April 2022 EB 2022-09

2020 Farm Employee Compensation Benchmark Report

Richard Stup and Lucas Smith,
Cornell Agricultural Workforce Development
and
Jason Karszes, Cornell PRO-DAIRY

Charles H. Dyson School of Applied Economics and Management SC Johnson College of Business College of Agriculture and Life Sciences Cornell University, Ithaca, NY 14853-7801

It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs, which will assure the continuation of such equality of opportunity.

2020 Farm Employee Compensation Benchmark

Highlights

- Frontline employee regular wages at \$16.29 per hour and \$20.29 in total compensation per hour
- Employee bonus or incentive pay was high in 2020
- Middle manager total compensation at \$65,041
- Overtime hours worked averaged 137 for frontline employees and 119 for middle managers

Introduction

The year 2020 contained plenty of change and challenges regarding farm labor. Farm employers all over the country were confronted with COVID-19, piled on top of already tight labor markets and rising wages. New York state producers experienced another scheduled increase to the minimum wage, and the beginning of new farm labor regulations imposed by the Farm Laborer Fair Labor Practices Act (FLFLPA) of 2019.

Methods and Response

The 2020 Farm Employee Compensation Benchmark was designed to capture a detailed image of how farm employees were compensated in 2020, including wages, bonuses, incentives, and benefits. An online survey was distributed widely in New York and neighboring states using email lists, websites and industry newsletters across agricultural commodities. The survey was open from February 16, 2021 to April 30, 2021. Farm businesses were encouraged to provide information about more than one employee, if they had employees in positions such as frontline, middle manager or senior manager.

We received 273 total responses to the survey. Because this was an open, online survey there were a number of unusable responses: 36 incomplete surveys, 8 extreme outliers, and 11 spurious responses entered by people who just wanted to view the survey questions. After cleaning up the data, we were left with 218 total usable responses about employees from businesses in 10 states: New York (172), Pennsylvania (31), Wisconsin (7), Idaho (2), and one response each from Illinois, Massachusetts, Minnesota, Ohio, Texas, and Vermont.

Responses came from 94 unique farm businesses, the most contributed by any one farm was 20 and the minimum was 1, with an average of 2.3 employees contributed per farm. One farm contributed 20 employees, or about 9% of the observations so we wanted to be sure that this one farm did not influence the data strongly in any particular direction. This farm contributed only permanent, full-time employees so we compared this farm's employees to the same type of employees from all other farms to see if there were any significant differences in regular hours worked, hourly pay, or total value of benefits.

Results of the analysis indicated no significant differences between the farm that contributed 20 employees and all other farms on the test variables so we included all of the employees in the data.

Results

We will begin with an overview of all 218 employees in the database. The employees worked in a variety of farm types as shown in Table 1, with dairy farm employees representing slightly more than half, followed by employees of fruit and vegetable farms.

Table 1. Type of Farm (n = 218)

	Frequency	Percent
Dairy	110	50.5
Fruit	43	19.7
Vegetable	26	11.9
Eggs	11	5.0
Grain crops	11	5.0
Greenhouse, nursery or ornamentals	7	3.2
Grape vineyard	4	1.8
Agritourism	3	1.4
Beef, sheep, goats, other livestock, etc.	1	0.5
Custom farming operations	1	0.5
Poultry for meat	1	0.5

Most employees (202) were not a member of the business owner's family. Ninety of the employees, less than half, were born outside of the United States. English was the native language of most employees (129), followed by Spanish (83), Indigenous language of Central America (4), and Creole or other Caribbean language (2). Only 11 of the employees were participants in the federal H–2A guest worker program. The largest group of employees were high school graduates, followed by those who received less education than high school (Table 2).

Table 2. Education level (n = 218)

	Frequency	Percent
Less than high school	63	28.9
High school graduate	78	35.8
Technical degree	6	2.8
2 year degree	14	6.4
4 year degree	28	12.8
Advanced college degree	2	0.9
Unknown	27	12.4

The type of position that an employee holds has a strong effect on total working hours and compensation earned. We categorized positions by whether they were permanent year-round or seasonal, and whether they were full-time (40 or more hours per week) or part-time (less than 40 hours per week). Most employees were in permanent, full-time positions as shown in Table 3.

Table 3. Type of position (n = 218)

	Frequency	Percent
Permanent year-round, full-time (40 or more hours per week)	188	86.2
Permanent year-round, part-time (less than 40 hours per week)	8	3.7
Seasonal or temporary (works less than 150 days per year), full-time (40 or more hours per week)	19	8.7
Seasonal or temporary (works less than 150 days per year), part-time (less than 40 hours per week)	3	1.4

We asked respondents to indicate the position level that best described the employees they entered: 141 were "frontline employees," 60 were "middle managers," and 17 were "senior managers." We also asked if the employees were responsible for supervising the work of at least one other person, 138 were not supervisors and 80 were supervisors. Table 4 is a cross-tabulation to show the relationships between position level and supervisory responsibility, most middle managers and almost all senior managers were supervising other employees.

Table 4. Crosstabulation of "position level" and "supervises others"

Supervises others

		No	Yes	Total
Position level	Frontline Employee	121	20	141
	Middle Manager	15	45	60
	Senior Manager or Owner	2	15	17
	To	otal 138	80	218

Compensation Summaries by Position Level

Most of the employee compensation responses in this benchmark were for full-time employees in permanent, year-round positions as shown in Table 3. Employees in these types of positions have alternative employment options so it is no surprise that employers are interested in compensation strategies for them.

Frontline Employees

Table 5 presents a summary of the compensation for permanent, full-time employees that were described as "frontline" employees. This group includes employees who are mainly engaged in hands-on production tasks rather than supervisory or management tasks. They represent the majority of the workforce in farms and the majority of the responses in this dataset.

The average employee had significant tenure with their current employer (7.7 years), and about 12.6 years of overall work experience.

Total hours worked in 2020 for frontline employees ranged from a low of 1,037 to an extraordinarily high 4,630, with a mean of 2,706. The minimum of 1,037 seemed low since an employee working 40 hours per week for 50 weeks would accumulate 2,000 hours, this is likely due to employees who worked only part of 2020. We excluded those employees with total hours worked of less than 2,000 from the data and found that, of the remaining 97 employees, they worked an average of 2,879 regular hours in 2020. Dividing 2,879 total hours over 50 weeks in the year suggests that frontline employees worked on average about 58 hours per week.

For most hired, New York farm employees overtime was available after working 60 hours in a week or if working on their designated day of rest. Table 5 presents overtime hours for all full-time, frontline employees but we further analyzed those from New York only because most other states do not require overtime for farm employees. Eighty-eight New York frontline employees had the same range as shown in the table and a slightly higher mean of 175 overtime hours worked in the year.

We arrive at total compensation by adding the total paid wages, bonus or incentive pay, and the reported value of all other benefits. Mean total compensation for frontline

employees was \$54,324. Regular wages per hour, not including overtime, was \$16.29, and the total compensation per hour was \$20.24.

When possible, it is helpful to compare data with other sources. USDA National Agricultural Statistics Service (NASS) conducts a semi-annual survey of farm wages by certain dates and regions of the country. The most comparable number prepared by USDA to this benchmark is the base wage for field and livestock combined in Northeast I (New York and the New England states). USDA reports¹ this wage at \$15.10 for October 11-17, 2020, somewhat lower than our comparable regular wage per hour for frontline farm employees of \$16.29.

Table 5. Compensation summary for permanent, full-time, frontline employees (n = 114)

Table 6. Compensation sur	Mean	Median	Minimum	Maximum	Range
Tenure with current employer (years)	7.7	5.0	0.5	33.0	32.5
Overall work experience (years)	12.6	8.0	1.0	46.0	45.0
Regular hours	2569	2591	1037	3981	2944
Regular wages	\$41,298	\$40,504	\$15,646	\$67,715	\$52,069
Overtime hours	137	24	0	1130	1130
Overtime wages	\$3,138	\$519	\$0	\$20,428	\$20,428
Total hours worked	2706	2635	1037	4630	3593
Total paid wages	\$44,436	\$45,113	\$15,646	\$81,492	\$65,846
Bonus or Incentive	\$2,431	\$675	\$0	\$45,803	\$45,803
Total value of benefits	\$7,283	\$5,441	\$0	\$56,000	\$56,000
Total compensation	\$54,324	\$53,407	\$15,746	\$114,691	\$98,945
Regular wages per hour	\$16.29	\$15.54	\$9.80	\$27.01	\$17.21
Total compensation per hour	\$20.24	\$19.08	\$10.12	\$37.60	\$27.48

Benefits are an important and valuable part of an overall compensation package. For frontline employees in our study, the total value of benefits represented about 13% of their total compensation package. Table 6 presents the specific types of job-related benefits that were included in employee compensation. Most frontline employees (85%) received paid time off or vacation, and about half received disability insurance, farm produce, and clothing. A little below half of the frontline employees in this study received housing as part of their compensation. Health insurance was low with only 32% receiving it.

Table 6. Benefits received by permanent, full-time, frontline employees (n = 110)

Benefits	Frequency	Percent
Paid Time Off (PTO) or Vacation	93	85%
Disability insurance	56	51%
Farm produce (milk, meat, vegetables, etc.)	55	50%
Clothing	52	47%
Housing	46	42%
Paid sick days	45	41%
Retirement	40	36%
Paid family leave	39	35%
Utilities	36	33%
Health insurance	35	32%
Recreational use of farm property	25	23%
Other*	24	22%
Continuing education or off-farm training	20	18%
Meals	17	15%
Transportation to work or other places	16	15%
Life insurance	11	10%
Personal use of vehicle	5	5%
Farm commodities	4	4%

^{*} Examples: paid holidays, fuel, TV, internet

Bonus or incentive pay in 2020 ranged greatly in value for frontline employees, from \$0 to \$45,803; on average it represented \$2,431 or about 4% of total compensation. The average, however, was greatly influenced by a small number of very large bonuses. Sixty employees received bonus pay of \$700 or less, with 24 of those receiving none. Another large group of 50 employees received bonus pay between \$750 and \$8,500. The year 2020, with the COVID pandemic and emergency government financial programs such as the Paycheck Protection Program (PPP), likely had an unusual impact on employee bonus pay. In many cases, employers passed along PPP funds to employees in the form of bonus pay.

Based on this data, we can estimate a typical compensation package for a permanent, full-time, frontline employee in 2020. Based on a regular wage per hour of \$16.29, and typical work week of 58 hours, and assuming 50 weeks worked, we arrive at regular annual wages of \$47,241. Adding an average benefit package of \$7,283 and a conservative bonus or incentive of \$700, we arrive at total compensation of \$55,224.

Middle Managers

Middle managers are critical in many farms as they carry out production tasks, make daily operational decisions, and supervise frontline employees. Middle managers had a diverse range of backgrounds: out of 58 middle managers in the dataset, 18 (31%) were born outside the U.S., 19 (33%) had a native language other than English (mostly Spanish), and only 7 (12%) were members of the farm owner's family. Educational backgrounds also varied as shown in Table 7, ranging from those with less than high school to those with advanced college degrees.

Table 7. Middle manager education

	Frequency	Percent
Less than high school	12	21
High school graduate	21	36
Technical degree	2	3
2-year degree	5	9
4-year degree	12	21
Advanced college degree	2	3
Unknown	4	7
Total	58	100

Table 8 presents the compensation summary for middle managers. They were experienced, averaging over 11 years with their current employer and almost 17 years of overall experience. They worked 2,658 total hours on average in 2020 with only 119 of these being overtime; although many New York middle managers, especially those who supervise others, may not be eligible for overtime. Among the 43 middle managers in this data who

supervised other employees, the average number supervised was 10 with a range from 0 to 60.

Table 8. Compensation summary for permanent, full-time, middle managers (n = 58)

Table 6. compensation sur	Mean	Median	Minimum	Maximum	Range
Tenure with current employer (years)	11.4	10.0	1.0	37.0	36.0
Overall work experience (years)	16.9	15.0	2.0	40.0	38.0
Regular hours	2539	2550	1365	3975	2610
Regular wages	\$48,995	\$46,017	\$28,000	\$80,000	\$52,000
Overtime hours	119	0	0	937	937
Overtime wages	\$3,114	\$0	\$0	\$31,656	\$31,656
Total hours worked	2658	2611	1416	4207	2791
Total paid wages	\$52,109	\$50,038	\$28,000	\$106,767	\$78,767
Bonus or Incentive	\$2,857	\$1,200	\$0	\$25,222	\$25,222
Total value of benefits	\$10,519	\$9,757	\$456	\$34,200	\$33,744
Total compensation	\$65,041	\$64,794	\$29,850	\$123,184	\$93,334
Regular wages per hour	\$19.59	\$17.87	\$11.71	\$35.58	\$23.86
Total compensation per hour	\$25.12	\$22.75	\$14.81	\$60.78	\$45.97

Table 9 presents the employment benefits received by permanent, full-time middle managers in our project. Paid time off for vacation and sick time were widely available. About half of the middle managers received health insurance and a little less than half received retirement benefits. Provided housing was about 37%.

Table 9. Benefits received by permanent, full-time, middle managers (n = 57)

Benefits	Frequency	Percent
Paid Time Off (PTO) or Vacation	49	86%
Disability insurance	34	60%
Paid sick days	32	56%
Health insurance	28	49%
Paid family leave	27	47%
Farm produce (milk, meat, vegetables, etc.)	26	46%
Retirement	26	46%
Clothing	24	42%
Housing	21	37%
Continuing education or off-farm training	16	28%
Recreational use of farm property	15	26%
Utilities	14	25%
Other*	12	21%
Personal use of vehicle	12	21%
Life insurance	8	14%
Meals	7	12%
Transportation to work or other places	7	12%
Farm commodities	5	9%

^{*} Examples: paid holidays, fuel, cell phone

Bonus or incentive pay for middle managers was not as influenced by a few large payments as discussed earlier for frontline employees. Forty-two out of the 58 middle managers received bonus pay between \$275 and \$8,000, averaging \$2,556, similar to the mean bonus or incentive shown in Table 9. Bonus or incentive pay was about 4% of total compensation for middle managers.

Middle managers earned average paid wages of \$52,109 in 2020, bonuses and incentives of \$2,857, and other benefits of \$10,519, as reported in Table 9. These three items combined

for a total compensation package of \$65,041 on average. On a per hour basis, regular wages were at \$19.59 and total compensation per hour averaged \$25.12.

USDA-NASS reported¹ base wages for "first-line supervisors" in Northeast I (New York and New England) at \$23.05 for 2020. This is considerably higher (\$3.46) than our comparable regular wage rate for middle managers of \$19.59.

Senior Managers

We had just enough senior managers in the dataset to cautiously share some average results. Senior managers were highly experienced and held a great deal of responsibility. Sometimes senior managers were also owners of the farm business, as owners they were often compensated in more ways than just through pay and benefits. For this reason, we excluded any owners from our analysis of senior managers, leaving us with only 12 in the dataset.

Table 10 shares information about these 12 senior managers, but less detail than the tables reporting about other employees in order to ensure participant privacy. Senior managers had almost 15 years of tenure with their current employer and nearly 19 years of overall experience. At 2,750 total hours worked, senior managers put in more hours on average than either frontline or middle managers. They also earned a substantially higher average compensation than the other two groups at almost \$90,000.

Table 10. Compensation summary for permanent, full-time, senior managers who were not owners (n = 12)

	Mean	Median	Min to Max Range
Tenure with current employer (years)	14.7	12.3	33.0
Overall work experience (years)	18.8	16.0	30.0
Regular hours	2594	2666	1011
Regular wages	\$66,314	\$64,805	\$79,350
Overtime hours	156	21	900
Overtime wages	\$4,718	\$580	\$19,440
Total hours worked	2750	2850	1370
Total paid wages	\$71,032	\$68,683	\$78,890
Bonus or Incentive	\$6,121	\$1,594	\$21,428
Total value of benefits	\$12,829	\$10,029	\$34,975
Total compensation	\$89,983	\$86,840	\$100,271
Regular wages per hour	\$25.86	\$23.66	\$28.82
Total compensation per hour	\$33.47	\$29.79	\$36.60

The value of bonus or incentive pay was about 7% of total compensation, this is a higher percentage than for frontline (4%) or middle manager (4%) employees. The value of benefits for senior managers represented about 14% of their compensation package, this was a bit more than frontline employees and similar to middle managers. Table 11 shows that all senior managers received paid time off, and two thirds got health insurance and retirement benefits. A third of senior managers in this study received a housing benefit.

Table 11. Benefits received by permanent, full-time, senior managers who were not owners (n = 12)

Benefits	Frequency	Percent
Paid Time Off (PTO) or Vacation	12	100%
Health insurance	8	67%
Retirement	8	67%
Disability insurance	7	58%
Personal use of vehicle	7	58%
Farm produce (milk, meat, vegetables, etc.)	6	50%
Clothing	5	42%
Housing	4	33%
Recreational use of farm property	4	33%
Paid family leave	3	25%
Paid sick days	3	25%
Continuing education or off-farm training	2	17%
Life insurance	2	17%
Meals	2	17%
Utilities	2	17%
Other*	1	8%

^{*} gas

Caution should be used when interpreting averages from small datasets such as this group of hired senior managers. Note that total compensation in Table 10 averages almost \$90,000 but it has a range from the minimum to the maximum of over \$100,000.

Comparison of Farm and Non-Farm Compensation

It is helpful to put farm wages within the context of the larger labor economy. The U.S. Bureau of Labor Statistics (BLS)² publishes wage information about a vast number of jobs. The following list includes the job title and median hourly wage for selected jobs in New York state in May 2020. BLS includes hourly pay and performance incentives in their hourly wage calculation so "regular wages per hour" would be the closest comparable number from the tables in this report.

•	First line supervisors of construction trades	\$43.63
•	Electricians	\$34.16
•	Carpenters	\$28.03
•	Heavy and Tractor Trailer Truck Drivers	\$24.76
•	Construction laborers	\$23.56
•	Outdoor power and small engine mechanics	\$19.91
•	Drywall installers	\$19.85
•	Slaughterers and meat packers	\$16.40
•	Laborers and material movers, hand	\$16.04
•	Cooks, Restaurant	\$15.77
•	Helpers, Roofers	\$14.76

References

Thanks

Our thanks to all of you who were willing to share your time and information for this study! We hope this provides a useful analysis and comparison as you manage your employee compensation strategy.

¹ Farm Labor Report, Released February 11, 2021, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

² U.S Bureau of Labor Statistics, May 2020 State Occupational Employment and Wage Estimates for New York, (https://www.bls.gov/oes/current/oes_ny.htm#53-0000), accessed September 21, 2021.

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (if applicable)	Author(s)
2022-09	2020 Farm Employee Compensation Benchmark Report		nith, L., and Karszes, J.
2022-08	The Economic Contributions of Agriculture to the Northern New York Economy: Jefferson, Lewis, Oswego, and St. Lawrence Counties, 2019 & 2020	Schmit, T., a	and Liu, X.
2022-07	Using Farm Assets for Retirement	Richards, S.	
2022-06	Estate Planning for Farm Families	Richards, S.	
2022-05	Doing Business Together - A joint Business Agreement Guide	Richards, S.	
2022-04	Business Transfer Guide - Juniot Generation	Richards, S.	
2022-03	Business Transfer Guide - Senior Generation	Richards, S.	
2022-02	Starting an AG-Business? A Pre-Planning Guide	Richards, S.	
2022-01	Six Year Trend Analysis 2020	Karszes, J.,	and Augello, L.
2021-07	Progress of the Dairy Farm Report: DFBS, NYS, 2020, 143 Farms	karszes, J.,	and Augello, L.
2021-06	Effects of NY Overtime Laws on Agricultural Production Costs and Competitiveness	Wolf, C., Stu	up, R., and Karszes, J.
2021-05	Jored Labor on New York State Dairy Farms: Cost, Efficienty & Change from 2011 through 2020	Karszes, J a	and Wolf C
2021-04	The Economic Contributions of Agriculture to the New York State Economy: 2019	Schmit, T.	
2021-03	2020 New York Berry Price Information	Yang, Z., Pa	ark, K.S., and Gómez, M.I.

Paper copies are being replaced by electronic Portable Document Files (PDFs). To request PDFs of AEM publications, write to (be sure to include your e-mail address): Publications, Department of Applied Economics and Management, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (http://dyson.cornell.edu/outreach/#bulletins) for a more complete list of recent bulletins.