

The Impact of New York’s Minimum Wage Rules and Overtime on New York Apple Growers

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This research was supported by the New York Apple Research and Development Program

Labor is the number one cost in apple producing businesses, accounting for 40–50% of farm operating expenses. Apple production is labor-intensive, due to many tasks requiring hand labor like harvest, pruning, hand thinning and tree training. While labor-reducing robotics in orchards are a realistic possibility in the future, it will be several years before they are available commercially and affordable to most growers.

“This project estimated the impact of the new minimum wage schedule and potential loss of the overtime exemption on individual growers.”

Farm labor availability in New York has become a serious problem for growers due to demographics, declining unemployment, and immigration policies. With a shortage of farm workers, the industry has increased its usage of the federal H2A program. This alone has increased the average wages on farms, as farmers must pay what is called the adverse wage effect. This is a wage that is set by the federal government to protect domestic wages and has been 29–50% higher than states’ minimum wage levels over the past 10 years.

In 2015, the New York State legislature instituted a minimum wage schedule beginning in 2016 (Table 1). This wage schedule is well below the average wages paid to domestic and H2A apple production workers, but the government mandated increases will likely “push” all farm worker wages higher. New York apple producers also are concerned that NYS will remove the agricultural exemption for mandatory overtime. Over the

Table 1. Minimum Wage Upstate NY.

Year in Effect	Min Wage	% Change
2016	\$9.00	
2017	\$9.70	7.8%
2018	\$10.40	7.2%
2019	\$11.10	6.7%
2020	\$11.80	6.3%
2021	\$12.50	5.9%

last decade, there has been overtime legislation proposed, but it either did not reach the floor or was voted down.

This project estimated the impact of the new minimum wage schedule and potential loss of the overtime exemption on individual growers.

Methods

Cornell University and the Cornell Cooperative Extension Lake Ontario Fruit Team have conducted an annual financial benchmark study on fruit farms in western NY for many years.

This study is commonly known as the Fruit Farm Business Summary. In 2015, there were 14 farm participants that shared their financial performance and business data. To conduct a wage analysis for this project, four of these farms volunteered their payroll data of hourly employees from the 2015 season (salaried employee data was not included). We estimate the impact of minimum wage increases and a change to overtime rules on farm labor costs, and assume no changes to hours worked or other labor management practices. Table 2 gives an overview of each of the four farms’ number of hourly employees, average wage and annual operating expenses.

Minimum Wage Impact

For each farm, the average wage was determined by dividing the total wages by total hours. The average wage for future years was extrapolated by assuming wages increase at the same rates that the new minimum wage schedule increases. This is a fair assumption, as the H2A adverse wage will increase as minimum wage increases. For farms not using H2A, they must pay a competitive wage to attract workers, and historically wages have increased with minimum wage increases. Table 3 shows the estimated wages through 2021. These wages include employer taxes, unemployment and worker’s compensation insurance, as they are a percentage of gross wages. The wage rate increase would amount to a 43% increase over 6 years, or an average 7%

Table 2. Farm Overview - 2015.

	Farm A	Farm B	Farm C	Farm D
Number of Hourly Employees	47	77	46	62
Total Hours Worked by Hourly Employees	34,006	77,008	15,032	74,693
Average Hours Per Employee	724	1,000	327	1,205
Average Wage	\$12.02	\$12.61	\$13.22	\$11.89
Gross Wages (employer taxes not included)	\$408,678	\$970,868	\$198,733	\$887,872
Total Farm Operating Expenses	\$1,246,798	\$3,126,000	\$ 610,090	\$ 2,378,176
Hourly Wages as % of Total Operating Expenses	33%	31%	33%	37%

Table 3. Average Hourly Wage Forecast by Farm (includes employer hiring taxes).

Year	Farm A	Farm B	Farm C	Farm D
2015	\$ 13.28	\$ 13.52	\$ 14.97	\$ 12.73
2016	\$ 13.66	\$ 13.90	\$ 15.39	\$ 13.10
2017	\$ 14.72	\$ 14.99	\$ 16.59	\$ 14.12
2018	\$ 15.79	\$ 16.07	\$ 17.79	\$ 15.14
2019	\$ 16.85	\$ 17.15	\$ 18.98	\$ 16.15
2020	\$ 17.91	\$ 18.23	\$ 20.18	\$ 17.17
2021	\$ 18.97	\$ 19.31	\$ 21.38	\$ 18.19

Table 4. Percent Increase to Hourly Wages with Different OT Scenarios: 2015 Season.

Scenario	Farm A	Farm B	Farm C	Farm D
Incremental OT 40	8.3%	12.9%	6.5%	18.7%
Incremental OT 8 Daily	5.3%	8.4%	4.1%	8.0%
Incremental OT 50	2.6%	6.4%	1.8%	9.8%
Incremental OT 60	0.3%	2.2%	0.5%	3.6%

per annum. While other operating expenses would likely increase over this time period, they are not likely to change as dramatically. It is anticipated that wages as a percent of total expenses will increase to historic high levels.

Overtime Impact

The current overtime (OT) rules in New York for non-exempt industries is any hours over 40 in a seven-day week must be paid at time and a half (OT40). In this analysis, other overtime scenarios were considered. They were OT for hours over 50 (OT50) and 60 (OT60) per week, and hours over 8 in a day (OT8). From the 2015 wage data provided by the four farms, it could be determined what the overtime would have been in the four different OT scenarios. The results varied by farm depending on the use of labor. Table 4 illustrates the percent increase in labor costs for each of the farms in the four scenarios. OT40 contributed to the largest increase in costs, and OT8 was the second largest contributor. This would indicate that workers are not working more than 1–2 hours over 8 in a given day, but work 6 full days per week. OT60 would have had the smallest financial impact on all four farms.

Minimum Wage Schedule Combined with OT 40

Assuming the OT exemption is eliminated and goes into effect in 2018, the combination of the minimum wage schedule and OT40 were determined for each of the farms' average hourly pay rates. Table 5 lists the rates for each farm through 2021. The minimum wage on its own increased rates by 43%, or 7% per year. With OT40 beginning in 2018, the total rate increase would range from 52–70%, depending on the farm. The impact to production cost per bearing acre are significant, as can be seen in Figure 1.

Minimum Wage and Overtime in other Apple Producing States

New York apple growers compete in the marketplace with other apple-producing states. The top 7 apple producing states

Table 5. Average Wage with Employer Taxes and OT40 Starting in 2018.

Year	Farm A	Farm B	Farm C	Farm D
2015	\$13.28	\$13.52	\$14.97	\$12.73
2016	\$13.66	\$13.90	\$15.39	\$13.10
2017	\$14.72	\$14.99	\$16.59	\$14.12
2018	\$17.10	\$18.14	\$18.94	\$17.96
2019	\$18.25	\$19.37	\$20.21	\$19.17
2020	\$19.40	\$20.59	\$21.49	\$20.38
2021	\$20.55	\$21.81	\$22.76	\$21.59

are listed in Figure 2 with their respective and current minimum wages. Also shown are the projected wages in 2021 based on states' future indications for minimum wages (2021 is a forecast based on states published indications. It is possible for a state to change their minimum wage law prior to 2021). Michigan, Pennsylvania and other mid-Atlantic states will likely have lower labor rates based on their lower minimum wages. However, in a tight labor market, the wage discrepancies may make NY farms more attractive to transient farm labor workers. Of the 7 states, California is the only apple-producing state with OT rules. Prior to 2017, California's OT rules required OT after 10 hours per day and 60 hours per week. In late 2016, the *Phase-In Overtime Agricultural Workers Act of 2016* established a phase-in schedule through 2022 to require OT for hours over 8 per day, hours over 40 per week and double time for hours over 12 per day.

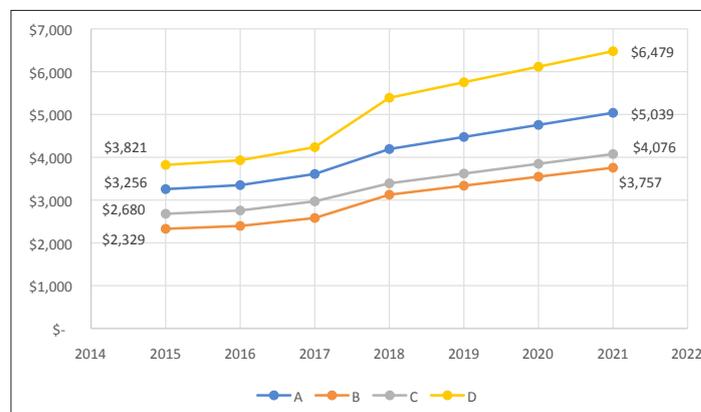


Figure 1. Projected hourly labor cost per bearing acre: Minimum Wage Schedule and OT 40, starting in 2018

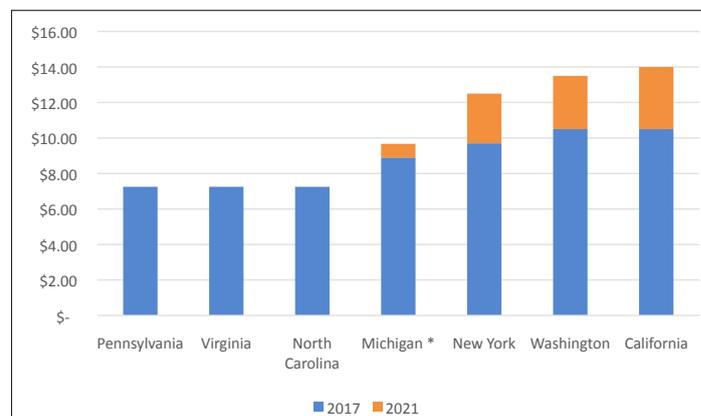


Figure 2. Apple-producing states' minimum wages: 2017 and 2021

Discussion

To mitigate the increased labor cost that will result from the minimum wage schedule, farms will need to continue adopting labor saving mechanization. The best example for modern high density orchards would be the use of platforms to increase the productivity of manual tasks like pruning, hand thinning, tree training and harvest (Wells et al. 2017). Relatively modest wage increases could lead to harvest platform adoption having positive returns for most New York apple farms (Ifft et al., in press). Other examples would include multi-row spray rigs and pruning hedgers. Robotic harvesting and pruning machines are rapidly approaching commercialization. Widespread adoption is likely several years away, but farms must begin to design orchards now to accommodate robotic tasks in the future.

In the event that OT is mandated on agriculture, farms will need to “manage” hours of each employee to minimize time and a half pay rates. In the manufacturing sector, businesses minimize OT by use of multiple shifts. This would be difficult to do on fruit farms, as many tasks require daylight. Other options include hiring more labor such that hours can be kept at 40 hours per week per employee. This may not be possible due to an already tight agriculture labor market. Adding more employees may also require the need for additional housing.

Conclusion

The financial impact to apple farms by the minimum wage schedule will be significant on its own, with an expected 7% increase in hourly labor wages per year through 2021. This, coupled with the potential loss of the agricultural overtime exemption, will put many farms in a perilous financial position. A \$1,400–\$2,600 per bearing acre in cash operating cost would likely put many farms in an unprofitable position. Conservatively, the increased costs of labor statewide would exceed \$60 million per year by 2021 in an industry with an average farm gate value of \$250 million. When costs increase substantially in any industry, management takes action to mitigate the impact. A critical challenge for New York fruit farms

over the next decade will be making the management changes and investments necessary to increase resilience to increasing labor costs.

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Acknowledgements

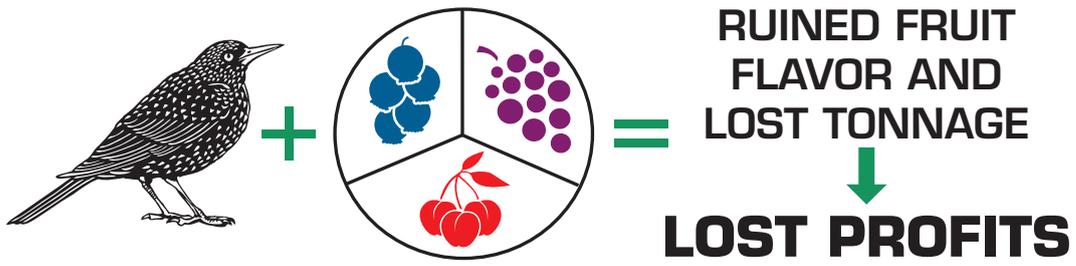
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