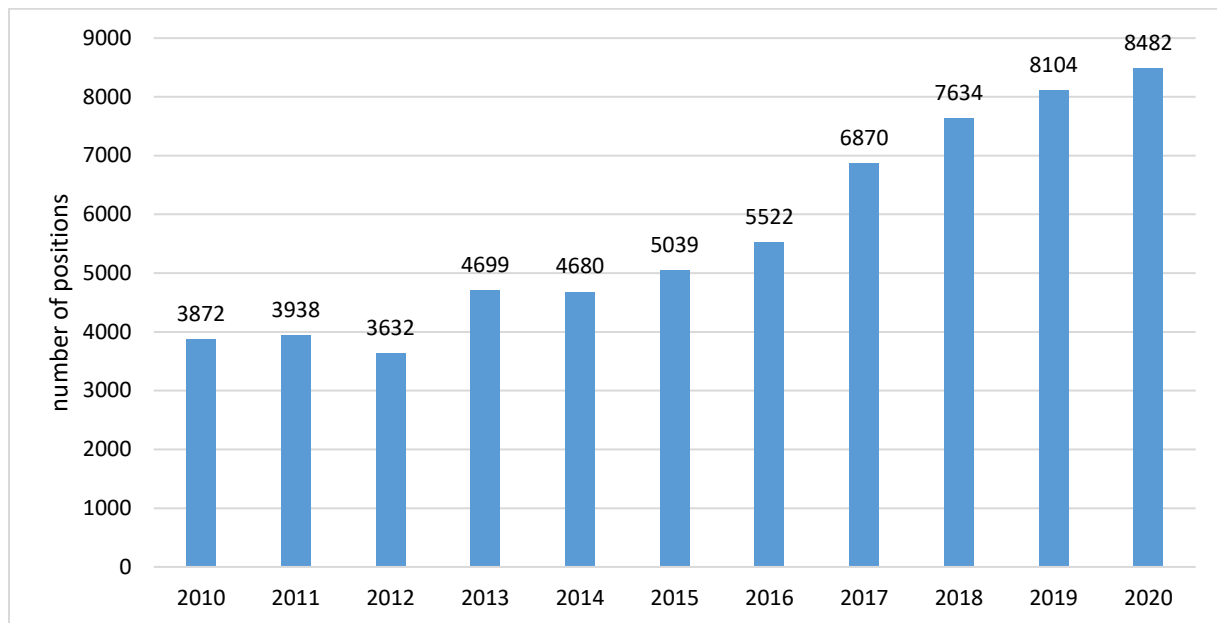
Who works on berry farms?

Farm work is physically demanding work. This, along with working in all weather conditions and the seasonal and skilled nature of the work, make it difficult to attract, hire, and retain the necessary workforce. Farm operations in the U.S. rely on the labor efforts of owners and family members; full-time, part-time, seasonal-local, and settled workers along with the offshore workers such as H-2A and migrant workers. Migrant workers who used to "Follow the crop" are now rare, accounting for 5% of the farm labor force (USDA, Economic Research Service, Farm Labor website).

Many farms use the H-2A, Temporary Agricultural Program, to access workers to perform seasonal labor on a temporary basis that should not exceed 10 months. New York farms, in particular, have benefited from the program. Figure 1 shows that the number of H-2A workers in NYS has doubled in the past 10 years, rising from almost 3,900 workers in 2010 to nearly 8,500 workers in 2020.

Another option, less frequently used to supplement local labor, is through contract labor. Approximately 2 percent of U.S. farms and 1 percent of New York farms utilized contract labor in 2012 and 2017 (Census of Agriculture 2017a Table 4.)

Figure 1. Number of H-2A workers in NYS



Source: USDA, Economic Research Service using data from U.S. Department of Labor, Office of Foreign Labor Certification.

Calvin and Martin (2010) reported that between 2005-2007, 52% of the hired workers in crop agriculture were unauthorized workers, 27% were U.S. citizens, and 21% were authorized immigrants. They further noted that most unauthorized immigrants move into nonagricultural sector employment within a decade of beginning work in the fields. The U.S. Department of Labor, National Agricultural Workers Survey (Hernandez and Gabbord 2018) reports that the legal, authorized workforce share, excluding H-2A and workers on dairy, livestock, and poultry farms, has been approximately 50% for the past couple of decades. Charlton, et al. 2019 and Zahniser 2018 argue that the supply of farm workers from Mexico will likely shrink due to declining birth rates, better education, and pursuit of occupations outside of agriculture.

What do they do?

The National Agricultural Workers Survey (Hernandez and Gabbord 2018) collects data on the type of work farm labor performs along with the time it takes to complete that work. Table 3 shows that primary labor tasks for U.S. farms overall were split among pre-harvest, harvest, post-harvest, and semi-skilled work. Fruit and nut farm workers reported more time spent harvesting than other farm tasks. The nature of the work is likely different for berry workers compared to other fruit workers. Workers tend to pick and pack berries in the field, unlike apples that are graded and packed post-harvest in packing sheds on or near a farm or grapes that are mechanically harvested for juice and wine.

Table 3. Primary task at current farm at time of interview, 2017-18

Primary task at current farm job:	U.S. farms	Fruit & Nut farms
	% of respondents	
Pre-harvest	23%	21.9%
Harvest	24%	35.5%
Post-harvest	19%	10.7%
Semi-skilled (e.g., equipment operator)	34%	32.0%

Source: National Agricultural Workers Survey, Summary Reports, Data Tables and Presentations, Data Tables, <https://www.dol.gov/agencies/eta/national-agricultural-workers-survey/research/data-tables>, accessed 8-29-2022.

How much do they get paid?

NYS farm employers are regulated by the U.S. Department of Labor Federal Fair Labor Standards Act, and the NYS labor laws are enforced through the Division of Labor Standards, including minimum wage and overtime standards that apply. NYS minimum farm wage for the study season in 2021 was \$12.50 for persons working in Upstate NY, \$14.00 per hour for persons working in Westchester, Nassau, and Suffolk counties, and \$14.99 for NYS guest workers (H-2A). Overtime pay (150% of regular wages) is triggered at the 60-hour threshold.

A Farmer's Guide to the New York State Department of Labor (New York State Department of Labor 2020) outlines how farm workers are to be paid. New York State farm employers utilizing H-2A workers pay the higher of the applicable NYS or federal minimum wage; or the prevailing wage in the region and occupation, as determined by the U.S. Department of Labor; or the regional average farm wage observed in NASS Farm Labor Survey (FLS) or the Adverse Effect Wage Rate (AEWR).

AEWR is the minimum wage that the U.S. Department of Labor (DOL) has determined that must be offered and paid to U.S. and alien workers by employers of H-2A agricultural workers. That determination helps ensure the DOL meets its statutory obligation to certify that the employment of H-2A foreign workers will not have an adverse effect on the wages of agricultural workers in the United States (U.S.) similarly employed. Non-H-2A workers must be paid the higher of the state minimum wage or federal minimum wage. Non-H-2A workers doing the same work as H-2A workers must be paid at minimum the higher of the AEWR or prevailing wage. Table 4 shows that minimum wage and the adverse effect wage rate (AEWR) have steadily increased over the past 7 years. AEWR wages are approximately 20% higher compared to minimum wage rates. H-2A employers pay for transportation of the workers to and from the farm and provide housing in addition to wages.

New York State employers may pay minimum wage for lesser-skilled, entry level positions. However, to attract and retain the needed workers, employers likely pay at rates higher than the state minimum wage. The Cornell Agricultural Workforce Development program surveyed farms in 2018 (Stup 2019) to benchmark how farm employees are compensated. The average wage for hourly workers in 2017 reported by 59 farm respondents was \$13.93 when the NYS minimum wage was \$9.70. The average tenure of these farm workers was 7.2 years. Minimum wage increases for entry-level positions, coupled with cost-of-living adjustments for long-term employees, will push average hourly labor costs above the minimum wage. The U.S. Bureau of

Labor Statistics Occupational Employment and Wage Statistics database reports "Farmworkers and Laborers, Crop, Nursery, and Greenhouse" mean hourly wages as \$15.56 in 2017 and \$16.05 in 2021, further indicating that farm employers pay higher than minimum wage.

Table 4. Hourly wage rates for NYS farm workers

Year	NYS minimum wage (Upstate)	NYS minimum wage (Westchester Co., Long Island)	Adverse effect wage rate-NYS	Difference, AEWL less minimum wage
(dollars)				
2016	9.00	9.00	11.74	2.74
2017	9.70	10.00	12.38	2.68
2018	10.40	11.00	12.83	2.43
2019	11.10	12.00	13.25	2.15
2020	11.80	13.00	14.29	2.49
2021	12.50	14.00	14.99	2.49
2022	13.20	15.00	15.66	2.46

Source: NYS Department of Labor Historical Trends & U.S. Department of Labor AEWL Trends

What about overtime?

Both farm employers and H-2A workers have raised concerns about lowering the overtime threshold. In *Effects of NY Overtime Laws on Agricultural Production Costs and Competitiveness* (Wolf, Stup, Karszes 2021), a study of fruit and vegetable farmers found that the 60-hour threshold presented less of a challenge, although the required day of rest often resulted in some overtime paid to workers. As a result, study respondents tightened up their management of current labor performance and hours before reallocating labor to other tasks or crops that would contribute the greatest profitability.

At the 50-hour overtime threshold, farm employers would prefer to hire additional labor (local and/or H-2A) to spread hours across multiple employees and avoid overtime pay. However, most farmers do not believe that additional labor is available to support such a strategy. If they choose to increase the number of H-2A workers, an additional investment in housing would be needed. Farmers also raised concerns about attracting H-2A workers to New York State when contract hours are lessened. Farmers would reduce the number of enterprises in which they engage and eliminate labor intensive crops. At the 40-hour threshold, half of the fruit and vegetable farmers indicated that they would shrink their enterprises or eliminate labor intensive crops.

The study summarized the preferences of 69 H-2A workers. Nearly 60% of respondents indicated that they worked on a particular farm because of the wages they received and the connection with family or co-workers. Slightly over 33% of respondents indicated that the quality of the housing was important when choosing a farm to work. Nearly 75% of the workers had received overtime pay in 2021. They work an average of 53 hours per week. Nearly half of the workers indicated that their weekly hours were capped.

The survey of H-2A workers confirmed the concern raised by NYS farmers. "If hours were capped at 50 hours per week, 56% indicated they would be less likely to continue at their current

job while 39% indicated that it would not affect the likelihood they would continue and 5% more likely. Considering a potential 40-hour per week cap on hours, 72% indicated that they would be less likely to continue at their current job while 28% said it would not matter. When respondents were asked, “If work hours were not capped (limited) in other U.S. states, while they were in New York, would you consider going to that state instead of New York for work?” 70% of respondents indicated that they would consider going to a state without limits on weekly hours (Wolf, Stup, Karszes 2021).

H-2A workers' primary reason for working in the U.S. is to maximize their income to improve the lives of their families in their home countries. H-2A workers receive at minimum AEWR hourly rates. Illustration 1 shows the AEWR rates for all states in 2021. Comparing states surrounding NYS, AEWR rates in New England states equaled NYS rates with Pennsylvania slightly lower. Four states (Hawaii, Minnesota, Colorado, and Maryland) have developed overtime threshold regulations. California, Washington, and New York State have or are working towards a 40-hour overtime threshold. H-2A workers are likely to explore employment opportunities within states outside of NYS that pay similar or higher AEWR wages and do not have overtime thresholds.

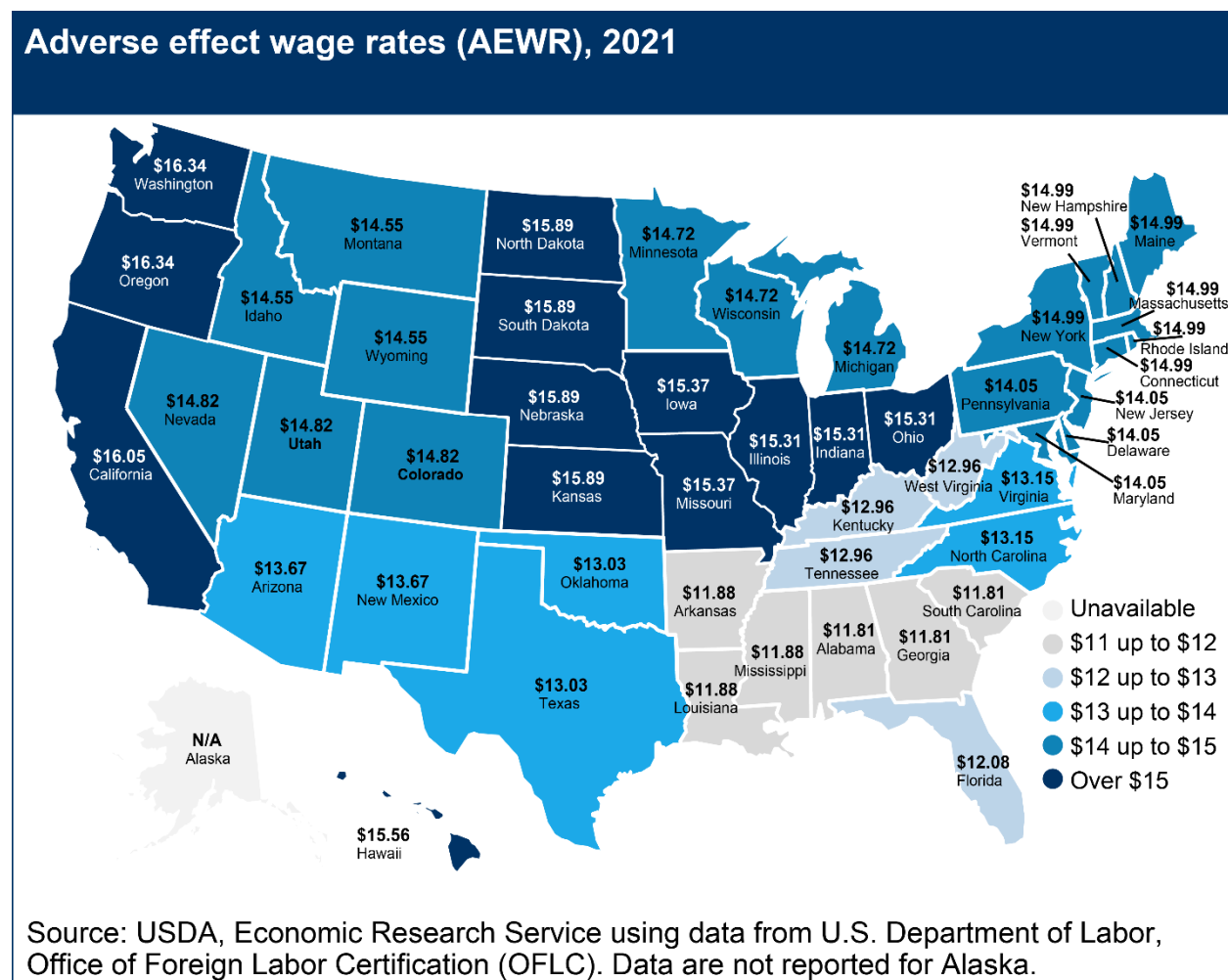


Illustration 1. Adverse effect wage rates (AEWR) 2021.

What Will Be the Impact?

Overall, most farms pay more than minimum wage to hourly workers. Increases in minimum wage to entry level employees exert upward pressure on hourly wages paid to all employees. Some recent studies of the impact of labor policies such as increases in minimum wage and decreases in overtime thresholds on NYS farms have been conducted, although none specifically for berry farms.

Wells and Ifft (2017) examined the impact of changes in minimum wage combined with decreases overtime thresholds to the NYS apple industry based on 2015 production data on each of 4 apple farms. They reported the anticipated increase in minimum wage (to \$15) would result in a 43% increase over 6 years, approximately 7% each year. The impacts varied depending on the starting wage rate and how labor was utilized. Table 5 illustrates the percent increase in labor costs for each of the farms under the 4 overtime thresholds.

Table 5. Percent increase in hourly wages under different overtime scenarios for the 2015 production season, incremental to increase in minimum wage

	Farm A	Farm B	Farm C	Farm D
Number of hourly employees	47	77	46	62
Average wage	\$12.02	\$12.61	\$13.22	\$11.89
Hourly wages as a percent of total operating expenses	33%	31%	33%	37%
Incremental OT of 40 hrs	8.3%	12.9%	6.5%	18.7%
Incremental OT of 8 hrs daily	5.3%	8.4%	4.1%	8.0%
Incremental OT of 50 hrs	2.6%	6.4%	1.8%	9.8%
Incremental OT of 60 hrs	0.3%	2.2%	0.5%	3.6%

Source: Wells & Ifft, 2017.

Imposition of an overtime threshold of 40 hours (OT 40) contributed to the largest increase for each the farms as most workers work more than 40 hours per week. Table 5 shows that overtime threshold of 8 hours per day (OT 8) contributed to the second highest increase. According to Wells and Ifft, “This indicates that workers are not working more than 1-2 hours over 8 on any given day but work 6 full days week.” The OT 8 scenario increase in hourly wages ranged between 4% to over 8% for each of the farms. An overtime threshold of 60 hours would have the least effect on hourly wage rates. Further, Wells and Ifft calculated that a combination of minimum wage increase coupled with the 40-hour overtime threshold starting in 2018. The total rate increase would range between 35% and 70% over 4 years depending on the farm, significantly affecting farm profitability and viability.

Farm Credit East (Cosgrove and Laughton, 2021) estimated the impact of the scheduled increases in minimum wage from 2016-2020, along with a decrease in the overtime threshold from 60 hours/week to 40 hours/week. They compared the cost of labor and farm income as reported by USDA-Economic Research Service from 2016-2020 to the cost of labor and farm income if the farms had to pay the 2022 minimum wage of \$13.20 and overtime using a threshold of 40 hours per week. Using these calculations, they report that, “Combined minimum

wage increases and estimated mandatory overtime pay for farm employees in NYS would have resulted in higher agricultural labor costs of \$264 million per year from 2016-2020. With a mandatory overtime of 40 hours and minimum wage of \$13.20 farm labor costs would have been greater by 42% over the 5 years.”

Cornell University faculty and staff examined the impact of threshold changes from overtime exempt to 60 hour per week overtime threshold (Wolf, Stup, Karszes, 2021). Using data provided by Farm Credit East, researchers report that total wage expenses on fruit farms increased 6.8% in 2020 relative to 2019 due to the change in overtime for ag employers and 10.1% in 2020 on vegetable farms.

NYSBGA-Cornell Berry Labor Study

New York Berry Growers Association cooperated with the Dyson School at Cornell University to determine the impact of changes in minimum wages. Change in NYS Farm Labor laws suggested a need to incorporate change in overtime thresholds into the analysis. The study objectives were to:

1. Determine the impact of an increase in minimum wage to berry growers in NYS
2. Examine the impact of change in overtime from 60 hours maximum to 50 and 40 hours per week
3. Describe changes to on-farm practices, operations, management, and business, by berry growers under the following scenarios:
 - a) increase in minimum wage under the current 60-hours per week work overtime threshold
 - b) increase in minimum wage with concurrent decrease to 40-hour week overtime threshold

Methodology

New York berry enterprises range in size from less than an acre to over 100 acres. Berry enterprises can be stand-alone operations or part of multiple businesses of one farm operation. To add to this complexity, the marketing channels berry growers can sell within vary, resulting in different labor requirements.

A survey was developed to describe berry farm labor, including a description of the berry enterprise, the number of employees, hours worked (separated as regular and overtime), and hourly wages paid. Further the survey captured response to grower strategies to manage increase in minimum wage and grower response to the stepped-down decrease in overtime thresholds. Cornell University extension and CCE educators used structured interviews to collect the data from 6 berry farms. The data was used to develop 6 scenarios described in Table 6. More responses would have strengthened the analysis. Still, the number of responses is useful to describe the variety of labor uses on berry enterprises located in NYS.

Data were collected in 2 rounds:

Round 1: Researchers interviewed NYS berry growers and gathered current labor cost information. Changes in labor wages resulting from an increase of minimum from \$12.50 (2021) to \$15.00 (estimated to occur in 2025) were calculated. After the impact of the increase in minimum wage was calculated, researchers then calculated the expenses of decreasing the overtime threshold from 60 hours per week to 50 and to 40, without any compensatory changes to farm operations.

Round 2: After the increases in labor expenses have been calculated, we presented our round 1 calculations to our sample farms and asked them to complete a follow-up survey, asking how the estimated increase in wage expenses might impact their farm and what management decisions they might make to their operations.

Table 6. Scenario descriptions

SCENARIO	OPERATIONS	SALES	LABOR
1	The farm grows 3 berry crops, strawberries, blueberries, and raspberries. It also farms vegetables and cut flowers and rents farmland to another farmer. Berries are an important part, 40%, of total farm sales.	The large majority of sales (72%) are direct to consumer; in addition, 14% are for U-pick and 14% to restaurants, institutions, or schools.	Supply of labor has been difficult, best supply from teachers or immigrant labor. This farm has 2 full time family owner/operators. The farm also employs 3-4 part time workers from May-October and 1 full time employee from mid-April to end of December.
2	The farm grows 6 berry crops on approximately 25 acres. It also farms vegetables, grapes, tree fruit and row crops.	The most important sales outlet for berries is their direct-to-consumer market. They also sell about 25% of their berries through U-pick, some berries are sold to retailers and other institutions	The whole farm has almost 40 H2A workers and about 30 adult and high school seasonal workers. They have 16 year round full time employees. Family members also work on the farm.
3	The farm grows 2 berry crops on 6 acres. It also farms vegetables, tree fruits, and some small grains and has an agritourism enterprise. Berries are a relatively small part of total farm revenue.	Berry sales are about 5% of farm revenue. Almost all, 85%, of their berry sales are through their upick business, although they sell a portion of their berries through other direct-to-consumer channels, such as their farm stand.	Their employees are all cross trained to work in the tree fruit and berry enterprises.
4	This is primarily a tree fruit farm with a berry enterprise.	Berries are a small part (10%) of their farming operations and 100% of berry sales are from sales to wholesale or retail accounts.	They use H2A workers for berry maintenance and harvest; June-August season. After the berry season, the workers move to the apple orchards. A supervisor comes with the H2A workers. Part of a manager's time and part of the owner's time are also used in the berry enterprise.
5	Berries are part of this diversified farm that grows vegetables and some row crops in addition to their berries. Strawberries are the primary berry crop although the farm also grows blueberries and raspberries.	The berry enterprises are approximately 12% of total farm sales. 60% of berry sales are U-pick and the rest are direct-to-consumer.	Labor expenses are about 50% of total cost of production. The farm employs seasonal labor for the farm stand and 4 seasonal H2A workers from March-December. 2 employees work year round.
6	The farm has just one crop which is blueberries.	Sales (70%) are primarily U-pick. Other sales channels include: 15% other direct to consumer; 7.5% direct to retailer; and 7.5% are to others such as restaurants, institutions, or schools.	The farm has seasonal local labor. No immigrant or H2A labor is used. The only year-round labor is the owner.

Results

What does labor do on NYS berry farms?

Farm labor performs varied tasks in the scenarios resulting from this study (Table 7). Allocation of labor between the scenarios is different depending on the goals of the operator and farm's enterprises. For example, the primary crop of the farm might be apples. Berry operations provide labor something “to do” during the summer months when less time is needed to be spent in the orchard. For other enterprises, berries add to the diversity of products offered to customers at farmstands, farmers markets, and CSAs. For others, berry crops are the primary business of the farm enterprise.

Table 7. Labor allocated to farm activities, by scenario

Scenario	Pre-harvest	Harvest	Warehousing & Packing	Sales & Marketing	Management
Percent of Total Labor Hours					
1	40	60	0	0	0
2	15	65	5	10	5
3	40	5	5	40	10
4	19	76	0	2.5	2.5
5	25	65	10	0	0
6	5	59	7	25	4
Range	5-40	5-76	0-10	0-40	0-10
Average	24.0	55.0	4.5	12.9	3.6

The differences in the tasks farm labor performs can be attributed to the diversity of the farm enterprises. Some NYS data are like those reported by Hernandez and Gabbord (2018) are shown in Table 3. Time spent by workers on fruit and nut farms was 22% in pre-harvest activities compared to an average of 24% of persons working in the berry enterprise found in Table 7. However, significant differences appeared in time allocated for harvesting the crop. Workers on U. S. fruit and nut farms averaged 36% of their time spent in harvest tasks while time allocated to NYS berry harvest ranged from 5% to 76% and averaged 55%. Soft fruits are mostly picked and packed in the field rather sorted and packed in a warehouse. Interestingly, a significant portion of berry sales was derived from U-pick. U-pick did not result in significant decrease in time allocated to harvest. Less time was allocated to sales and marketing by berry enterprises compared to the data summarized by Hernandez and Gabbord (2018). Some farms allocated time for sales and marketing. Marketing and sales functions, especially to retail outlets and restaurants were performed by owners not by employees. Some farms had employees who served as managers but the operator provided most of the management functions.

How much does NYS berry enterprise labor get paid?

Table 8 contains a brief description of the farm labor situation for each scenario. It lists the number of employees, total hours of all employees in 2021, the range of hours worked per week by employees and the range of wage rates paid by the farm to these employees. Only 1 farm had any employees paid the minimum wage of \$12.50. These employees tended to be first year,

entry-level positions. The remaining farms paid higher than minimum wage to be competitive in the local labor market and attract and retain nearby workers. Four farms hired H-2A employees, and of these farms, half paid the AEWR while half paid over the AEWR. Some of the H-2A employees may or may not have had more specialized tasks to perform.

Half of the farms had some, but not all, employees who worked on average 60 hours per week. The other half of the farms tried to keep employee hours at no more than 50 hours per week on average. As one farmer stated, "[We] did not pay any overtime. We allowed the crop to drop to the ground and rot. Paying overtime is NOT economically viable at the \$22.50/hour wage rate."

Table 8. 2021 Berry Season Hours and Wages

Scenario	Number of employees	Total hours in 2021	Range of hours worked per week by workers ¹	Range of wage rates ²
1	5	2,602	part-time-60	\$14.25-\$15.00
2	100	153,388	20-60	\$14.00-\$25.00
3	3	830	50	\$12.50-\$23.00
4	20	11,398	50	\$14.99
5	18	38,240	40-60	\$15.00-\$17.00
6	36	3,757	10-50	\$13.00-\$14.00

¹ Does not include owners' hours.

² Minimum wage in 2021, the year of the study data, was \$12.50.

The minimum wage for Upstate NY agricultural workers announced December 31, 2016 was \$9.70 rising \$0.70 each year through December 31, 2021 to \$13.20. The minimum wage rate announced December 31, 2022 was \$14.20, rising \$1.00 rather than the recent year-over-year increase of \$0.70. Minimum wage rates may reach the mandated \$15.00 threshold as early as December 31, 2023 or likely no later than December 31, 2024.

Table 9. Percent change in New York State AEWR 2014 to 2023

National Average AEWR			New York State AEWR	
Year	Rate	Percent change	Rate	Percent change
2014	\$ 11.10		\$ 11.22	
2015	\$ 11.29	1.7	\$ 11.26	0.4
2016	\$ 11.74	4.0	\$ 11.74	4.3
2017	\$ 12.02	2.4	\$ 12.38	5.5
2018	\$ 12.20	1.5	\$ 12.83	3.6
2019	\$ 12.96	6.2	\$ 13.25	3.3
2020	\$ 13.68	5.6	\$ 14.29	7.8
2021	N/A		\$ 14.99	4.9
2022	N/A		\$ 15.66	4.5
2023	N/A		\$ 16.95	8.2

NYSBGA members generally agreed that AEW is more of a driver of wages paid on farms than state mandated increases in the minimum wage. Changes in overtime thresholds will have significant impact on NYS berry enterprises.

AEW paid to farm workers is higher in NYS than the national average. Table 9 shows historical percent changes in NYS AEW rates. Wage rates have increased each year between 0.4% and 8.2% with an average increase of 4.0%. The nature of the workforce has changed since the pandemic in terms of availability, competitive wages to attract and retain local workers, and the increasing reliance on H-2A workers. The most recent 5-year, year-over-year AEW average is 5.0%.

Berry growers are interested in how changes in wages paid and decreasing overtime thresholds will impact labor costs. Anecdotally, berry growers report labor costs of 50% to 60% of operating costs, similar to other fruit enterprises. Increases in labor costs will significantly impact farm profitability, especially if such costs cannot be passed onto buyers. Table 9 estimates the changes in wages paid by berry farmers through year 2032, when the overtime threshold will decline to 40 hours.

Using the information from the farm interviews, estimations were made to examine the year-over-year increase in wages for each of the scenarios with the following assumptions and calculations.

- Basis for calculations is labor and wage information shared by 6 farms with berry enterprises
- It is assumed that the calculated increases in wages will attract and retain the same labor force performing the same duties and tasks.
- Average hours per worker remain constant in each labor pool across all years
- Calculations are based on average wage rates paid and weighted to each labor pool (standard hourly, specialized hourly, H-2A, managers, contract labor, family paid, owner paid) reported in each scenario. Since we do not have regulated increases in minimum wage after 2025, an average annual 4.8% increase in AEW (from 2014 to 2023) is applied to each pool to calculate the percent year-over-year increase in hourly wage rates for years 2026-2032.
- The minimum wage increase of \$1.00 reported December 31, 2022 is utilized then \$0.40 per year for each of 2 years to reach \$15.00 per hour, December 31, 2024 to be paid in 2025. To calculate an estimate of wages to 2025, the current scenario wage rates were increased using the same rate (%) of increases in minimum wage.
- Overtime threshold currently 60 hours. Phased in, stepped-down approach adopted by the NYS Commissioner of Labor calls for overtime threshold lowered to 56 hours, January 1, 2024; 52 hours, January 1, 2026; 48 hours, January 1, 2028; 44 hours, January 1, 2030; reaching 40 hours January 1, 2032.
- Overtime hours remain constant despite change in overtime threshold to capture some contribution overall increase in wages

Table 9. Estimated of impact of increases in entry-level hourly wages and decreases in overtime thresholds over 10 years, 2022 to 2032.

Year	Entry level hourly wage ¹	OT step-down hours /week	year-over-year % increase in wages						Average
			Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	
2021	\$12.50								
2022	\$13.20	60	4.4	4.3	5.0	5.8	4.6	3.9	4.7
2023	\$14.20	60	8.0	8.0	4.2	8.2	4.4	7.6	6.7
2024	\$14.60	56	5.4	4.2	7.8	4.8	5.6	2.8	5.1
2025	\$15.00	56	4.2	4.1	3.6	4.8	2.3	2.7	3.6
2026	15.72	52	5.5	5.4	3.6	4.8	4.4	3.0	4.5
2027	16.47	52	4.3	4.2	3.8	4.8	3.6	3.0	4.0
2028	17.27	48	5.5	4.8	5.6	6.1	5.0	4.5	5.3
2029	18.09	48	4.3	4.3	3.8	4.8	3.6	3.0	4.0
2030	18.96	44	5.5	8.5	7.4	9.1	5.0	6.0	6.9
2031	19.87	44	4.3	4.3	3.8	4.8	3.6	3.0	4.0
2032	20.83	40	5.5	6.9	7.3	8.9	5.0	5.9	6.6
Average % increases			5.2	5.4	5.1	6.1	4.3	4.1	5.0

¹ This equals the NYS minimum wage increase until 2025 after which an annual calculated increase of 4.8% is applied based on increases in AEWR. Currently, no legislation has been passed to further increase NYS minimum wage after 2025.

Table 9 shows average year-over-year increases in wages for all 6 scenarios that range from 3.6% to 6.9% with an average of 5.0%. In general, the estimated increases from 2022-2025 are highly likely. Most of these increases are due to the increases in minimum wage which we know will increase to \$15.00 by 2025. The estimated increase across all scenarios in 2023 is 6.7%, which is higher than the percentage increase in 2022 largely due to the \$1.00 increase in minimum wage. Estimated increases in 2024 and 2025 are lower because the minimum wage are expected to increase by \$0.40 per year, each year to reach the \$15.00 minimum wage threshold. Unknown is whether regulated minimum wage rates will increase after 2025. Our estimates rely on the assumption that average increases in the marketplace will take place every year. A 4.8% increase is applied across all labor pools beginning in 2026. When the overtime threshold decreases every other year, average rates rise as time and one-half wages paid for overtime hours increases. The 4.8% increase in wages combined with a decrease every other year in the overtime threshold that results in a bump every other year in wage increases.

When examining the average increase for each of the scenarios, Scenario 6 had the lowest average percent increase and Scenario 4 had the highest average percent increase. In both scenarios, wages will increase to attract the needed workers. No H-2A workers were utilized in Scenario 6 and base wages were lower compared to the other scenarios before the annual adjustments were made. Scenario 4 utilizes a variety of local, seasonal, and H-2A workers and H-2A wage rates were reported to be paid across all workers. Such wages were higher overall

than the diversity of wages paid in the remaining scenarios. The remaining scenarios had worker pools, with some workers paid less and others paid more. If a farm had a higher percentage of workers paid lower wages, the percent increase is less and vice versa.

Strategies to Manage Rising Labor Costs

Strategies to reduce labor costs tend to focus on how productivity or efficiency per worker can be improved or through replacing labor with capital in the form of mechanization. Some tasks might be reallocated from higher paid workers to lesser paid workers. Berries might be left unpicked as costs to harvest negates any margin of the crop when sold. As overtime thresholds decline, growers will need to constantly evaluate labor costs, productivity, and time needed to perform various tasks.

NYS berry growers should investigate strategies to improve labor productivity and reduce labor costs adopted by farmers in other growing regions. Some California strawberry growers are utilizing mechanization to assist workers in the field. One example is a system of slow-moving conveyor belts that travel in front of the berry pickers. Workers place the full flats on the belt, rather than spending time carrying flats to the end of the row. Such a conveyor belt can accommodate as few as 5 workers. Workers using a conveyor belt system need to be matched in terms of the speed in which they pick the crop (Goodhue and Martin 2020). Some farmers choose to plant varieties of strawberries with less vegetation and space plants further apart making it easier for workers to see the berries to be picked (Rural Migration Blog 2021).

Historically, labor is replaced by capital in the form of investment in machinery and technology. Blueberries can be harvested mechanically. Mechanical harvesting will include both damaged and immature fruit, less of an issue if the crop is to be used in further processing. Additional labor would be needed to inspect the fruit and place it in clam shells for fruit sold into fresh market channels. One option is to hand-harvest blueberries for fresh market and mechanically harvest for further processing. Further, growers can provide letters of support for researchers developing technology and field-test prototypes of new equipment to supplement or replace human labor.

Size and scale of the enterprise may prohibit the purchase of new machinery or adoption of new technology. Farmers may consider co-ownership and shared use of machinery. Custom harvest businesses might arise from farmers or other individuals willing to invest in the equipment and provide services to others. Regardless of the strategies that might be considered, farm operators need to examine costs and trade-offs between mechanization and labor.

This berry study uses many of these same management questions posed by Wolf, Stup, and Karszes (2021) to compare how other fruit and vegetable operations might respond to changes in increased wages and change in the overtime threshold. Almost all the berry enterprises that served as our farm scenarios were part of a larger and diverse farm operation. Like the fruit and vegetable operations, berry farms in this study utilized a combination of local, full-time, part-time and seasonal U.S. labor along with H-2A workers. We review their results and compare with those from our berry farm scenarios.

Five of the 6 respondents completed the Round 2 survey. All 5 of the respondents indicated they would increase their berry prices (Table 10). Almost all, 4 out of 5, indicated they would change their marketing strategy to include more efforts to increase sales volumes. Four out of 5 also indicated they would:

- eliminate or reduce non-essential crop inputs
- delay capital investments needed for the berry enterprise
- develop strategies to improve employee productivity

Table 10. Berry grower reactions to potential strategies to manage the increase in labor wages

Strategy	% Likely and very likely	% Not likely
Increase prices paid by customers	100	0
Change market strategy (ex. advertising blitz, product promotion)	80	20
Eliminate or reduce non-essential crop inputs	80	20
Delay capital investments needed for the berry enterprise	80	20
Develop strategies to improve employee productivity	80	20
No change, operations, staff size remain the same	60	40
Plant varieties to extend harvest window	60	40
Leave portion of berry crop unharvested	60	40
Eliminate or reduce non-essential production tasks	60	40
Increase investment in automation or mechanization	60	40
Expand berry enterprise	40	60
Shift to higher margin market channel	40	60
Implement season extension practices	40	60
Cancel capital investments needed for the berry enterprise	40	60
Downsize berry enterprise	40	60
Reduce employee benefits to offset costs of wage increase	20	80
Exit berry enterprise	20	80

Although they did not have the overwhelming support as those above, many of the other strategies presented in the survey were selected by respondents. Two that did not receive a lot of support were:

- Reduce employee benefits to offset costs of wage increase
- Exit berry enterprise

A look at the responses for the potential strategies to “downsize berry operations” and “exit berry enterprises” revealed some interesting insights. While 2/5 growers said they were likely or very likely to downsize their berry operation, 3/5 responded, not likely. Of the 2/5, 1 indicated that while they were very likely to downsize, they were not likely to exit the berry enterprise. The other 1 grower indicated that they would exit the berry enterprise. So, for 1 grower downsizing was a possibility but they would not go so far as to exit, and for the other, downsizing with the likelihood of exiting the berry business.

Commentary provided by berry growers regarding increases in hourly wages

- *“When minimum wages rise, all wages have to be adjusted.”*
- *“Due to the nature of the job, current labor shortage, and to retain staff, we paid more than minimum wage. Labor expenses are about 50% of our production costs.”*
- *“[We] are using [H-2A workers]for more tasks on the operation over the past few years.”*
- *“The efficiency oversight provided by the new crew manager is already making a difference. The manager is definitely paying for their salary. And hopefully the hourly wage [increase is] less of an impact.”*
- *“[We] increased prices to cover the increase in production costs last year. We don’t know what will happen this year. Labor expenses are 55% to 60% of our production costs.”*
- *“Overtime pay is paid only to make sure the berries get picked.”*
- *“Raising prices to offset increase in labor costs maintained but did not increase profits.”*
- *“[We] did not pay overtime. [We] allowed the crop to drop on the ground and rot.”*
- *“We purchased a self-propelled, over-the-row, Oxbow harvester.”*

Strategies to Manage Decreasing Overtime Thresholds

Fruit and vegetable farmers in Wolf, Stup, Karszes (2021) were asked questions regarding how they might manage their labor force at a 50-hour and 40-hour threshold. Table 11 shows how fruit and vegetable farm operator strategies may change as the overtime threshold decreases.

Table 11. Fruit and vegetable employer response to 50- and 40-hour overtime threshold

Strategy	Percent respondents (50 hours)	Percent respondents (40 hours)
Hired additional employees to reduce or eliminate overtime hours	50	55
Implemented tighter control of employee performance and hours	35	20
Delay or cancel planned capital investments	30	50
Downsize or exit farm enterprise(s)	25	25
Continue employment as usual, pay overtime as required	25	5
Invest in machinery or equipment to improve labor productivity	25	5
Expand farm enterprise(s)	20	0
Eliminate or reduce non-essential production tasks	15	5
Relocating farm business outside of New York	10	25
Reduce employee benefits to offset overtime cost	10	5
Invest in/remodel current facilities	10	5
Outsource existing tasks to reduce labor needs	5	5
New expansion	5	5
Reduce employee base pay to offset overtime cost	0	5

Source: Wolf, Stup, and Karszes, 2021.

Three strategies appeared to appeal to growers more than others at any level of overtime threshold:

- Hire additional employees to reduce or eliminate overtime hours.
- Implement tighter control of employee performance and hours. This strategy decreased at 40 hours as likely desired performance goals of employees had already been achieved and new strategies needed to be considered.
- Delay or cancel planned capital investments.

Few chose to eliminate benefits, as benefits are likely incentives to attract workers. Some believed at 50 hours they could reduce non-essential production practices but recognized that at 40 hours there were no more non-essential practices to eliminate. Only twenty-five percent of respondents would invest in machinery and equipment to improve labor productivity.

Interestingly, outsourcing to reduce tasks was not deemed a strategy by this group. This is supported by the USDA data that shows a decline in contract labor.

Of additional interest is how farmers view their businesses into the future. Some farmers leaving the fruit and vegetable sector present opportunities for those who remain to expand or new entrants to emerge. At the 50-hour overtime threshold, 25% of respondents saw themselves expanding their operations and 10% saw themselves investing in or remodeling their current facilities. And 5 farms or 25% would downsize or exit the farm enterprise. Of additional concern

is that at the 40-hour threshold is that none of the respondents saw themselves as expanding their businesses.

Informed by management approaches outlined above, our berry growers were asked what strategies they might implement to berry operations under a reduction of the overtime threshold to 50 hours and to 40 hours per week (Table 12). We did not indicate when reductions in the overtime thresholds might occur. Five farm employers had the opportunity to weigh in on each of the strategies proposed in Table 12. Not all farmers weighed in on all strategies. The column “ADDITIONAL farm responses at 40-hrs OT” describes how many of the 40-hour OT were in fact *additional* farm responses at the 40-hour threshold that did not weigh in at the 50-hour level.

Table 12. Strategies to adapt berry farm operations and labor management to potential changes in overtime threshold, to 50 hours and to 40 hours per week

Strategy	to 50-hour OT	At 40-hour OT	ADDITIONAL farm responses at 40-hrs. OT	Total responding at 40 and 50-hrs. OT
Delay or cancel planned capital improvements	60	40	40	100
Downsize berry enterprise	60	20	20	80
Invest in machinery or equipment to improve labor productivity	60	40	20	80
Continue employment as usual and pay for overtime hours as required	60	0	0	60
Implement tighter controls to improve employee productivity	60	20	0	60
Hire additional employees to reduce or eliminate overtime	60	40	0	60
Adjust break times such as lunch to reduce non-working time	40	40	20	60
Utilize custom-service or labor providers	40	40	20	60
Reduce employee benefits to offset cost of overtime	40	20	0	40
Exit berry enterprise	40	0	0	40
Eliminate or reduce non-essential production tasks	20	40	20	60

Strategies to manage the decrease in overtime threshold mirror those used to manage minimum wage increases. Three out of 5 respondents said they would delay or cancel planned capital improvements at the 50-hour per week threshold with the remaining 2 respondents making the same strategy at 40-hours per week (Table 12). The strategy to downsize berry enterprises was considered by more growers when looking to manage overtime threshold labor costs. This was considered by 3/5 growers when looking at a 50-hour threshold and 1 grower at the 40-hour

threshold. Two growers would exit berry production. Investing in machinery or equipment to improve labor productivity would be used by 3 growers when a 50-hour threshold occurred and an additional 1 when 40 hours occurred.

Commentary provided by berry growers regarding change in overtime threshold and overtime pay

- “[We] rarely pay overtime. The 60-hours worked ok, but dropping to 40 hours will be a very different issue. This will be a real problem for H-2A workers. The State discrepancies exacerbate the issue as this farm is only 20 minutes from the [state] border. We will have to charge more [for our berries] to help cover costs of labor.”
- “Most of our workers work more than 40 hours per week, but not over 60 hours. We try to keep hours to no more than 50 hours per week.”
- “The only time when overtime was paid was when the weather didn’t cooperate for spraying. Usually OT never exceeds 8-10 hours for the season.”
- “If 40-hour limit happens, H-2A not work. [H-2A workers] might keep working for 50 hours per week, but not 40.”
- “Drop in 40 hours OT will create a huge challenge. We will have to hire more people and we haven’t got enough now. We need to hire more people at fewer hours. Berry sorting and packing will be impacted. Finding weekend help is an ongoing problem.”
- “During the summer season planting, weeding, irrigation, and picking all have to get done. We work around the weather and the short window of time to get our crops in the ground. It’s easier to pay overtime if the employees are willing to work to get the job completed.”
- “[We] are using [H-2A workers] for more tasks on the operation than in past years.”

Growers see viable strategies to manage overtime hours at the 50-hour threshold. Some would hire additional local or H-2A workers despite concerns that there are few workers available. Growers indicated they would delay or cancel planned capital improvements and downsize the berry enterprise. As overtime threshold decreases to 40 hours by 2032, labor management strategies have already been implemented. Delaying capital improvements can be troublesome as machinery repairs increase and equipment becomes fully depreciated. There is little additional slack in the system to incorporate additional changes at the 40-hour threshold. Some growers will exit the berry enterprise. Decline in the sector could further negatively impact sector service providers and suppliers.

Discussion

New York State Government Action

The Farm Workforce Retention Credit passed by the New York State Legislature allows eligible farm employers to receive a refundable credit for each eligible farm employee. An eligible farmer is a taxpayer whose federal gross income from farming for the tax year is at least two-thirds of excess federal gross income. Excess federal gross income is the amount of federal gross income from all sources (including payment from the Agricultural and Farmland Protection Program administered by NYS Department of Agriculture and Markets). An eligible farm employee is an individual (including H-2A workers) who is employed for 500 hours or more per taxable year. For taxpayers beginning on or after January 1, 2021 and before January 1, 2022, the tax credit per eligible farm employee is \$600. Looking forward, for tax years beginning on or after January 1, 2022 and before January 1, 2026, the credit per eligible employee is \$1,200. (NYS Department of Taxation and Finance Farm Workforce Retention Credit)

Eligible farm employers will also be entitled to apply for and receive the Farm Employer Overtime Tax Credit for eligible farm employees (New York Tax Law. 2022 NY Law Chapter 664, Section 42-A Farm Employer Overtime Credit). Eligible overtime hours include those hours in any calendar week that exceed the overtime threshold set forth by the NYS Commissioner of Labor, up to 60 hours per week. Overtime hours, above 60 hours will not be reimbursed to the employer. Only the overtime premiums are reimbursable through this tax credit. In an example taken from the Cornell Agricultural Workforce Program, if an employee whose regular pay is \$18 per hour works for 58 hours in one calendar week and if the overtime threshold is 56 hours, the worker is eligible for 2 hours of overtime pay. Overtime pay is 150% (time and a half) of regular pay, so the employee's overtime pay for each hour of overtime is \$27 for each overtime hour worked. The extra \$9.00 (overtime premium) is eligible for reimbursement through the Farm Employer Overtime Tax Credit. As pay goes up, marginal costs, i.e., workers compensation insurance, unemployment insurance, etc., also increases. As a result, the tax credit will allow employers to take 118% of the eligible overtime compensation to cover the additional costs. Advance payments of tax credits for overtime premiums paid between January 1 and July 31 are possible. The NYS Department of Agriculture and Markets will be the portal to initiate the reimbursement process.

Implications for Consumers

The cost of food in the U.S. is one of the lowest in the world when measured as a percent of disposable income. The consumer price index (CPI) for food from 2011-2021 was 2.2%. Yet low food prices have been at the expense of farm prices and farm wages. The producer price index (PPI) for farm food products in the same period, 2011-2021, was 0.6%. The reason farmers have existed under such a low PPI has been the improvements in productivity that have more than offset the increases in costs.

The estimated increases in wages per year are approximately double the CPI for food in the last decade, and labor expenses represent around 50% of the cost of production on berry farms. Solutions to this very real issue will have to be found.

Policy leaders interested in affordable food for everyone, need to understand the limitations of farm production and establish policies that can support the production of healthy foods, such as fruits and vegetables, while providing the same healthy food to those who need it.

Conclusions

The NYS berry sector is impacted by the global economy in terms of labor and markets. Farmers will increase prices to customers to offset increased cost of labor but question if this is a long-term strategy. The challenge is for NY growers to compete during their growing season with producers with lower costs located in other states and other countries. Historically, growers received price premiums for fruit harvested at the beginning and end of the season. New varieties grown in other areas and sold in NYS compete in the marketplace with locally sourced berries throughout the season.

Several strategies have traction with growers. Many would eliminate or lower purchase of non-essential crop inputs and reduce non-essential production tasks of workers. Such strategies have merit, but labor costs remain high, representing more than 50% of production costs. Another strategy calls for delaying capital investments in the berry enterprise on the one hand but investing in technology and equipment that enhances employee productivity. Others suggest operations will remain mostly unchanged.

Strategies to adopt the stepped-down approach to overtime thresholds are similar to those of increased labor costs. Some farms will hire additional workers in spite of changes in the labor force. There are fewer unauthorized workers available to work on farms as persons crossing the border may choose to work in sectors other than agriculture. Other unauthorized workers who have been in the U.S. for several decades are older and choose to no longer work in the fields.

H-2A workers are a solution for farmers with capacity to pay AEWR rates. Foreign born labor may choose to not become H-2A workers and remain in their own countries as they achieve higher wages and education levels. Growers see opportunities to implement these strategies presently and through 2026-27 when the overtime threshold decreases to 52 hours. In the years following, there is less traction to any of the proposed strategies as they will have already been implemented.

Growers need to consider how the berry enterprise adds value and contributes to the goals of the business, analyze labor needs, worker availability, compensation, and other costs to determine how best to manage expenses, preserve profits, and improve business viability.

Literature

- Calvin L. and P. Martin. 2010. [The U.S. produce industry and labor, facing the future in a global economy](#). ERR-106.U.S. Department of Labor, Economic Research Service. Washington, D.C. November
- Charlton, D., J.E. Taylor, S. Vougioukas, and Z. Rutledge. 2019. [Can wages rise quickly enough to keep workers in the fields?](#) *Choices*. 34(2) Agricultural & Applied Economics Association.
- Cosgrove, T. and C. Laughton. 2021. [The Economic Impact of Overtime Pay for New York State Agriculture](#). Knowledge Exchange Report. Farm Credit East, Enfield, CT. October.
- Goodhue, R. and P. Martin. (2020) California Agriculture: Dimensions and Issues. 2nd ed. [Chapter 11. California Berries](#). University of California, Davis. Giannini Foundation Information Series 20-21.
- Hernandez, T. and S. Gabbord. 2018. [Findings of the National Agricultural Workers Survey \(NAW\) 2015-2016: A Demographic and Employment Profile of United States Farmer Worker](#). JBS International. Research Report No. 13.
- New York State Department of Labor. 2020. [A Farmer's Guide to the New York State Department of Labor](#). P130. Albany, NY. January.
- New York State Department of Labor. History of Minimum Wage in New York State. Accessed at: <https://dol.ny.gov/history-minimum-wage-new-york-state>.
- New York State Department of Taxation and Finance. Farm Workforce Retention Credit. Technical Memorandum TSB-M-16(7)C, (5)I Corporation Tax Income Tax. Accessed at: https://www.tax.ny.gov/pdf/memos/multitax/m16_7c_5i.pdf
- New York Tax Law. 2022 NY Law Chapter 664, Section 42-A Farm Employer Overtime Credit. Added by New York Laws 2022, ch.59, Sec. B-C-2, eff. 4/9/2022. Accessed at: <https://casetext.com/statute/consolidated-laws-of-new-york/chapter-tax/article-1-short-title-definitions-miscellaneous/section-42-a-farm-employer-overtime-credit>
- New York State Farm Laborers Wage Board. 2022. Resolutions Adopted by the Farm Laborers Wage Board on 1/28/2022. Retrieved at: <https://dol.ny.gov/farm-laborers-wage-board-hearings>
- Rural Migration Blog* (2021). "Strawberries: Growth and Labor". University of California-Davis. November 19, 2021. <https://migration.ucdavis.edu/rmn/blog/post/?id=2668>
- Stup, R. (2019). 2017 Farm Employee Compensation Benchmark Report, a Cornell Cooperative Extension publication. Retrieved from <http://agworkforce.cals.cornell.edu/research-reports/>.
- U.S. Bureau of Labor Statistics, May 2021, State Occupational Employment and Wage Estimates for New York. (Available online at: https://www.bls.gov/oes/current/oes_ny.htm#31-0000.)
- United States Department of Agriculture (USDA). 2022. *2020-2021 Agricultural Statistics Annual Bulletin New York*. National Agricultural Statistics Service. Accessed at: https://www.nass.usda.gov/Statistics_by_State/New_York/Publications/Annual_Statistical_Bulletin/2021/2020-2021_NY_Annual_Bulletin.pdf

United States Department of Agriculture (USDA). 2017a. *Census of Agriculture*. National Agricultural Statistics Service. Accessed at: https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_US_State_Level/

United States Department of Agriculture (USDA). 2017b. *Census of Agriculture, New York State*. National Agricultural Statistics Service. Accessed at: https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_1_State_Level/New_York/st36_1_0041_0041.pdf

USDA, Economic Research Service. Farm Labor topic website: <https://www.ers.usda.gov/topics/farm-economy/farm-labor#links> accessed 8-31-2022.

United States Department of Labor. 2019. AEW Trends. Accessed at: https://www.dol.gov/sites/dolgov/files/ETA/oflc/pdfs/2c.%20AEWR%20Trends%20in%20PDF_12.16.19.pdf

National Agricultural Workers Survey, Summary Reports, Data Tables and Presentations, Data Tables, <https://www.dol.gov/agencies/eta/national-agricultural-workers-survey/research/data-tables>. accessed 8-29-2022.

Wells, M. and J. Ifft. 2017. The impact of New York's minimum wage rules and overtime on New York apple growers. *Fruit Quarterly*, 25(2), 30-32.

Wolf, C., R. Stup, and J. Karszes. 2021. [Effects of NY Overtime Laws on Agricultural Production Costs and Competitiveness](#). E.B. 2021-06. Cornell University, Charles H. Dyson School of Applied Economics and Management and College of Agriculture and Life Sciences. November.

Zahniser, S., J. E. Taylor, T. Hertz, and D. Charlton. 2018. [Farm labor markets in the United States and Mexico pose challenges for U.S. agriculture](#). EIB-201. U.S. Department of Agriculture, Economic Research Service, November.

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