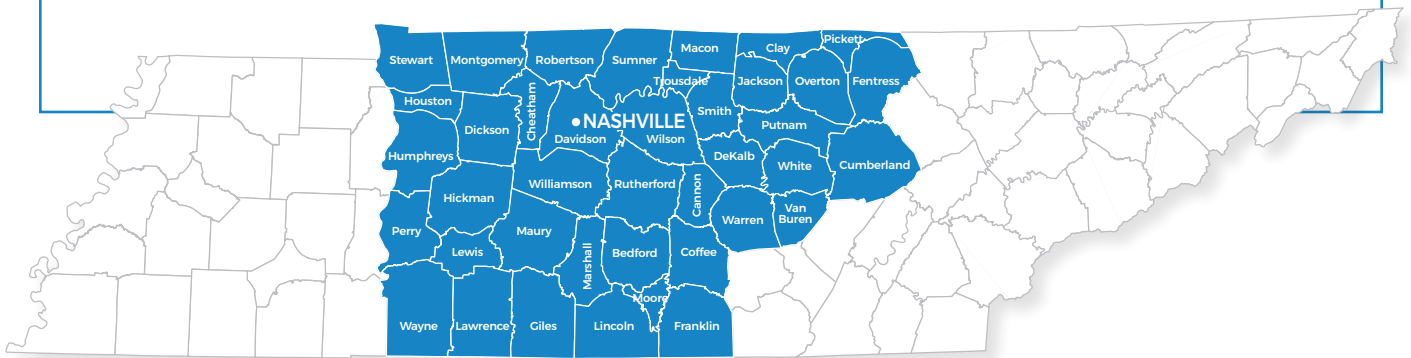


2019 MIDDLE TENNESSEE WAGE & BENEFIT SURVEY

SUMMARY REPORT



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Wage and Benefit Survey Project Team

This project is the product of the yearlong effort of the following individuals:

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Acknowledgment

I would like to thank the following individuals for their contributions to this project: Jie Lian, BERC undergraduate research associate; Bronwyn Graves, BERC graduate research associate; Dr. Steven Livingston, BERC associate director; Dr. Sam Zaza, assistant professor of information systems and analytics; and the staff of MTIDA for their work and support of this project.

Executive Summary

The Business and Economic Research Center (BERC) at Middle Tennessee State University conducted a 40-county wage and benefit survey in Middle Tennessee between May and September 2019. The wage and benefit survey was sponsored by Middle Tennessee Industrial Development Association (MTIDA) and USDA as well as regional partners—the Upper Cumberland Development District, the South Central Tennessee Development District, the Greater Nashville Regional Council, the Nashville Chamber of Commerce, The Highlands Economic Partnership, Tennessee Central Economic Authority, Tennessee Department of Labor and Workforce Development, and Tennessee Chamber of Commerce and Industry—and local chambers and economic development organizations. The purpose of the survey is to provide local economic development officials and human resource managers a clear understanding of the compensation structure of the key occupations in the region.

Across the region, 1,828 companies were invited to participate in this online wage and benefit survey. As of September 2019, BERC received 317 completed surveys with an overall response rate of 17.3 percent. To break down the response rate, email contacts generated a significantly higher response rate than the regular mail contacts: response rate for email contacts was 22.2 percent, while the response rate for the regular mail was 4.4 percent. The 317 companies employed 86,768 people, representing about 8.1 percent of all private jobs in the study market area.¹ The wage and benefit survey data is organized by establishment size, and BERC provides a detailed profile from the survey results of 136 occupations.

Key Highlights

General

- The average number of weekly hours is estimated at 11,335.
- Average annual sales of the covered establishments total \$136.1 million.
- On average, covered establishments offer 9.0 paid holidays per year.
- On average, covered establishments offer 10.7 annual vacation days.

Health Insurance and Benefits

- 92.3 percent of the companies offer health insurance. Cost sharing is a common practice among the companies.

¹ Quarterly Census of Employment and Wages (BLS)

- Companies offer a range of retirement benefits including a traditional retirement plan and defined contributions. About 79.5 percent of the responding companies offer defined contribution plans.
- Approximately 43.4 percent of companies offer career development opportunities, another 51.5 percent offer tuition payment, and 67.7 percent offer other forms of incentives and bonuses.
- Overall, total employee benefits equal to 29.6 percent of wages and salaries in the study market area.

Wages

- The unweighted median hourly wage across occupations in the study market area is \$27.6. The study provides details of wages and benefits for each occupational cluster.

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I. Introduction

The Business and Economic Research Center (BERC), Middle Tennessee State University, conducted a wage and benefit survey for a 40-county region, hereafter referred to as the “Middle Tennessee Region,” or “all-county region,” between May and September 2019. The wage and benefit survey was sponsored by Middle Tennessee Industrial Development Association (MTIDA) and USDA as well as regional partners—the Upper Cumberland Development District, the South Central Tennessee Development District, the Greater Nashville Regional Council, the Nashville Chamber of Commerce, The Highlands Economic Partnership, Tennessee Central Economic Authority, Tennessee Department of Labor and Workforce Development, and Tennessee Chamber of Commerce and Industry —and local chambers and economic development organizations. The purpose of the survey is to provide local economic development officials and human resource managers a clear understanding of the compensation structure of the key occupations in the area.

In designing the online wage and benefit survey, BERC consulted existing wage and benefits surveys as well as the U.S. Bureau of Labor and Statistics (BLS) methodology for the Quarterly Census of Employment and Wages (QCEW) and the BLS *Occupational Outlook Handbook* to make the regional survey results comparable to national and state level occupational characteristics. BERC retained the Standard Occupational Classification (SOC) codes for all occupations included in the survey.

To make the survey process manageable, BERC, in consultation with the MTIDA, targeted 1,828 companies. Although this study gathered information for around 140 occupations, the survey response rate did not allow for a detailed profile of all of these occupations. The detailed occupational profiles for 136 occupations will allow local economic development officials and companies to see how a given occupation benchmarked against average jobs in the region.

The rest of the report is organized as follows. After a brief discussion about the study region, study tasks, and general characteristics of industries in the region, section two introduces the conceptual framework and study methodology. Section three analyzes survey results, while section four provides rich details for the selected occupations.

I.A. Study Region

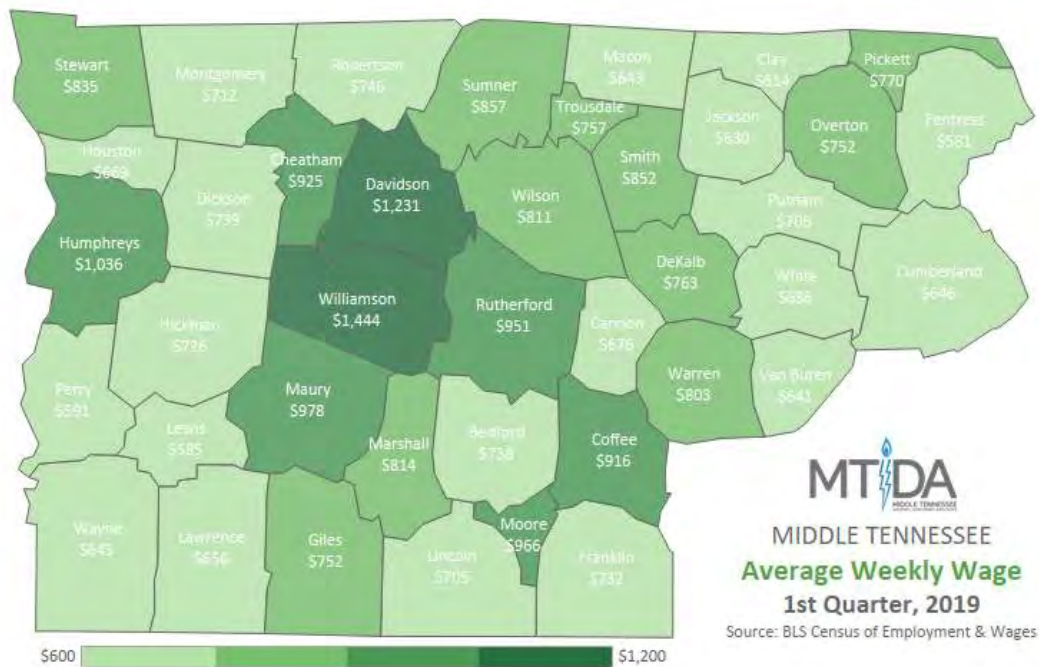
What is the study market area? The study market area includes 40 counties with a combined labor force of 1,444,775² as of the 1st quarter of 2019. A map of the region can be seen below.



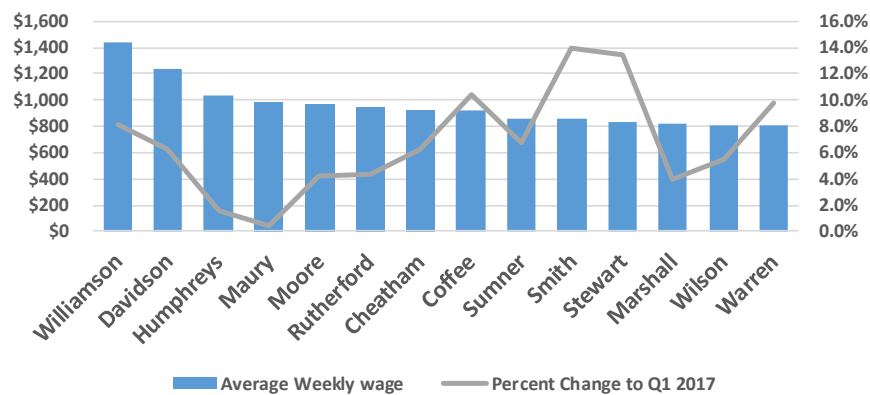
² Bureau of Labor Statistics

I.B. An Analysis of Sectoral Wages in All-County Region

The following map and wage panel presents average wage data for six different sectors of the economy across the 40-county region. The charts show the 14 highest counties in the region in terms of average weekly wage.³



**Region 14: Average Weekly Wage
1st Quarter 2019**



Source : QCEW (www.bls.gov) and BERC

³ Source: Quarterly Census of Employment and Wages (BLS), 1st Quarter of 2019

Region 14 : Average Weekly Wages by Sector and Percentage to 1st Quarter of 2017 (1st Quarter of 2019)



Source : QCEW (www.bls.gov) and BERC

I.C. Study Tasks and Research Questions

What is the purpose of this study? Which sectors are surveyed? What types of occupational data are collected? This section addresses these questions briefly, while the next section treats methodological issues. Primary research questions this survey addresses are:

- What is the compensation structure in the Middle Tennessee Region?
- What are the characteristics of the key occupations?
- How do average wages for the key occupations compare with overall average wages in the study region?

The purpose of this study is to answer these questions in a way that helps (1) human resource managers in the study region make informed decisions about the prevailing compensation structure when making hiring decisions and (2) local economic development officials understand the compensation structure in their market when helping prospective businesses successfully transition to their region.

In terms of compensation structure and occupational characteristics, the wage and benefit survey captures wages and benefits for each occupation as well as occupational characteristics, such as educational and licensing requirements, difficulty of filling vacant positions, trainee and entry level wages, and union membership. On the benefit side, the survey covers annual paid and unpaid leave; sick leave; personal days off; medical, dental, and vision insurance; retirement benefits; and incentives. Although the wage and benefit survey includes rich details about occupations, many of the completed surveys do not provide enough information about some of the employee characteristics. Because of missing data on selected occupational characteristics for some occupations, BERC profiled less than one-third of the surveyed occupations.

II. Conceptual Framework and Methodology

The wage and benefit survey of Middle Tennessee Region was a hybrid mailed and online survey with multiple reminders to all companies surveyed in the study market area. In this section, we briefly review issues regarding the survey design and analysis and define certain concepts used throughout the data analysis section.

II.A. Definitions

The following concepts will be used throughout the rest of the report:

Annual Wage: Annual wage is annualized salary and wages, calculated as follows:

$$\begin{aligned}\text{Annual Wage} &= 52 \times \text{Weekly Wage (1 Year = 52 Weeks)} \\ &= 52 \times (40 \times \text{Hourly Wage}) \text{ (1 Week = 40 Hours)} \\ &= 52 \times (5 \times 8 \times \text{Hourly Wage}) \text{ (Work Week = 5 Days; and 1 Day = 8 Hours)}\end{aligned}$$

Mean (Average) Wage: Average wage is the sum of the wages divided by the number of reporting establishments.

$$\text{Average Wage} = (\text{sum of the wages}) / (\text{number of establishments reporting that occupation})$$

$$\text{Weighted Average Wage} = (\text{sum of the total wages for an occupation}) / (\text{number of jobs in that occupation})$$

Median (Middle Position) Wage: Median wage represents the wage level that 50 percent of wages fall above and 50 percent of the wages fall below.

Difficulty of Filling: Difficulty of filling a vacant position, with 1 being extremely easy and 10 being extremely difficult.

II.B. Survey Design

BERC designed the survey in consultation with local economic development officials. A list of local companies was prepared, and each company was assigned a unique ID to access the online survey, which was hosted on the BERC website. The wage and benefit survey included a section about each company's total employment, annual revenues, and percent of part-time workers. The second section of the survey included a list of benefits a typical business offers to its employees.

The occupational employment section was carefully prepared. Using the BLS (www.bls.gov) staffing pattern for the manufacturing sector, BERC in consultation with local economic development officials prepared a list of occupations to be surveyed. BERC retained the original SOC code and title for occupations for the purpose of comparing the local compensation structure with the regional, state, or national compensation structure for the same occupation.

The survey also included several characteristics of each occupation for a detailed analysis. These characteristics include number of jobs, part-time status, trainee-level wage, entry-level wage, current wage, number of vacancies, licensing requirement, educational level requirement, and difficulty of filling a vacant position. For further details about the survey, see the separate appendix.

II.C. Survey Process and Data

BERC conducted a hybrid online and mailed wage and benefit survey between May and September 2019. All surveyed companies in the study market area received a cover letter and printed or electronic copy of the survey as well as instructions for online completion. Initially, 1,828 companies received the survey. To increase the sample size, BERC sent several reminders by email after the initial invitation to participate was sent. The final tally is shown in Table 1.

BERC received 317 completed surveys with a response rate of 17.3 percent. It is important to note that response rate for e-mail contacts was about 22.2 percent.

Table 1: Wage and Benefit Survey Procedure and Response Rate

Number of Companies Surveyed	1,828
Number of Completed Surveys	317
Response Rate	17.34%
Survey Procedure	
Mode:	Online and Mailed Survey
Initial Letter:	Cover Letter with Survey Package, Company ID and Password
Reminders:	By email
Survey Closing Date:	October 2019
Response Rate by Initial Contact Type	
E-mail Contacts	1329
Responses Generated	295
Response Rate	22.20%
Regular Mail Contacts	499
Responses Generated	22
Response Rate	4.41%

II.D. Data Analysis

BERC checked all survey data for accuracy and consistency. The cleaned survey database contains a unique company code for each responding company and survey responses to the survey categories. The companies did not respond to every occupation initially included in the survey; overall, the companies supplied information for 136 occupations. In the following section, BERC presents the survey results.

III. Survey Results

This section provides a comprehensive analysis of the wage and benefit survey. First, BERC regroups the companies by employment size using the following three categories:

- Less Than 100
- 100–350
- More than 350

All major categories of data except wage by occupation are presented using these three categories. Where data is available, BERC presents survey findings using both unweighted (by establishment) and weighted (by number of jobs) mean and median. Occupational wages include both hourly and annualized wages, which assume a 40-hour workweek and 52 annual workweeks.

III.A. Establishment Size, Employment, and Revenue

Of the establishments surveyed, 53 percent identified themselves as having fewer than 100 employees. An additional 30 percent recorded having between 100 and 350 employees. Overall, these 312 companies account for a total of 86,768 employees, an average of 278 per company. Of these employees, 3.8 percent were part-time.

Table 2: Wage and Benefit Survey: Employment by Establishment Size and Part-Time Status

Employment Size	Number of Companies	Number of Employees			Part-Time Workers (%)
		Total	Median	Average	
Less Than 100	166	6,982	39	42	4.04%
100-350	94	17,921	171	191	2.68%
Over 350	52	61,865	678	1190	5.31%
Regional	312	86,768	93	278.1	3.84%

Average weekly hours. The table below presents average weekly hours in the study market area: In general, median weekly work hours are 2,320 in the study market area. Average weekly hours per employee are around 40. The table below shows average weekly work hours for companies by employment size: average weekly work hours for employees working at companies in the over-350 employment range are 37,012. At the other end of the spectrum are companies with employment less than 100, whose average weekly work hours total 1,278.

Table 3: Wage and Benefit Survey: Average Weekly Hours

Employment Size	Average Weekly Hours	Average Weekly Hours Per Employee	Median Weekly Hours	Median Weekly Hours Per Employee
Less than 100	1,277.81	40.16	909	40.0
100-350	6,449.80	40.03	6,440	40.0
Over 350	37,012.12	39.95	22,700	40.0
Regional	8,791.75	39.98	2,320	40.0

Union Membership. A few companies in the study market area have a unionized workforce. Because these companies represent about 5 percent of total responses, BEREC excluded them from a detailed analysis.

Annual Revenues. Overall, the average annual sales total \$136 million with a median of \$20 million. More details of revenues by company size can be seen in the table below.

Table 4: Wage and Benefit Survey: Average Annual Sales

Employment Size	Number of Companies Reporting	Average Sales	Median Sales
Less than 100	166	\$15,021,250	\$7,581,000
100-350	94	\$75,956,244	\$37,516,000
Over 350	52	\$631,352,488	\$149,197,575
Regional	312	\$136,101,743	\$20,000,000

III.B. Employee Benefits

BERC asked four sets of questions regarding employee benefits: time off, medical insurance, retirement, and education and other benefits. This section first provides a brief overview of employers' responses for each category and then analyzes each specific benefit in further detail.

Time off.⁴ In this category of benefits, BERC included paid and unpaid holidays, paid vacation days, paid sick leave, paid jury duty, personal paid time off, and time off to vote. These benefit categories are in line with other wage and benefit studies as well as official methodologies such as those of BLS (www.bls.gov). Four major benefits top the chart: paid holidays, annual vacations, paid jury duty, and annual sick leave.

Table 5: Wage and Benefit Survey: Benefits (Time off)

Type of Benefit	Number of Responses	Percent of Companies
Paid Holidays	263	97.0%
Paid Vacation Days	262	90.5%
Paid Sick Leave	262	41.2%
Paid Jury Duty	226	72.6%
Time-off to Vote	227	23.8%

⁴ BERC would like to caution readers that a number of respondents grouped all variations of "time off" and did not distinguish between sick leave, vacation, etc. Estimates given are conservative in nature and take this into account.

How do paid holidays, annual vacations, and annual sick leave vary by employment size? Chart 1 below presents median and average paid holidays by employment size. On average, the study market area companies offer 9.1 paid holidays annually. Chart 2 provides a frequency distribution of paid holidays by number of companies.

Chart 1: Wage and Benefit Survey: Average Paid Holidays by Employment Size

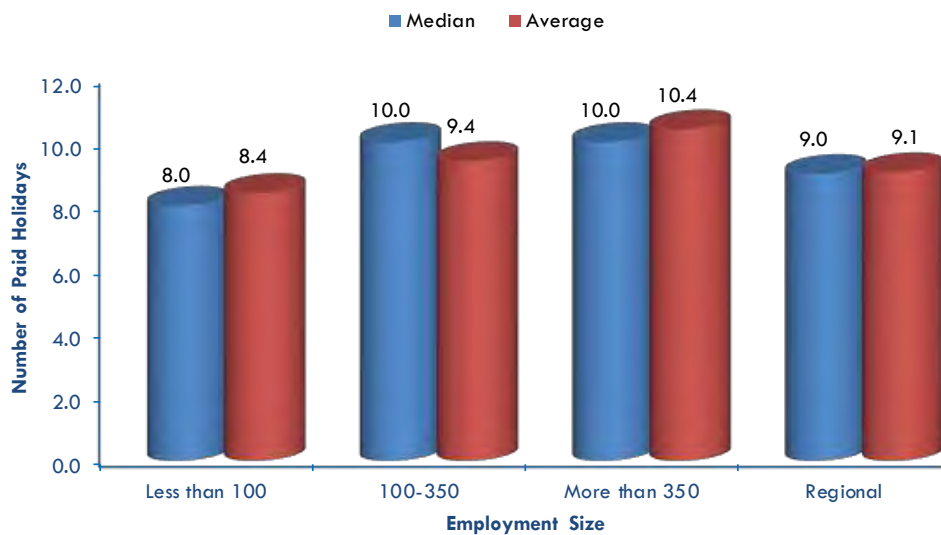
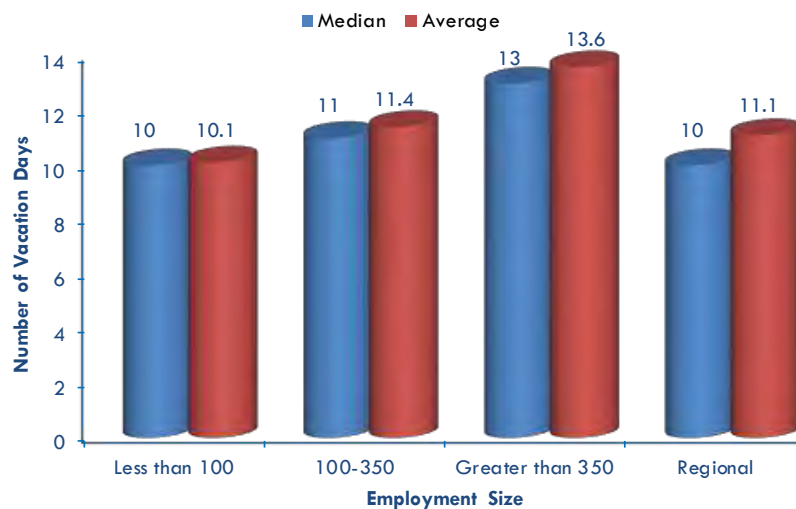


Chart 2: Wage and Benefit Survey: Number of Paid Holidays

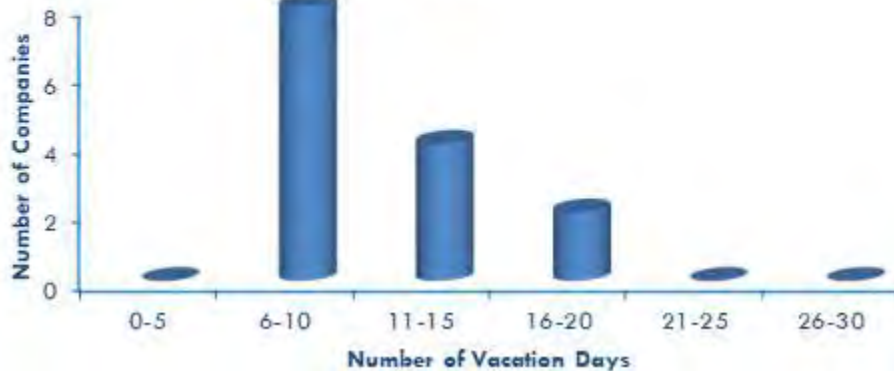


Chart 3 presents median and average annual vacations by company size. Overall, average vacation time in the study market area is 10 days. In interpreting vacation days, BERC cautions the reader that many companies have graduated vacation days that change with employees' tenure at a given company. Vacation days presented in Charts 3 and 4 suggest that if you become an employee of an area company, on average you can expect to receive around 11 vacation days. Most employers offer between 6 and 15 days of vacation as seen in Chart 4.

**Chart 3: Wage and Benefit Survey:
Vacation Days by Employment Size**

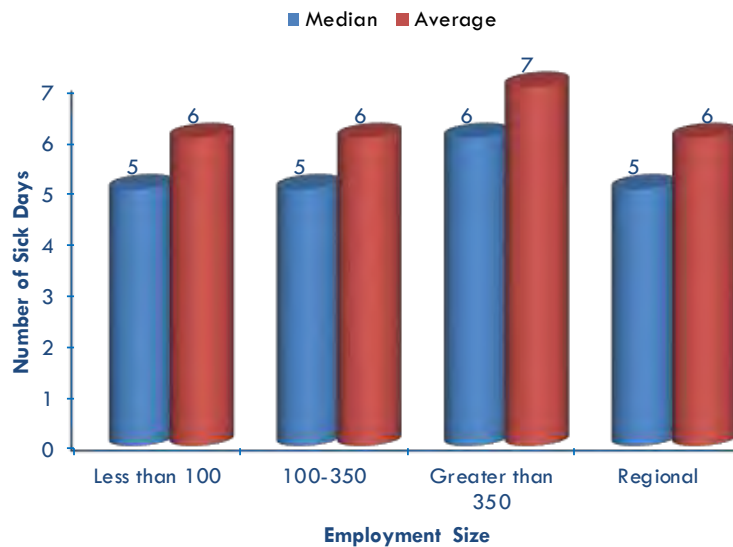


**Chart 4: Wage and Benefit Survey: Number of Vacation
Days**

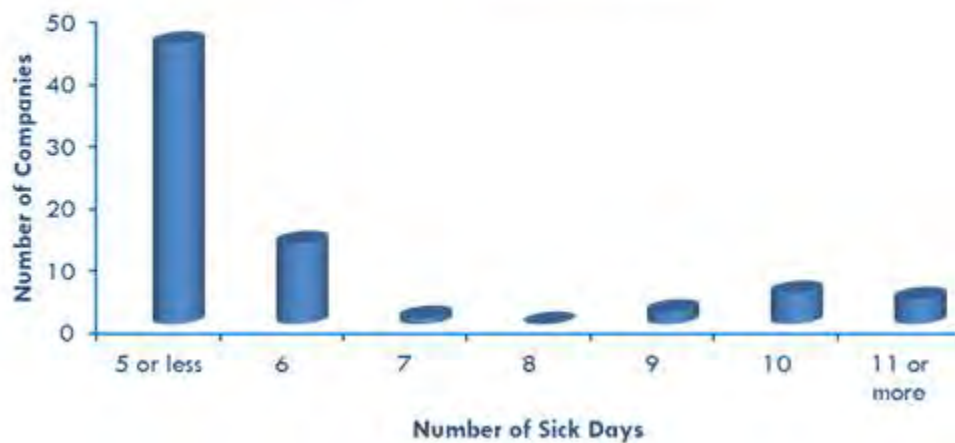


Finally, 41 percent of employers in the study market area offer sick leave. Companies in Region 14 commonly offer 6 to 7 days of sick leave. Many companies do not offer sick leave and instead give employees a set amount of time off for illness, vacation, and so forth.

**Chart 5: Wage and Benefit Survey:
Sick Days by Employment Size**



**Chart 6: Wage and Benefit Survey:
Number of Paid Sick Days**



Insurance. What kinds of medical insurance do area companies offer their employees? Who pays what portion of the insurance premiums? The table below provides the percent of area companies offering health, dental, vision, life, and disability insurance to their employees.

Table 6: Wage and Benefit Survey: Insurance

Type of Insurance	Insurance to Employees		Who Pays?					
	Number of Responses	Percent of Companies	Employee	Percent of Companies	Employer	Percent of Companies	Cost Shared	Percent of Companies
Health	259	92.3%	0	0.0%	5	2.1%	234	97.9%
Dental	259	90.3%	1	0.4%	2	0.9%	231	98.7%
Vision	263	84.8%	3	1.3%	1	0.4%	219	98.2%
Life	262	84.4%	1	0.5%	55	24.9%	165	74.7%
Disability	263	79.8%	10	4.8%	63	30.0%	137	65.2%

Only a fraction of companies reported cost data.

The highlights from the above table are that more than 79 percent of the companies offer all types of insurance.

When companies offer insurance benefits to dependents, who pays?

Table 7 presents findings from the wage and benefit survey. As shown in Table 7, more than 90 percent of companies indicated the cost of health, dental, and vision insurance is shared between employer and employee.

Table 7: Wage and Benefit Survey: Insurance for Dependents

Type of Insurance	Who Pays?					
	Employee	Percent of Companies	Employer	Percent of Companies	Cost Shared	Percent of Companies
Health	1	0.4%	1	0.4%	237	99.2%
Dental	1	0.4%	2	0.9%	231	98.7%
Vision	4	1.8%	0	0.0%	219	98.2%

What is the average cost of providing medical insurance?

Overall, employees are expected to pay on average of \$1,580 for health insurance, \$243 for dental, and \$81 for vision. Employers' share for each employee is significantly higher for health (\$5,324) and dental insurance (\$500) while relatively lower for vision insurance (\$140). These costs are for insuring an employee. When dependents become part of the benefit plan, individual cost for employees' health insurance increases to \$5,437, dental to \$677, and vision to \$220. Similarly, the cost to employers of insuring dependents increases significantly for health (\$12,769) and vision insurance (\$885) but decreases for dental (\$354). Of course, the cost of insurance to both employees and employers varies by establishment size. Table 8 provides detailed cost figures by establishment size.

Table 8: Wage and Benefit Survey: Average Cost of Insurance

Employment Size	Insurance for Employees					
	Health Insurance		Dental Insurance		Vision Insurance	
	Employee Cost	Employer Cost	Employee Cost	Employer Cost	Employee Cost	Employer Cost
Less Than 100	\$1,808	\$4,982	\$280	\$740	\$88	\$131
100-350	\$1,370	\$5,547	\$222	\$396	\$74	\$154
Over 350	\$1,408	\$5,998	\$166	\$277	\$73	\$111
Regional	\$1,580	\$5,324	\$243	\$500	\$81	\$140

Employment Size	Insurance for Dependents					
	Health Insurance		Dental Insurance		Vision Insurance	
	Employee Cost	Employer Cost	Employee Cost	Employer Cost	Employee Cost	Employer Cost
Less Than 100	\$6,444	\$10,834	\$782	\$574	\$222	\$295
100-350	\$4,701	\$13,394	\$635	\$1,182	\$218	\$424
Over 350	\$4,282	\$16,760	\$310	\$781	\$215	\$268
Regional	\$5,437	\$12,769	\$677	\$885	\$220	\$354

Only a fraction of companies reported cost data.

Retirement and Other Benefits. Nearly 82 percent of companies in the study market area offer defined contribution plans to their employees (Table 9). Profit sharing is offered by about 12.3 percent of the companies. Traditional pension plans are offered by 6.8 percent and employee stock ownership plans by 8.9 percent of the companies.

Table 9: Wage and Benefit Survey: Types of Retirement Plans

Type of Plan	Number of Companies	Percent of Companies
Traditional Pension Plan	235	6.81%
Defined Contribution (401K, 403K, IRA, etc.)	237	81.43%
Profit Sharing	235	12.34%
Employee Stock Ownership Plan	235	8.94%

Some other benefits the surveyed companies offer their employees include career development, tuition payment, and other benefits and incentives. Table 10 provides the number and percent of companies offering these benefits. Overall, 43 percent offer career development, 52 percent offer tuition payment, and 68 percent offer incentives and bonuses.

Table 10: Wage and Benefit Survey: Types of Incentives and Bonuses

Type of Bonus and Incentive	Number of Companies	Percent of Companies
Career Development	226	43.36%
Tuition Payment	262	51.53%
Incentives and Bonuses*	229	67.69%

*These incentives and bonuses include safety, production, and sales performance bonuses, discretionary bonuses, attendance bonuses, holiday bonuses, and other.

Educational Reimbursement Benefits. The table below provides data on the number of employees taking advantage of educational reimbursement. Corporations with employee size more than 350 have the highest percentage of employees taking advantage of educational benefits, 80 percent. The companies with employee size between 100 and 350 have the highest percentage of employees completing educational programs (70 percent). The companies with less than 100 employees have the highest retention rate (75.9 percent).

Table 11: Employees Receiving Educational Reimbursement

Company Size	Average Number of Employees Taking Advantage of Educational Reimbursement	Average Percent of Company Employees Taking Advantage of Educational Reimbursement	Average Percent of Employees Completing the Program	Average Percent of Employee Retention After Program Completion
Less Than 100	7.0	30.37%	66.00%	43.33%
100-350	7.8	70.73%	78.99%	37.57%
More than 350	17.6	80.00%	62.28%	20.66%
Regional	9.9	51.53%	69.83%	31.75%

Do Companies Offer Educational Reimbursement Benefits? Of 262 companies responding to this question, 135 indicated they offer educational-reimbursement programs. For many companies, a full-time employee must work several months before receiving benefits. Fifty-five percent of companies require one year of service before receiving reimbursement, 23 percent require 6 months, and 16 percent require three months or less.

How much educational benefit do the companies offer? About 135 companies reported monetary data on the amount of educational reimbursement: 61 percent offers up to 100 percent tuition reimbursement.

Is there a limit to what employees can study to qualify for reimbursement? All reporting companies limit employees on what they can study to receive reimbursement. Typically, the requirement is that the field must be either directly related to the job, related to a future position within the company, or useful to the company in some form. About 75 percent of companies usually reimburse their employees' educational expenses after the class is completed. Fifteen percent pay before or during enrollment.

What are the reimbursement criteria? Many companies indicated reimbursement is based on the grade employees earn. Nearly 55 percent require a grade of C or above for full reimbursement. About 20 percent pay for a passing grade. Two percent of companies have no grade requirements.

How do companies advertise educational-reimbursement benefits? Most companies advertise these benefits in more than one place. The most common places are through company postings, the employee handbook, and the hiring and orientation process.

Where do these employees study? Employees study at wide range of institutions including public and private four-year universities, online schools, local community colleges, Tennessee College of Applied Technology (TCAT) centers, other technical programs, and conferences and workshops. In Region 14, Middle Tennessee State University, Motlow State Community College, and Tennessee Colleges of Applied Technology were the most common places for employees to study.

Program completion and retention. Of the employees that started the program, an average of 51.5 percent completed it. On average, almost 10 percent of company employees took advantage of educational reimbursement. The companies reported that 70 percent of all employees completing the program are still employed at the company. About 32 percent of companies reported that completing educational programs helped employees.

III.C. Value of Benefits

Total compensation for an employee consists of wages and benefits. BERC asked employers to report average value of employee benefits as a percent of wages and salaries. A total of 175 companies (56 percent of the sample size) reported their employee benefits as a percentage of wages and salaries. Average benefits equal 30 percent of employee wages and salaries. BERC will use this average figure to estimate total employee compensation throughout the rest of this analysis. The following formula for each occupation will be used:

$$\text{Total Compensation} = \text{Average Wage} + (\text{Average Wage} \times 0.30)$$

III.D. Selected Workplace Issues

BERC asked covered employers questions about a few selected workplace issues: employee turnover, absenteeism, and training needs.

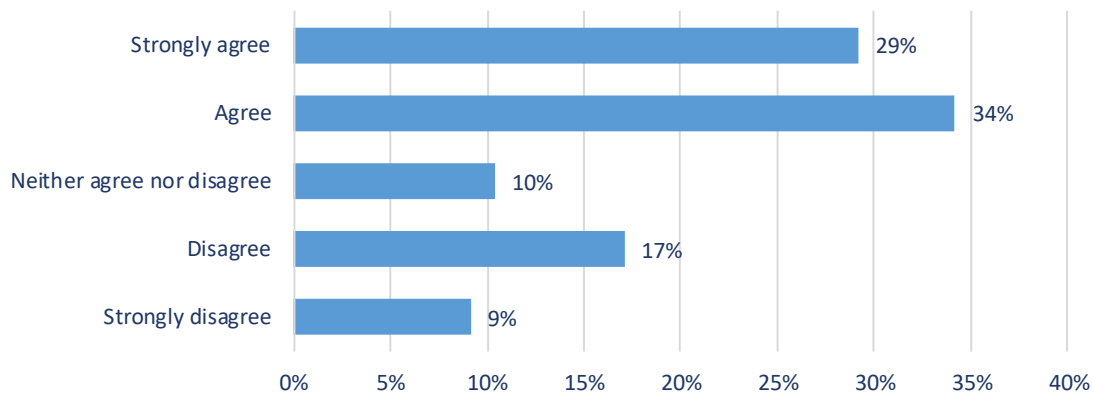
Employee Turnover. What percent of companies cite employee turnover as an issue? Out of 240 responses, 63 percent of employers say this is an issue. A majority of companies answering “Yes” are either small or mid-size.

Region 14: How many employees voluntarily left your organization within the last 12 months?

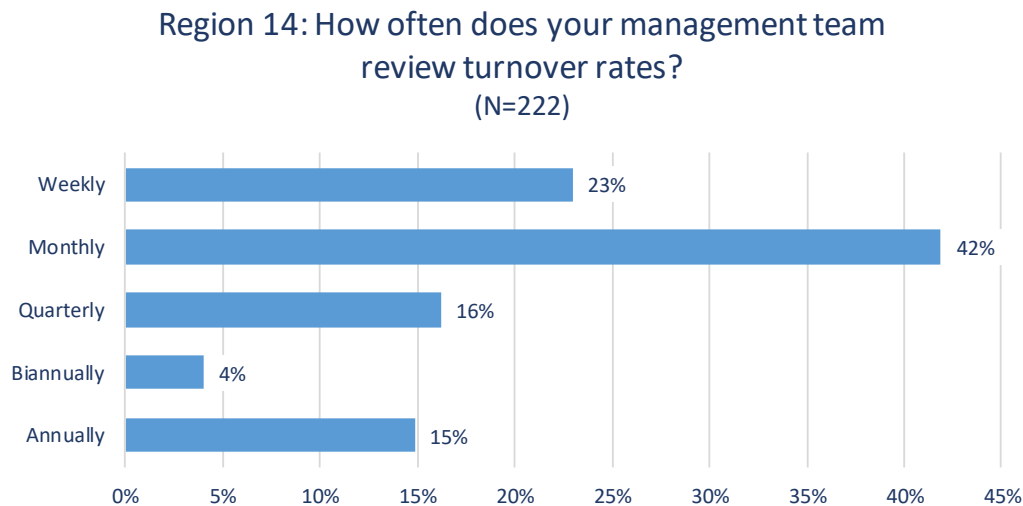
Employment Size	Number of Companies	Turnovers		
		Total Annual Turnovers	Average Annual Turnovers Per Company	Average Annual Percent Turnover
Less than 100	99	1,432	14	34%
100 to 350	69	3,241	47	23%
More than 350	30	6,925	231	30%
Grand Total	198	11,598	59	30%

What is the average percent of employee turnover? On average, the annual employee turnover rate is over 30 percent. When asked about the reason for turnover, the entire survey region mentioned job-related factors—such as pay, schedule, overtime, drug tests, shift work, retirement, and location—or personal factors—such as absenteeism, job abandonment, family and personal issues, relocation, and other employment opportunities.

Region 14: Our management team finds turnover to be a challenge in our organization's normal operations.
(N=240)



In Region 14, about 65 percent of responding companies review turnover rates weekly or monthly.



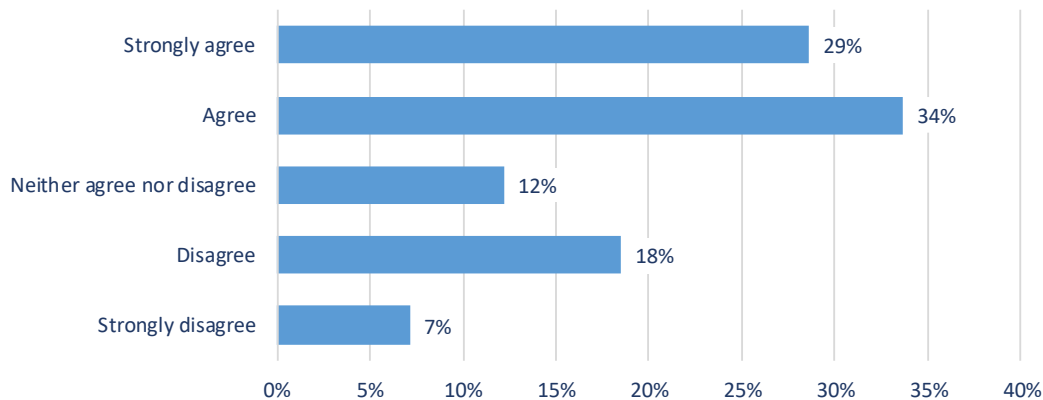
Absenteeism. Is employee absenteeism a problem? Sixty-three percent of respondents say it is. This issue affects all company sizes.

Region 14: What is the approximate average annual absenteeism rate at your organization?

Employment Size	Number of Companies	Absenteeism		
		Total Annual Absenteeism Cases	Average Annual Absenteeism Cases Per Company	Average Annual Percent Absenteeism
Less than 100	87	320	4	8%
100 to 350	52	1,174	23	12%
More than 350	30	3,116	104	14%
Grand Total	169	4,610	27	10%

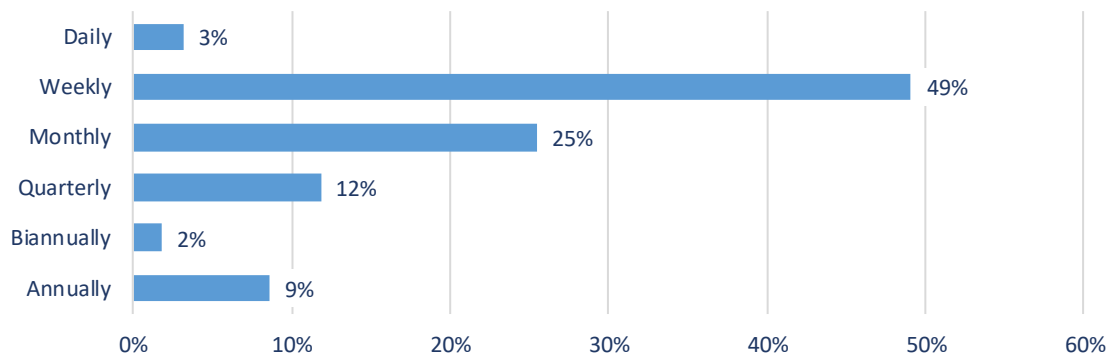
What is the average annual employee absenteeism rate? Surveyed companies average 10 percent absenteeism each year. When asked the most important factors for absenteeism, the entire survey region cited personal and family illness, transportation, emergency, childcare, and appointments.

Region 14: Our management team finds absenteeism to be
a challenge in our organization's normal operations.
(N=238)



In Region 14, about 77 percent of companies review absenteeism daily, weekly, or monthly.

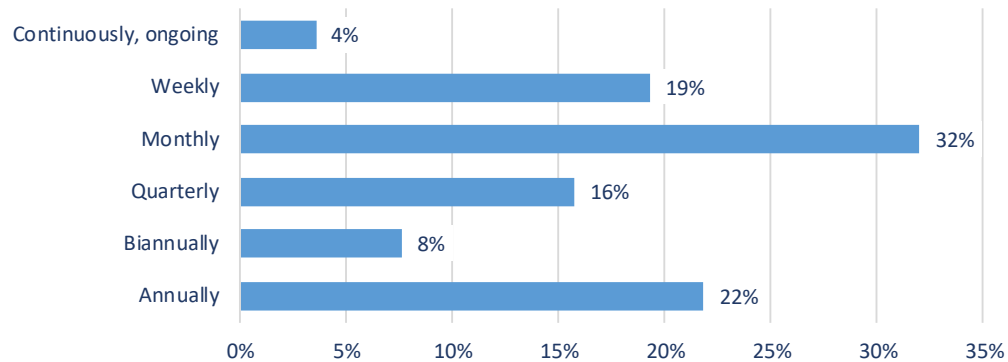
Region 14: How often does your management team review
absenteeism rates?
(N=220)



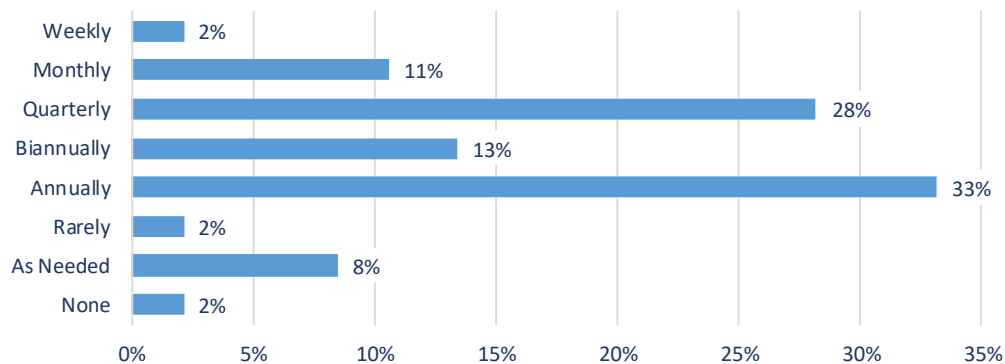
Training Needs. What types of training companies would like to see offered? The entire survey region cited equipment training, maintenance, computer skills, safety and technical skills, management and soft skills, and leadership development as the top training interests.

Companies in Region 14 offer onsite training more frequently than offsite training. Fifty-five percent of Region 14 companies offer onsite training continuously, weekly, or monthly, while only 13 percent offsite training weekly or monthly.

Region 14: How often does your company offer training
for your employees?
(N=197)



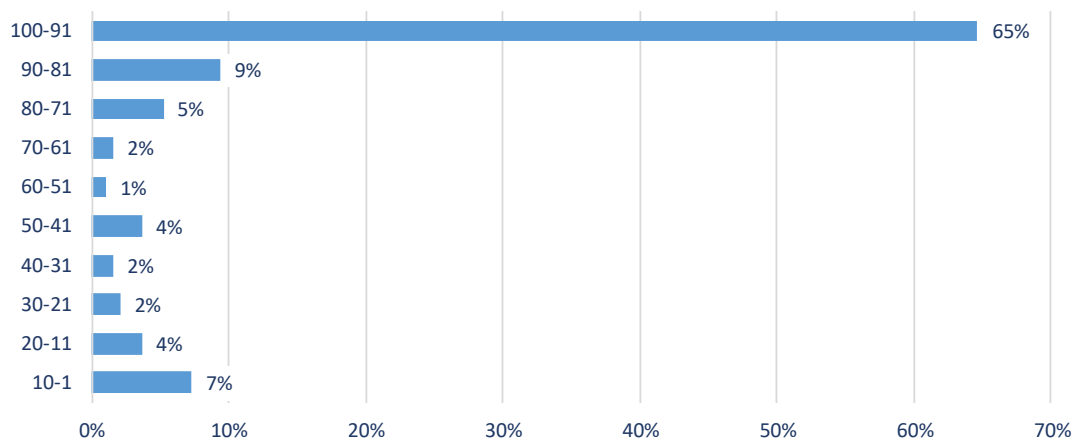
Region 14: How often does your company offer **offsite**
training for your employees?
(N=142)



In Region 14, most respondents report that over 80 percent of their employees participate in onsite training. However, only 8 percent of companies in Region 14 report that more than half their employees participate in offsite training. Most companies report that less than 10 percent of employees participate in offsite training.

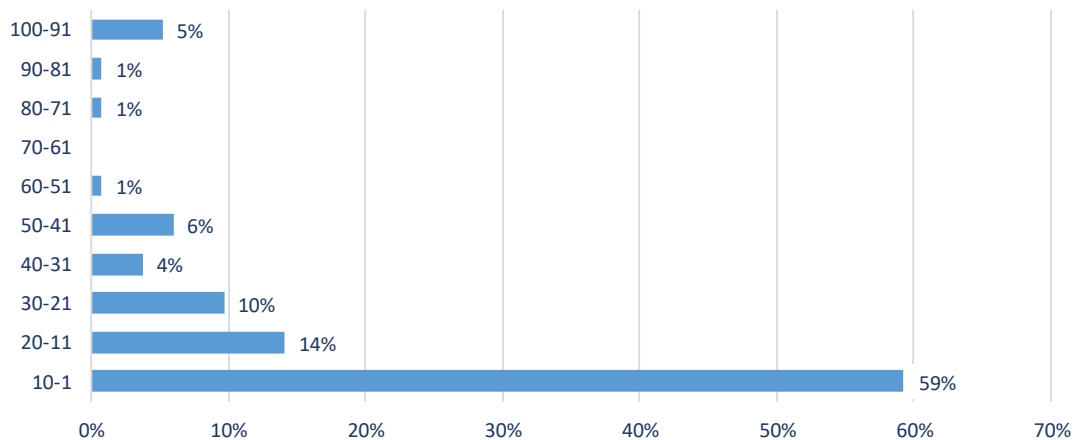
Region 14: Estimate the percentage of your employees who participate in **onsite** training?

(N=192)



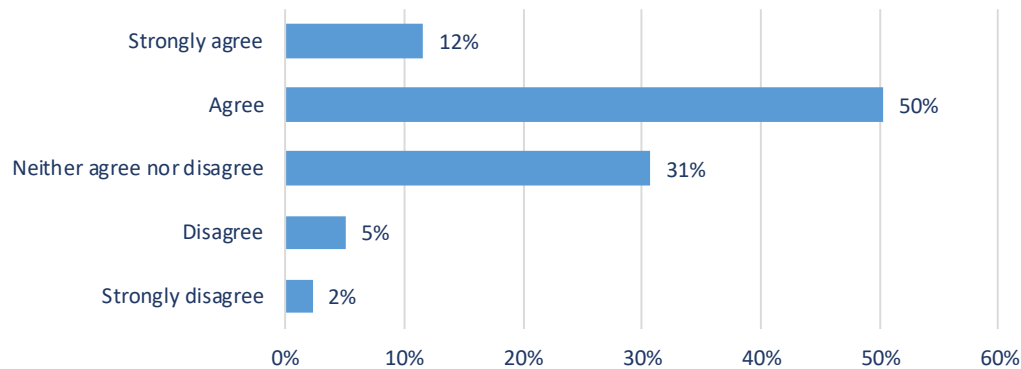
Region 14: Estimate the percentage of your employees who participate in **offsite** training?

(N=135)

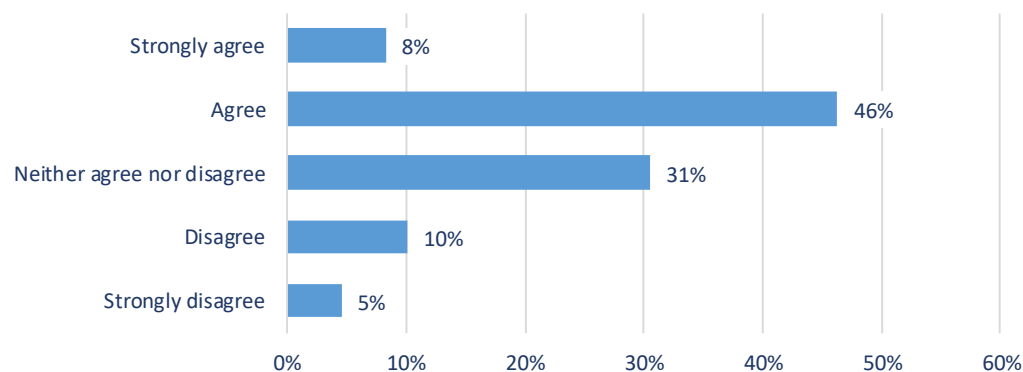


Sixty-two percent of Region 14 companies agree that training resources are available in Middle Tennessee. Similarly, 54 percent of Region 14 companies report they are likely to participate in a future survey about training needs.

Region 14: There are training resources available in Middle Tennessee to meet our needs.
(N=215)

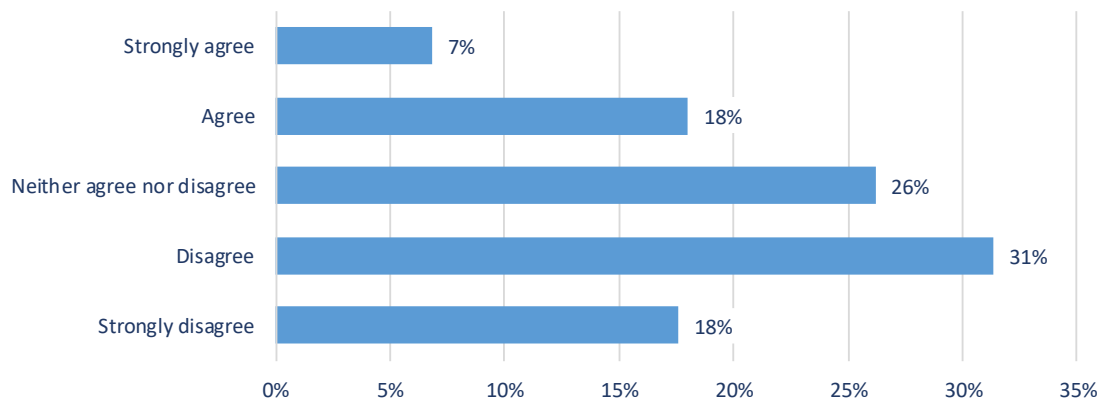


Region 14: Our organization is likely to participate in a survey or study focused on training needs.
(N=216)



Drug-Testing. Additionally, we report responses for whether a company considers drug-related issues to be a problem for their employees. In Region 14, 25 percent of companies reported this to be an issue for their employees or their families.

Region 14: Drug or addition-related issues have represented a significant challenge to our employees or their families over the last 12 months
(N=233)



III.E. Wages by Occupation

This section provides wage data for manufacturing companies and selected occupations surveyed in the study market area. The wage data will be presented in two general formats: (1) average wage by establishment size and cumulative wage distribution and (2) average wage by selected occupation. In presenting wage data, BERC will use both weighted (by jobs) and unweighted (by establishment) data. However, in the next section, in which we profile 136 occupations, BERC will use establishment-level (unweighted) wage data.

As previously stated, BERC, in consultation with local economic development officials, originally identified occupations for the wage and benefit survey. The 210 companies responding to the survey provided data for 136 occupations listed. If fewer than three companies reported on a given occupation, BERC excluded that occupation from the list.

Wages by Establishment Size. Throughout this section, BERC uses establishment size and company size interchangeably. How do wages vary by establishment size? Table 11 presents aggregate wage data by both hourly and annualized wage. Unweighted wage data is the establishment data, whereas weighted wage data is employment adjusted. Overall, companies

pay an average hourly wage of \$30.57 in the study market area. The median establishment wage is \$25.68. Annualized average and median establishment wages are \$63,583 and \$53,414, respectively. Table 11 illustrates slight variations in wage by employment size.

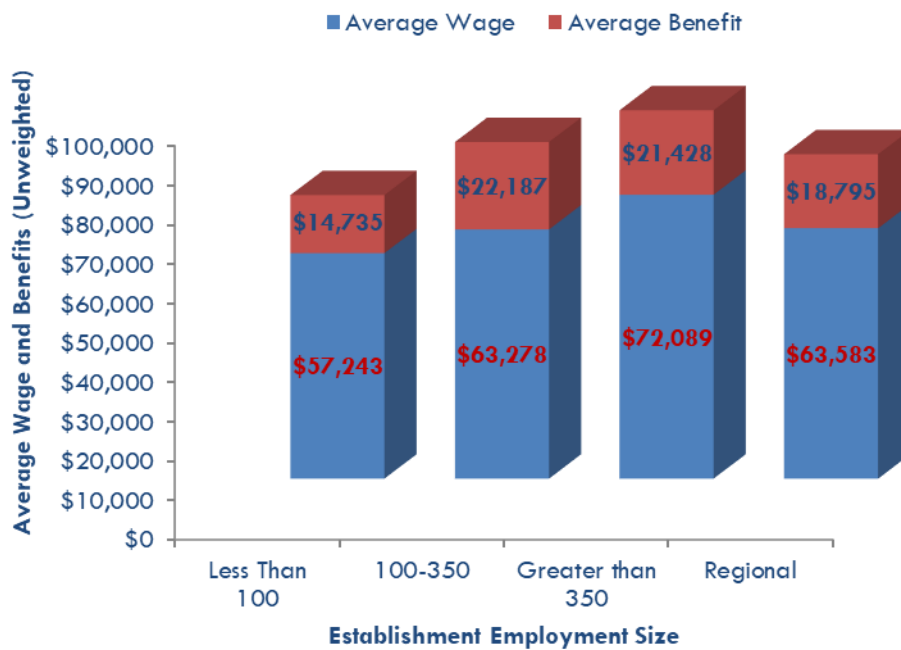
Table 11: Wage and Benefit Survey: Average Wages by Employment Size

Employment Size	Unweighted Hourly Wages		Weighted Hourly Wages		Number of Jobs
	Average (Mean)	Median	Average (Mean)	Median	
Less than 100	\$27.52	\$22.23	\$28.75	\$23.91	1,256
100-350	\$30.42	\$26.00	\$31.24	\$26.42	1,202
Over 350	\$34.66	\$31.18	\$34.26	\$31.00	781
Regional	\$30.57	\$25.68	\$33.42	\$29.25	3,239

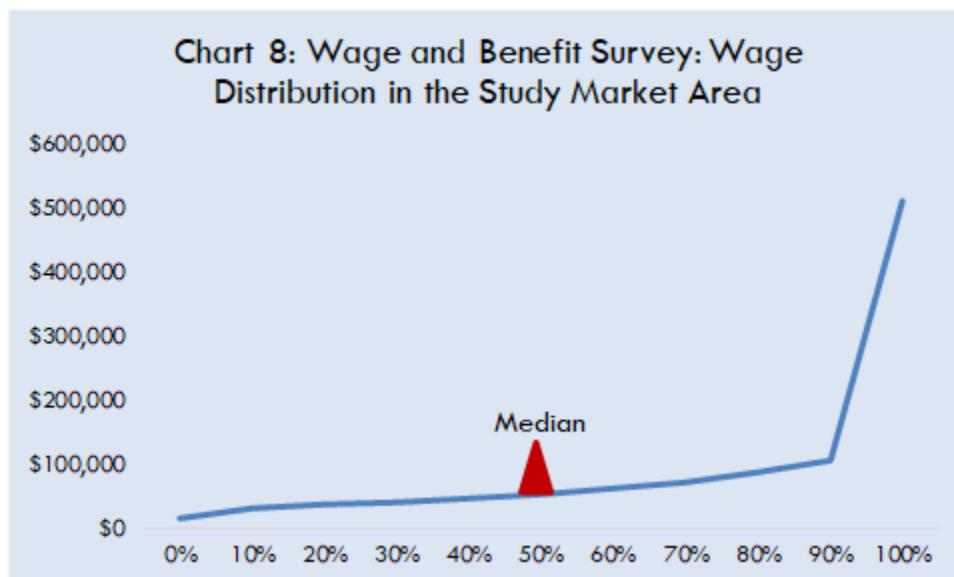
Employment Size	Unweighted Annual Wages		Weighted Annual Wages		Number of Jobs
	Average (Mean)	Median	Average (Mean)	Median	
Less than 100	\$57,243	\$46,238	\$59,799	\$49,733	1,256
100-350	\$63,278	\$54,080	\$64,971	\$54,954	1,202
Over 350	\$72,089	\$64,854	\$71,264	\$64,480	781
Regional	\$63,583	\$53,414	\$69,513	\$60,840	3,239

Chart 7 presents average compensation (wages + benefits) by establishment size. Although average compensation varies by establishment size, overall compensation in the study market area is \$82,377 (\$63,583+ \$18,795). The total compensation figures in Chart 7 represent unweighted establishment wages and benefits.

**Chart 7: Wage and Benefit Survey:
Total Compensation by Employment Size**



Finally, Chart 8 below plots wage distribution in the study market area. Overall distribution suggests wage distribution is highly skewed at the ninth and tenth deciles. The median wage in the distribution is marked on the chart, and this chart will be used in the occupational templates.



Wage by Occupations. Where data is available, this section presents occupational information by trainee-level wage, entry wage, average wage, number of jobs, educational requirement, difficulty of filling vacant positions, and licensing requirement. Appendix I-IV tabulate the covered occupations by employment, educational and licensing requirements, difficulty of filling vacant positions, and current openings, as well as the occupational-level wage data.

IV. Detailed Occupational Profiles (Separate File)

This section includes templates for 136 occupations. Data reported in each of these templates have already been reported in previous sections. What is new in these templates is that the company characteristics are provided for the companies reporting that job. These profiles are labeled as Profiles 1–136. Each profile may be used as a standalone document for informational purposes.



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- (1) Number of Companies Reporting
- (2) Number of Jobs
- (3) Number of Openings and
- (4) Difficulty of Filling

II. Appendix Tables II-IIC: Characteristics of the Covered Occupations:

- (1) Minimum Education Requirement (Breakdown by Responses) and
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- (1) Trainee-Level Wages
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- (4) Actual Average Hourly Wages

IV. Appendix Tables IV-IVC: Average Annualized Wages for the Covered Occupations:

- (1) Weighted (by Job) Median and Average Wages and
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Appendix Table I: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations					
SOC Code and Title		Number Companies Reporting	Number Jobs	Number Current Openings	Difficulty of Filling (1-10)
11-0000 Management Occupations					
11-1011	Chief Executives	106	169	4	7
11-1021	General and Operations Managers	149	432	11	6
11-2021	Marketing Managers	38	64	1	6
11-2022	Sales Managers	66	185	9	6
11-3012	Administrative Services Managers	46	102	0	5
11-3013	Facilities Managers	62	74	4	6
11-3021	Computer and Information Systems Managers	50	63	1	6
11-3030	Financial Managers	88	135	3	6
11-3050	Industrial Production Managers	76	668	5	6
11-3060	Purchasing Managers	62	75	1	6
11-3070	Transportation, Storage, and Distribution Managers	67	123	8	6
11-3120	Human Resources Managers	112	121	0	6
11-3131	Training and Development Managers	13	14	0	6
11-9020	Construction Managers	5	12	3	8
11-9040	Architectural and Engineering Managers	37	62	2	7
11-9161	Emergency Management Directors	8	3	0	7
11-9199	Managers, All Other	82	374	13	6
13-1000 Business Operations Specialists					
13-1020	Buyers and Purchasing Agents	60	157	5	5
13-1031	Claims Adjusters, Examiners, and Investigators	4	9	0	5
13-1040	Compliance Officers	4	10	0	6
13-1070	Human Resources Workers	77	171	2	5
13-1080	Logisticians and Project Management Specialists	30	102	2	6
13-1111	Management Analysts	8	82	1	4
13-1140	Compensation, Benefits, and Job Analysis Specialists	10	14	2	7
13-1150	Training and Development Specialists	9	17	1	6
13-1160	Market Research Analysts and Marketing Specialists	16	65	6	6
13-1199	Business Operations Specialists, All Other	14	27	1	7
13-2000 Financial Specialists					
13-2011a	Accountants	72	154	2	6
13-2011b	Auditors	5	19	0	6
13-2030	Budget Analysts	3	3	0	4
13-2051	Financial Analysts	25	57	2	6
15-1200 Computer Occupations					
15-1121	Computer Systems Analysts	20	58	0	6
15-1122	Information Security Analysts	5	8	0	7
15-1131	Computer Programmers	10	80	10	7
15-1132	Software Developers, Applications	5	17	0	10
15-1134	Web Developers	3	19	0	6
15-1141	Database Administrators	12	13	0	5
15-1142	Network and Computer Systems Administrators	24	31	0	6
15-1143	Computer Network Architects	5	7	0	6
15-1151	Computer User Support Specialists	22	104	8	5
15-1152	Computer Network Support Specialists	13	17	0	5
15-1199	Computer Occupations, All Other	11	91	4	5

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Appendix Table IA: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations					
SOC Code and Title		Number Companies Reporting	Number Jobs	Current Openings	Difficulty of Filling (1-10)
17-2000 Engineers					
17-2010	Aerospace Engineers	5	18	0	8
17-2040	Chemical Engineers	7	20	2	5
17-2050	Civil Engineers	3	2	1	8
17-2071	Electrical Engineers	14	70	6	7
17-2110	Industrial Engineers, Including Health and Safety	36	221	7	7
17-2140	Mechanical Engineers	25	168	11	7
17-2199	Engineers, All Other	39	195	2	6
17-3010	Drafters	15	58	1	5
17-3020	Engineering Technologists and Technicians, Except Drafters	27	81	5	6
19-0000 Life, Physical, and Social Science Occupations					
19-2030	Chemists and Materials Scientists	5	70	10	6
19-4030	Chemical Technicians	8	23	1	7
19-4099	Quality Control Analysts	44	205	6	5
19-5010	Occupational Health and Safety Specialists and Technicians	23	32	6	6
27-0000 Arts, Design, Entertainment, Sports, and Media Occupations					
27-1021	Commercial and Industrial Designers	5	17	1	7
27-1024	Graphic Designers	11	53	1	6
27-3040	Writers and Editors	3	79	1	5
29-0000 Healthcare Practitioners and Technical Occupations					
29-1140	Registered Nurses	3	3	0	7
29-9011	Occupational Health and Safety Specialists	3	9	0	9
33-0000 Protective Service Occupations					
33-9032	Security Guards	10	55	1	5
37-1000 Supervisors of Building and Grounds Cleaning and Maintenance Workers					
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	12	27	2	5
37-1012	First-Line Supervisors of Landscaping and Groundskeeping Workers	3	4	0	3
37-2010	Building Cleaning Workers	30	91	3	4
37-3010	Grounds Maintenance Workers	15	60	0	4
41-0000 Sales and Related Occupations					
41-1010	First-Line Supervisors of Sales Workers	13	53	0	5
41-4012	Sales Representatives, Wholesale and Manufacturing	28	388	14	5
41-9099	Sales and Related , All Other	21	164	6	6

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Appendix Table IB: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations					
SOC Code and Title		Number Companies Reporting	Number Jobs	Current Openings	Difficulty of Filling (1-10)
43-0000 Office and Administrative Support Occupations					
43-1000	First-Line Supervisors of Office and Administrative Support Workers	16	155	0	5
43-2011	Switchboard Operators	11	12	0	3
43-3011	Bill and Account Collectors	10	26	0	5
43-3020	Billing and Posting Clerks	10	23	1	5
43-3030	Bookkeeping, Accounting, and Auditing Clerks	38	100	3	5
43-3050	Payroll and Timekeeping Clerks	27	32	5	5
43-3060	Procurement Clerks	13	27	0	3
43-4050	Customer Service Representatives	42	250	8	5
43-4070	File Clerks	3	5	0	3
43-4150	Order Clerks	10	58	0	3
43-4160	Human Resource Assistants (Except Payroll and Timekeeping)	26	36	0	6
43-4171	Receptionists and Information Clerks	22	55	1	3
43-5010	Cargo and Freight Agents	5	6	0	3
43-5032	Dispatchers (Except Police, Fire, and Ambulance)	3	9	1	4
43-5061	Production, Planning, and Expediting Clerks	39	129	6	6
43-5071	Shipping, Receiving, and Inventory Clerks	83	489	21	4
43-6011	Executive Secretaries and Administrative Assistants	26	43	2	5
43-6014	Secretaries and Administrative Assistants (Except Executive)	31	100	1	4
43-9020	Data Entry and Information Processing Workers	4	8	0	2
43-9060	Office Clerks, General	13	75	8	6
47-1000 Construction and Extraction Occupations					
47-2030	Carpenters	3	6	1	7
47-2060	Construction Laborers	3	171	10	3
47-2110	Electricians	16	80	8	6
47-2140	Painters and Paperhangers	5	13	1	4
47-2210	Sheet Metal Workers	4	92	2	5
47-2220	Structural Iron and Steel Workers	4	79	3	7
49-0000 Installation, Maintenance, and Repair Workers					
49-1010	First-Line Supervisors of Mechanics, Installers, and Repairers	42	102	1	7
49-2000	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	29	210	9	7
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	10	220	5	6
49-9040	Industrial Machinery Installation, Repair, and Maintenance	42	634	12	7
49-9070	Maintenance and Repair Workers, General	56	777	18	7

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Appendix Table IC: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations					
SOC Code and Title		Number Companies Reporting	Number Jobs	Current Openings	Difficulty of Filling (1-10)
51-0000 Production Occupations					
51-1010	First-Line Supervisors of Production and Operating Workers	108	862	17	6
51-2000	Assemblers and Fabricators	61	4,196	196	5
51-3000	Food Processing Workers	5	447	43	7
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	26	726	16	5
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	10	171	3	6
51-4040	Machinists	36	419	15	7
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	4	67	2	6
51-4060	Model Makers and Patternmakers, Metal and Plastic	9	71	2	7
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	14	250	8	6
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	11	13	0	10
51-4090	Miscellaneous Metal Workers and Plastic Workers	4	35	8	7
51-4110	Tool and Die Makers	31	228	6	8
51-4120	Welding, Soldering, and Brazing Workers	42	714	69	6
51-6030	Sewing Machine Operators	5	96	6	8
51-6091	Extruding and Forming Machine Setters, Operators and Tenders, Synthetic and Glass Fibers	6	124	4	6
51-6093	Upholsterers	5	130	15	7
51-7090	Woodworkers, All Other	4	27	3	7
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	3	2	0	4
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	6	175	3	5
51-9030	Cutting Workers	7	127	12	6
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	7	88	2	2
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	5	36	0	5
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	41	699	22	5
51-9110	Packaging and Filling Machine Operators and Tenders	11	441	27	5
51-9120	Painting Workers	13	62	3	4
51-9162	Computer Numerically Controlled Tool Operators and Programmers	6	60	0	7
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	4	28	0	4
51-9196	Tenders	4	185	4	6
51-9198	Helpers--Production Workers	14	757	197	5
51-9199	Production Workers, All Other	38	5,018	113	4
53-0000 Transportation and Material Moving Occupations					
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	25	112	2	6
53-3032	Heavy and Tractor-Trailer Truck Drivers	20	181	16	5
53-3033	Light Truck Drivers	8	34	0	5
53-7050	Industrial Truck and Tractor Operators	13	119	5	6
53-7060	Laborers and Material Movers	38	2,150	15	5
53-7064	Packers and Packagers	16	272	24	5
53-7120	Tank Car, Truck, and Ship Loaders	5	83	10	3
53-7199	Material Moving Workers, All Other	21	731	7	4

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Appendix Table II: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations							
		Minimum Required Educational Level				Licensing Requirement	
		High School or Less	Associate's Degree	Bachelor's Degree	Graduate Degree	No	Yes
SOC Code and Title							
11-0000	Management Occupations						
11-1011	Chief Executives	22.9%	4.3%	60.0%	12.9%	87.5%	12.5%
11-1021	General and Operations Managers	25.2%	7.0%	66.1%	1.7%	87.5%	12.5%
11-2021	Marketing Managers	16.7%	13.3%	70.0%		90.9%	9.1%
11-2022	Sales Managers	23.8%	4.8%	71.4%		87.2%	12.8%
11-3012	Administrative Services Managers	37.5%	34.4%	25.0%	3.1%	90.9%	9.1%
11-3013	Facilities Managers	34.9%	4.7%	60.5%		77.8%	22.2%
11-3021	Computer and Information Systems Managers	10.8%	5.4%	83.8%		63.3%	36.7%
11-3030	Financial Managers	6.1%	3.0%	83.3%	7.6%	72.9%	27.1%
11-3050	Industrial Production Managers	57.9%	15.8%	26.3%		97.6%	2.4%
11-3060	Purchasing Managers	37.8%	15.6%	46.7%		87.9%	12.1%
11-3070	Transportation, Storage, and Distribution Managers	54.0%	6.0%	40.0%		91.9%	8.1%
11-3120	Human Resources Managers	20.2%	7.9%	68.5%	3.4%	73.8%	26.2%
11-3131	Training and Development Managers		16.7%	83.3%		100.0%	
11-9020	Construction Managers	100.0%				50.0%	50.0%
11-9040	Architectural and Engineering Managers	10.0%	6.7%	80.0%	3.3%	72.7%	27.3%
11-9161	Emergency Management Directors			100.0%		33.3%	66.7%
11-9199	Managers, All Other	36.8%	8.8%	54.4%		88.2%	11.8%
13-1000	Business Operations Specialists						
13-1020	Buyers and Purchasing Agents	51.2%	14.0%	34.9%		100.0%	
13-1031	Claims Adjusters, Examiners, and Investigators	50.0%		50.0%		100.0%	
13-1040	Compliance Officers			100.0%		50.0%	50.0%
13-1070	Human Resources Workers	44.1%	15.3%	40.7%		92.9%	7.1%
13-1080	Logisticians and Project Management Specialists	52.6%	10.5%	36.8%		100.0%	
13-1111	Management Analysts	57.1%		42.9%		100.0%	
13-1140	Compensation, Benefits, and Job Analysis Specialists	22.2%	11.1%	66.7%		100.0%	
13-1150	Training and Development Specialists	66.7%		33.3%		83.3%	16.7%
13-1160	Market Research Analysts and Marketing Specialists	40.0%		60.0%		83.3%	16.7%
13-1199	Business Operations Specialists, All Other	20.0%	10.0%	70.0%		100.0%	
13-2000	Financial Specialists						
13-2011a	Accountants	15.4%	11.5%	73.1%		90.0%	10.0%
13-2011b	Auditors	25.0%		75.0%		100.0%	
13-2030	Budget Analysts	50.0%		50.0%		100.0%	
13-2051	Financial Analysts	17.6%		82.4%		87.5%	12.5%
15-1200	Computer Occupations						
15-1121	Computer Systems Analysts	45.5%	9.1%	45.5%		80.0%	20.0%
15-1122	Information Security Analysts			100.0%		100.0%	
15-1131	Computer Programmers		14.3%	85.7%		25.0%	75.0%
15-1132	Software Developers, Applications			100.0%		66.7%	33.3%
15-1134	Web Developers			100.0%		100.0%	
15-1141	Database Administrators		66.7%	33.3%		100.0%	
15-1142	Network and Computer Systems Administrators	23.5%	11.8%	64.7%		57.1%	42.9%
15-1143	Computer Network Architects		50.0%	50.0%		75.0%	25.0%
15-1151	Computer User Support Specialists	54.5%	9.1%	36.4%		71.4%	28.6%
15-1152	Computer Network Support Specialists	60.0%	10.0%	30.0%		66.7%	33.3%
15-1199	Computer Occupations, All Other	44.4%	22.2%	33.3%		71.4%	28.6%

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Appendix Table IIA: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations						
SOC Code and Title	Minimum Required Educational Level				Licensing Requirement	
	High School or Less	Associate's Degree	Bachelor's Degree	Graduate Degree	No	Yes
17-2000 Engineers						
17-2010 Aerospace Engineers			100.0%		50.0%	50.0%
17-2040 Chemical Engineers			100.0%		75.0%	25.0%
17-2050 Civil Engineers			100.0%		100.0%	
17-2071 Electrical Engineers	8.3%	8.3%	83.3%		50.0%	50.0%
17-2110 Industrial Engineers, Including Health and Safety	12.0%	16.0%	72.0%		91.7%	8.3%
17-2140 Mechanical Engineers			93.8%	6.3%	66.7%	33.3%
17-2199 Engineers, All Other	13.0%	8.7%	78.3%		100.0%	
17-3010 Drafters	46.2%	23.1%	30.8%		33.3%	66.7%
17-3020 Engineering Technologists and Technicians, Except Drafters	43.8%	25.0%	31.3%		55.6%	44.4%
19-0000 Life, Physical, and Social Science Occupations						
19-2030 Chemists and Materials Scientists			100.0%		100.0%	
19-4030 Chemical Technicians	100.0%				50.0%	50.0%
19-4099 Quality Control Analysts	66.7%	7.4%	25.9%		77.8%	22.2%
19-5010 Occupational Health and Safety Specialists and Technicians	37.5%	18.8%	43.8%		60.0%	40.0%
27-0000 Arts, Design, Entertainment, Sports, and Media Occupations						
27-1021 Commercial and Industrial Designers	50.0%		50.0%			
27-1024 Graphic Designers	20.0%	40.0%	40.0%		100.0%	
27-3040 Writers and Editors			100.0%		100.0%	
29-0000 Healthcare Practitioners and Technical Occupations						
29-1140 Registered Nurses			100.0%			100.0%
29-9011 Occupational Health and Safety Specialists	33.3%		66.7%			
33-0000 Protective Service Occupations						
33-9032 Security Guards	100.0%				71.4%	28.6%
37-1000 Supervisors of Building and Grounds Cleaning and Maintenance Workers						
37-1011 First-Line Supervisors of Housekeeping and Janitorial Workers	87.5%		12.5%		100.0%	
37-1012 First-Line Supervisors of Landscaping and Groundskeeping Workers	66.7%		33.3%		100.0%	
37-2010 Building Cleaning Workers	100.0%				100.0%	
37-3010 Grounds Maintenance Workers	100.0%				90.9%	9.1%
41-0000 Sales and Related Occupations						
41-1010 First-Line Supervisors of Sales Workers	62.5%		37.5%		100.0%	
41-4012 Sales Representatives, Wholesale and Manufacturing	68.4%		31.6%		100.0%	
41-9099 Sales and Related, All Other	72.7%		27.3%		88.9%	11.1%

2019 Wage and Benefits Survey
MIDDLE TENNESSEE REGION SUMMARY TABLES

Appendix Table IIB: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations							
		Minimum Required Educational Level				Licensing Requirement	
		High School or Less	Associate's Degree	Bachelor's Degree	Graduate Degree	No	Yes
SOC Code and Title							
43-0000	Office and Administrative Support Occupations						
43-1000	First-Line Supervisors of Office and Administrative Support Workers	75.0%	8.3%	16.7%		100.0%	
43-2011	Switchboard Operators	100.0%				100.0%	
43-3011	Bill and Account Collectors	100.0%				100.0%	
43-3020	Billing and Posting Clerks	83.3%	16.7%			100.0%	
43-3030	Bookkeeping, Accounting, and Auditing Clerks	80.0%	8.0%	12.0%		94.7%	5.3%
43-3050	Payroll and Timekeeping Clerks	82.4%	5.9%	11.8%		100.0%	
43-3060	Procurement Clerks	88.9%		11.1%		83.3%	16.7%
43-4050	Customer Service Representatives	100.0%				100.0%	
43-4070	File Clerks	100.0%				100.0%	
43-4150	Order Clerks	100.0%				100.0%	
43-4160	Human Resource Assistants (Except Payroll and Timekeeping)	54.5%	27.3%	18.2%		100.0%	
43-4171	Receptionists and Information Clerks	88.2%	11.8%			100.0%	
43-5010	Cargo and Freight Agents	100.0%				100.0%	
43-5032	Dispatchers (Except Police, Fire, and Ambulance)	100.0%				50.0%	50.0%
43-5061	Production, Planning, and Expediting Clerks	81.5%	14.8%	3.7%		94.4%	5.6%
43-5071	Shipping, Receiving, and Inventory Clerks	96.8%	1.6%	1.6%		93.3%	6.7%
43-6011	Executive Secretaries and Administrative Assistants	76.9%	7.7%	15.4%		91.7%	8.3%
43-6014	Secretaries and Administrative Assistants (Except Executive)	88.9%	11.1%			100.0%	
43-9020	Data Entry and Information Processing Workers	66.7%		33.3%		100.0%	
43-9060	Office Clerks, General	100.0%				100.0%	
47-1000	Construction and Extraction Occupations						
47-2030	Carpenters	100.0%				100.0%	
47-2060	Construction Laborers	100.0%				100.0%	
47-2110	Electricians	90.9%	9.1%			10.0%	90.0%
47-2140	Painters and Paperhangers	100.0%				100.0%	
47-2210	Sheet Metal Workers	100.0%				33.3%	66.7%
47-2220	Structural Iron and Steel Workers	100.0%				100.0%	
49-0000	Installation, Maintenance, and Repair Workers						
49-1010	First-Line Supervisors of Mechanics, Installers, and Repairers	83.9%	3.2%	12.9%		76.2%	23.8%
49-2000	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	88.9%	11.1%				
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	100.0%				40.0%	60.0%
49-9040	Industrial Machinery Installation, Repair, and Maintenance	90.3%	9.7%			61.5%	38.5%
49-9070	Maintenance and Repair Workers, General	95.2%	4.8%			61.8%	38.2%

2019 Wage and Benefits Survey
MIDDLE TENNESSEE REGION SUMMARY TABLES

Appendix Table IIC: Wage and Benefits Survey 2019: Characteristics of the Covered Occupations						
SOC Code and Title		Minimum Required Educational Level				Licensing Requirement
		High School or Less	Associate's Degree	Bachelor's Degree	Graduate Degree	No Yes
51-0000 Production Occupations						
51-1010	First-Line Supervisors of Production and Operating Workers	81.9%	7.2%	10.8%		87.1% 12.9%
51-2000	Assemblers and Fabricators	100.0%				90.5% 9.5%
51-3000	Food Processing Workers	100.0%				80.0% 20.0%
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	100.0%				100.0%
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	85.7%	14.3%			85.7% 14.3%
51-4040	Machinists	82.1%	17.9%			64.0% 36.0%
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	100.0%				100.0%
51-4060	Model Makers and Patternmakers, Metal and Plastic	100.0%				100.0%
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	100.0%				100.0%
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	100.0%				
51-4090	Miscellaneous Metal Workers and Plastic Workers	100.0%				100.0%
51-4110	Tool and Die Makers	92.9%	7.1%			54.5% 45.5%
51-4120	Welding, Soldering, and Brazing Workers	95.2%	4.8%			57.1% 42.9%
51-6030	Sewing Machine Operators	100.0%				100.0%
51-6091	Extruding and Forming Machine Setters, Operators and Tenders, Synthetic and Glass Fibers	100.0%				100.0%
51-6093	Upholsterers	100.0%				100.0%
51-7090	Woodworkers, All Other	100.0%				100.0%
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	100.0%				100.0%
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	100.0%				100.0%
51-9030	Cutting Workers	100.0%				100.0%
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	100.0%				100.0%
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	100.0%				100.0%
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	91.7%	4.2%	4.2%		93.8% 6.3%
51-9110	Packaging and Filling Machine Operators and Tenders	100.0%				100.0%
51-9120	Painting Workers	100.0%				100.0%
51-9162	Computer Numerically Controlled Tool Operators and Programmers	60.0%	40.0%			50.0% 50.0%
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	100.0%				100.0%
51-9196	Paper Goods Machine Setters, Operators, and Tenders	100.0%				100.0%
51-9198	Helpers--Production Workers	100.0%				100.0%
51-9199	Production Workers, All Other	100.0%				100.0%
53-0000 Transportation and Material Moving Occupations						
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	89.5%	10.5%			100.0%
53-3032	Heavy and Tractor-Trailer Truck Drivers	100.0%				8.3% 91.7%
53-3033	Light Truck Drivers	100.0%				33.3% 66.7%
53-7050	Industrial Truck and Tractor Operators	100.0%				40.0% 60.0%
53-7060	Laborers and Material Movers	100.0%				86.4% 13.6%
53-7064	Packers and Packagers	100.0%				100.0%
53-7120	Tank Car, Truck, and Ship Loaders	100.0%				100.0%
53-7199	Material Moving Workers, All Other	100.0%				72.7% 27.3%

2019 Wage and Benefits Survey
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Appendix Table III: Wage and Benefits Survey 2019: Average Hourly Wages (Unweighted) for the Covered Occupations									
SOC Code and Title		Trainee Level (Hourly)		Minimum Hourly in Range		Maximum Hourly in Range		Current Wages	
		Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median
11-0000	Management Occupations								
11-1011	Chief Executives	\$65.8	\$65.0	\$79.9	\$71.1	\$101.6	\$86.7	\$81.5	\$79.8
11-1021	General and Operations Managers	\$40.9	\$41.8	\$42.6	\$40.5	\$63.6	\$62.8	\$52.9	\$50.0
11-2021	Marketing Managers	\$29.3	\$25.0	\$33.7	\$32.3	\$44.8	\$49.2	\$40.7	\$41.1
11-2022	Sales Managers	\$37.6	\$35.0	\$35.9	\$36.8	\$57.4	\$56.0	\$51.1	\$48.7
11-3012	Administrative Services Managers	\$21.3	\$14.5	\$24.7	\$20.0	\$35.8	\$35.0	\$30.3	\$26.3
11-3013	Facilities Managers	\$36.5	\$38.5	\$34.6	\$36.0	\$49.1	\$46.0	\$41.7	\$41.5
11-3021	Computer and Information Systems Managers	\$28.4	\$29.2	\$33.8	\$31.9	\$48.2	\$44.8	\$41.9	\$40.1
11-3030	Financial Managers	\$35.3	\$35.3	\$34.1	\$35.0	\$53.0	\$50.5	\$46.1	\$46.3
11-3050	Industrial Production Managers	\$30.8	\$28.4	\$34.1	\$32.7	\$45.5	\$44.1	\$39.6	\$40.0
11-3060	Purchasing Managers	\$24.1	\$20.0	\$29.0	\$26.5	\$41.2	\$40.0	\$35.2	\$38.3
11-3070	Transportation, Storage, and Distribution Managers	\$33.8	\$36.1	\$30.2	\$31.3	\$39.5	\$38.3	\$33.4	\$30.5
11-3120	Human Resources Managers	\$32.8	\$35.0	\$35.2	\$35.0	\$47.6	\$45.7	\$41.2	\$41.3
11-3131	Training and Development Managers	N/A	N/A	\$30.5	\$32.6	\$43.7	\$40.2	\$36.6	\$35.9
11-9020	Construction Managers	N/A	N/A	\$26.3	\$25.0	\$34.8	\$31.7	\$31.1	\$30.0
11-9040	Architectural and Engineering Managers	\$42.9	\$44.6	\$42.4	\$40.9	\$57.9	\$56.9	\$51.2	\$49.9
11-9161	Emergency Management Directors	N/A	N/A	\$24.4	\$14.5	\$40.7	\$36.6	\$34.6	\$28.0
11-9199	Managers, All Other	\$32.2	\$33.1	\$34.2	\$34.1	\$53.6	\$51.7	\$42.8	\$42.0
13-1000	Business Operations Specialists								
13-1020	Buyers and Purchasing Agents	\$23.5	\$24.9	\$20.9	\$20.0	\$30.8	\$30.0	\$25.8	\$24.9
13-1031	Claims Adjusters, Examiners, and Investigators	N/A	N/A	N/A	N/A	N/A	N/A	\$32.8	\$27.0
13-1040	Compliance Officers	N/A	N/A	N/A	N/A	N/A	N/A	\$46.1	\$46.5
13-1070	Human Resources Workers	\$20.3	\$20.0	\$24.2	\$21.5	\$30.9	\$28.8	\$24.8	\$24.0
13-1080	Logisticians and Project Management Specialists	\$30.5	\$21.6	\$24.7	\$23.0	\$38.7	\$33.0	\$32.7	\$30.0
13-1111	Management Analysts	N/A	N/A	\$22.9	\$20.1	\$39.2	\$37.7	\$28.2	\$28.9
13-1140	Compensation, Benefits, and Job Analysis Specialists	N/A	N/A	\$24.4	\$25.0	\$43.5	\$39.7	\$37.2	\$35.4
13-1150	Training and Development Specialists	N/A	N/A	\$22.6	\$22.7	\$29.4	\$29.7	\$24.3	\$25.0
13-1160	Market Research Analysts and Marketing Specialists	N/A	N/A	\$20.6	\$18.0	\$29.2	\$26.1	\$25.0	\$21.6
13-1199	Business Operations Specialists, All Other	\$27.7	\$25.0	\$28.7	\$28.5	\$38.6	\$38.8	\$36.4	\$32.9
13-2000	Financial Specialists								
13-2011a	Accountants	\$22.7	\$20.0	\$24.6	\$23.4	\$33.9	\$31.6	\$29.7	\$29.5
13-2011b	Auditors	N/A	N/A	\$25.3	\$24.0	\$30.3	\$30.6	\$25.9	\$26.9
13-2030	Budget Analysts	N/A	N/A	N/A	N/A	N/A	N/A	\$25.8	\$18.3
13-2051	Financial Analysts	N/A	N/A	\$24.3	\$24.8	\$36.7	\$34.7	\$33.5	\$34.5
15-1200	Computer Occupations								
15-1121	Computer Systems Analysts	\$19.9	\$19.2	\$24.8	\$25.5	\$35.7	\$37.0	\$30.4	\$30.9
15-1122	Information Security Analysts	N/A	N/A	\$27.4	\$28.9	\$39.1	\$41.8	\$31.7	\$30.9
15-1131	Computer Programmers	N/A	N/A	\$28.4	\$29.5	\$43.2	\$48.2	\$40.5	\$37.2
15-1132	Software Developers, Applications	N/A	N/A	\$38.9	\$40.8	\$49.4	\$47.3	\$40.9	\$40.8
15-1134	Web Developers	N/A	N/A	N/A	N/A	N/A	N/A	\$25.4	\$24.0
15-1141	Database Administrators	N/A	N/A	\$36.4	\$38.1	\$50.3	\$46.9	\$43.6	\$42.4
15-1142	Network and Computer Systems Administrators	\$27.3	\$29.9	\$28.1	\$26.6	\$35.7	\$35.9	\$30.7	\$30.5
15-1143	Computer Network Architects	N/A	N/A	\$34.7	\$31.3	\$41.4	\$42.6	\$46.6	\$42.6
15-1151	Computer User Support Specialists	N/A	N/A	\$19.0	\$18.7	\$26.4	\$27.2	\$23.6	\$22.3
15-1152	Computer Network Support Specialists	N/A	N/A	\$24.6	\$25.1	\$29.3	\$26.7	\$25.8	\$25.4
15-1199	Computer Occupations, All Other	\$14.0	\$15.0	\$25.1	\$20.0	\$34.2	\$30.0	\$26.7	\$22.1

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Appendix Table IIIA: Wage and Benefits Survey 2019: Average Hourly Wages (Unweighted) for the Covered Occupations									
SOC Code and Title		Trainee Level (Hourly)		Minimum Hourly in Range		Maximum Hourly in Range		Current Wages	
		Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median
17-2000	Engineers								
17-2010	Aerospace Engineers	N/A	N/A	N/A	N/A	N/A	N/A	\$52.7	\$51.6
17-2040	Chemical Engineers	N/A	N/A	\$31.8	\$32.0	\$41.5	\$39.4	\$39.7	\$36.8
17-2050	Civil Engineers	N/A	N/A	\$33.3	\$30.0	\$38.2	\$38.0	\$37.8	\$37.8
17-2071	Electrical Engineers	\$27.9	\$32.0	\$28.6	\$31.9	\$43.3	\$42.0	\$38.7	\$40.4
17-2110	Industrial Engineers, Including Health and Safety	\$29.0	\$31.0	\$30.3	\$27.9	\$44.2	\$41.5	\$38.9	\$36.8
17-2140	Mechanical Engineers	N/A	N/A	\$26.6	\$26.4	\$40.9	\$40.0	\$39.1	\$38.5
17-2199	Engineers, All Other	\$30.8	\$30.7	\$29.2	\$28.9	\$47.6	\$48.9	\$37.0	\$39.2
17-3010	Drafters	\$16.7	\$15.0	\$20.8	\$18.3	\$31.7	\$30.4	\$24.1	\$23.5
17-3020	Engineering Technologists and Technicians, Except Drafters	\$19.9	\$17.5	\$22.8	\$21.4	\$34.9	\$35.0	\$31.2	\$28.5
19-0000	Life, Physical, and Social Science Occupations								
19-2030	Chemists and Materials Scientists	N/A	N/A	\$21.4	\$20.3	\$29.2	\$25.9	\$32.3	\$26.4
19-4030	Chemical Technicians	N/A	N/A	\$18.3	\$14.1	\$25.9	\$18.7	\$22.1	\$17.1
19-4099	Quality Control Analysts	\$22.8	\$19.0	\$21.1	\$17.5	\$26.2	\$22.2	\$23.6	\$20.8
19-5010	Occupational Health and Safety Specialists and Technicians	\$26.6	\$21.0	\$24.0	\$22.0	\$32.8	\$30.0	\$27.2	\$26.0
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations								
27-1021	Commercial and Industrial Designers	N/A	N/A	\$22.4	\$24.6	\$31.0	\$28.4	\$26.1	\$26.3
27-1024	Graphic Designers	N/A	N/A	\$19.4	\$20.2	\$26.8	\$29.1	\$23.3	\$23.8
27-3040	Writers and Editors	N/A	N/A	\$22.4	\$22.9	\$54.8	\$38.0	\$35.8	\$31.0
29-0000	Healthcare Practitioners and Technical Occupations								
29-1140	Registered Nurses	N/A	N/A	N/A	N/A	N/A	N/A	\$36.7	\$38.0
29-9011	Occupational Health and Safety Specialists	N/A	N/A	\$22.0	\$21.7	N/A	N/A	\$25.7	\$26.3
33-0000	Protective Service Occupations								
33-9032	Security Guards	N/A	N/A	\$12.5	\$12.2	\$18.3	\$18.3	\$14.8	\$16.0
37-1000	Supervisors of Building and Grounds Cleaning and Maintenance Workers								
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	N/A	N/A	\$19.3	\$20.0	\$27.3	\$23.5	\$20.8	\$16.5
37-1012	First-Line Supervisors of Landscaping and Groundskeeping Workers	N/A	N/A	N/A	N/A	N/A	N/A	\$30.9	\$34.0
37-2010	Building Cleaning Workers	\$11.1	\$10.6	\$12.5	\$12.5	\$15.7	\$14.5	\$14.2	\$14.0
37-3010	Grounds Maintenance Workers	\$14.3	\$14.5	\$16.2	\$15.0	\$19.2	\$18.2	\$17.6	\$16.0
41-0000	Sales and Related Occupations								
41-1010	First-Line Supervisors of Sales Workers	N/A	N/A	\$30.5	\$28.0	\$40.8	\$36.6	\$35.2	\$34.3
41-4012	Sales Representatives, Wholesale and Manufacturing	\$18.8	\$20.0	\$23.3	\$23.9	\$45.8	\$40.6	\$29.9	\$28.0
41-9099	Sales and Related , All Other	\$29.7	\$30.0	\$26.2	\$25.5	\$48.0	\$48.6	\$32.8	\$30.0

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Appendix Table IIIB: Wage and Benefits Survey 2019: Average Hourly Wages (Unweighted) for the Covered Occupations								
SOC Code and Title	Trainee Level (Hourly)		Minimum Hourly in Range		Maximum Hourly in Range		Current Wages	
	Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median
43-0000 Office and Administrative Support Occupations								
43-1000 First-Line Supervisors of Office and Administrative Support Workers	N/A	N/A	\$23.0	\$22.3	\$34.8	\$35.9	\$29.6	\$29.2
43-2011 Switchboard Operators	\$13.4	\$13.8	\$14.7	\$14.3	\$18.2	\$19.5	\$15.0	\$15.0
43-3011 Bill and Account Collectors	N/A	N/A	\$15.5	\$15.7	\$23.2	\$24.0	\$19.3	\$20.0
43-3020 Billing and Posting Clerks	N/A	N/A	\$15.5	\$15.8	\$20.0	\$19.6	\$16.6	\$17.1
43-3030 Bookkeeping, Accounting, and Auditing Clerks	\$17.0	\$16.5	\$16.0	\$15.0	\$21.9	\$21.7	\$20.5	\$19.0
43-3050 Payroll and Timekeeping Clerks	\$19.4	\$20.1	\$18.7	\$18.6	\$23.9	\$23.9	\$20.9	\$20.6
43-3060 Procurement Clerks	N/A	N/A	\$16.9	\$14.0	\$20.1	\$17.9	\$18.1	\$16.0
43-4050 Customer Service Representatives	\$16.0	\$14.0	\$16.5	\$16.0	\$22.6	\$22.5	\$19.1	\$19.0
43-4070 File Clerks	N/A	N/A	N/A	N/A	N/A	N/A	\$17.3	\$18.0
43-4150 Order Clerks	N/A	N/A	\$14.9	\$14.5	\$18.9	\$18.4	\$16.2	\$16.0
43-4160 Human Resource Assistants (Except Payroll and Timekeeping)	\$15.7	\$15.0	\$17.1	\$16.8	\$25.4	\$24.7	\$20.6	\$19.7
43-4171 Receptionists and Information Clerks	\$13.4	\$15.0	\$14.5	\$15.0	\$18.1	\$17.7	\$16.1	\$15.5
43-5010 Cargo and Freight Agents	N/A	N/A	\$18.1	\$16.8	\$21.1	\$20.0	\$20.3	\$19.0
43-5032 Dispatchers (Except Police, Fire, and Ambulance)	N/A	N/A	\$18.8	\$18.0	\$23.1	\$25.6	\$20.9	\$20.9
43-5061 Production, Planning, and Expediting Clerks	\$18.5	\$20.0	\$18.8	\$19.4	\$29.9	\$29.5	\$24.3	\$24.4
43-5071 Shipping, Receiving, and Inventory Clerks	\$13.1	\$13.1	\$14.7	\$14.0	\$20.2	\$19.8	\$17.9	\$17.1
43-6011 Executive Secretaries and Administrative Assistants	\$16.0	\$16.0	\$20.8	\$19.8	\$27.4	\$26.2	\$26.9	\$26.7
43-6014 Secretaries and Administrative Assistants (Except Executive)	N/A	N/A	\$15.9	\$15.4	\$22.8	\$22.7	\$19.1	\$18.2
43-9020 Data Entry and Information Processing Workers	N/A	N/A	N/A	N/A	N/A	N/A	\$23.3	\$18.1
43-9060 Office Clerks, General	N/A	N/A	\$15.3	\$14.7	\$20.5	\$21.7	\$17.8	\$17.4
47-1000 Construction and Extraction Occupations								
47-2030 Carpenters	N/A	N/A	N/A	N/A	\$20.7	\$20.0	\$16.8	\$16.0
47-2060 Construction Laborers	N/A	N/A	\$14.6	\$11.3	\$17.8	\$14.3	\$16.3	\$12.0
47-2110 Electricians	N/A	N/A	\$20.2	\$18.7	\$28.6	\$28.0	\$25.6	\$24.9
47-2140 Painters and Paperhangers	N/A	N/A	\$14.2	\$14.5	\$18.5	\$19.5	\$16.1	\$16.7
47-2210 Sheet Metal Workers	N/A	N/A	N/A	N/A	N/A	N/A	\$21.7	\$20.0
47-2220 Structural Iron and Steel Workers	N/A	N/A	N/A	N/A	N/A	N/A	\$18.4	\$18.3
49-0000 Installation, Maintenance, and Repair Workers								
49-1010 First-Line Supervisors of Mechanics, Installers, and Repairers	\$21.4	\$22.3	\$28.2	\$27.9	\$38.0	\$38.0	\$33.4	\$32.7
49-2000 Electrical and Electronic Equipment Mechanics, Installers, and Repairers	\$21.3	\$20.9	\$21.0	\$20.0	\$28.5	\$28.5	\$26.1	\$25.6
49-3000 Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	N/A	N/A	\$17.5	\$16.5	\$27.9	\$29.9	\$22.0	\$22.0
49-9040 Industrial Machinery Installation, Repair, and Maintenance	\$17.4	\$18.0	\$18.9	\$18.0	\$29.8	\$30.0	\$24.9	\$25.5
49-9070 Maintenance and Repair Workers, General	\$17.2	\$16.5	\$17.8	\$17.7	\$25.6	\$26.5	\$22.7	\$22.3

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Appendix Table III-C: Wage and Benefits Survey 2019: Average Hourly Wages (Unweighted) for the Covered Occupations									
SOC Code and Title		Trainee Level (Hourly)		Minimum Hourly in Range		Maximum Hourly in Range		Current Wages	
		Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median	Average (Mean)	Median
51-0000 Production Occupations									
51-1010	First-Line Supervisors of Production and Operating Workers	\$20.1	\$20.0	\$22.2	\$21.6	\$31.5	\$31.0	\$26.7	\$26.2
51-2000	Assemblers and Fabricators	\$12.9	\$13.0	\$13.6	\$13.3	\$17.9	\$17.5	\$16.3	\$15.5
51-3000	Food Processing Workers	N/A	N/A	\$10.3	\$10.5	\$16.3	\$15.3	\$13.7	\$13.0
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	\$14.4	\$15.0	\$14.3	\$14.0	\$18.9	\$18.4	\$17.0	\$16.2
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	\$15.3	\$15.6	\$15.8	\$16.0	\$21.4	\$21.7	\$17.5	\$16.5
51-4040	Machinists	\$16.0	\$15.5	\$16.6	\$16.0	\$25.4	\$25.0	\$21.4	\$20.0
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	N/A	N/A	N/A	N/A	N/A	N/A	\$20.5	\$18.9
51-4060	Model Makers and Patternmakers, Metal and Plastic	\$15.0	\$16.0	\$14.9	\$14.5	\$21.6	\$18.9	\$18.8	\$18.4
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	\$14.2	\$14.5	\$16.0	\$16.6	\$20.2	\$20.0	\$19.0	\$18.3
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N/A	N/A	\$15.2	\$16.0	\$23.5	\$22.5	\$18.4	\$17.7
51-4090	Miscellaneous Metal Workers and Plastic Workers	N/A	N/A	\$15.3	\$12.4	\$20.3	\$20.3	\$18.2	\$16.0
51-4110	Tool and Die Makers	\$18.6	\$18.0	\$21.2	\$18.7	\$29.4	\$28.0	\$26.3	\$25.0
51-4120	Welding, Soldering, and Brazing Workers	\$14.6	\$15.0	\$15.5	\$14.5	\$21.5	\$19.0	\$18.2	\$17.0
51-6030	Sewing Machine Operators	\$11.5	\$11.6	\$12.9	\$13.0	\$16.0	\$15.5	\$13.8	\$13.7
51-6091	Extruding and Forming Machine Setters, Operators and Tenders, Synthetic and Glass Fibers	N/A	N/A	\$17.4	\$16.6	\$21.3	\$20.7	\$16.2	\$16.8
51-6093	Upholsterers	\$13.0	\$10.5	\$14.7	\$13.6	\$23.0	\$25.5	\$17.1	\$17.2
51-7090	Woodworkers, All Other	N/A	N/A	N/A	N/A	N/A	N/A	\$16.3	\$16.8
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	N/A	N/A	\$13.4	\$14.0	\$19.2	\$19.9	\$16.5	\$16.5
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	N/A	N/A	\$13.6	\$13.6	\$22.5	\$22.0	\$16.5	\$16.1
51-9030	Cutting Workers	N/A	N/A	\$12.6	\$12.5	\$19.7	\$20.4	\$15.9	\$15.7
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	\$12.0	\$12.0	\$13.4	\$13.5	\$19.0	\$20.3	\$17.2	\$16.4
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	N/A	N/A	\$15.1	\$13.0	\$19.6	\$20.2	\$15.0	\$16.0
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	\$13.9	\$14.0	\$14.8	\$14.9	\$22.5	\$22.1	\$18.4	\$17.5
51-9110	Packaging and Filling Machine Operators and Tenders	N/A	N/A	\$15.6	\$13.0	\$22.0	\$18.1	\$18.7	\$16.0
51-9120	Painting Workers	\$15.2	\$14.9	\$18.4	\$16.4	\$21.5	\$19.1	\$20.3	\$18.0
51-9162	Computer Numerically Controlled Tool Operators and Programmers	N/A	N/A	\$21.6	\$22.7	\$29.0	\$29.0	\$26.7	\$27.4
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	N/A	N/A	N/A	N/A	N/A	N/A	\$14.5	\$15.0
51-9196	Paper Goods Machine Setters, Operators, and Tenders	\$15.1	\$14.0	\$16.5	\$16.5	\$21.3	\$20.0	\$16.3	\$14.0
51-9198	Helpers--Production Workers	\$13.1	\$13.2	\$12.6	\$12.3	\$16.4	\$18.0	\$14.1	\$14.5
51-9199	Production Workers, All Other	\$12.3	\$12.7	\$14.6	\$14.3	\$19.7	\$17.7	\$16.4	\$15.9
53-0000 Transportation and Material Moving Occupations									
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	\$24.5	\$22.0	\$22.2	\$22.0	\$32.9	\$33.0	\$26.7	\$26.6
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$15.8	\$16.5	\$17.9	\$17.5	\$23.6	\$22.6	\$20.9	\$20.0
53-3033	Light Truck Drivers	N/A	N/A	\$16.5	\$15.9	\$22.4	\$22.0	\$20.8	\$20.7
53-7050	Industrial Truck and Tractor Operators	\$13.5	\$13.5	\$14.2	\$14.0	\$18.2	\$17.7	\$16.1	\$15.7
53-7060	Laborers and Material Movers	\$13.4	\$13.7	\$13.4	\$13.3	\$18.0	\$18.0	\$15.6	\$15.9
53-7064	Packers and Packagers	\$12.5	\$12.7	\$13.1	\$12.9	\$17.1	\$16.3	\$14.8	\$14.4
53-7120	Tank Car, Truck, and Ship Loaders	N/A	N/A	\$12.6	\$12.5	\$19.1	\$21.0	\$19.0	\$16.2
53-7199	Material Moving Workers, All Other	N/A	N/A	\$14.4	\$14.0	\$18.0	\$17.5	\$16.9	\$16.5

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Appendix Table IV: Wage and Benefits Survey 2019: Average Annualized Wages for the Covered Occupations					
SOC Code and Title		Weighted (by Job)		Unweighted (by Establishment)	
		Average (Mean)	Median	Average (Mean)	Median
11-0000 Management Occupations					
11-1011	Chief Executives	\$153,227	\$160,711	\$169,459	\$165,880
11-1021	General and Operations Managers	\$106,117	\$99,736	\$109,948	\$104,000
11-2021	Marketing Managers	\$96,838	\$94,994	\$84,575	\$85,405
11-2022	Sales Managers	\$99,598	\$110,240	\$106,255	\$101,358
11-3012	Administrative Services Managers	\$79,842	\$62,400	\$62,999	\$54,642
11-3013	Facilities Managers	\$89,055	\$88,826	\$86,708	\$86,289
11-3021	Computer and Information Systems Managers	\$88,035	\$83,918	\$87,128	\$83,366
11-3030	Financial Managers	\$100,080	\$102,461	\$95,946	\$96,283
11-3050	Industrial Production Managers	\$73,258	\$69,098	\$82,377	\$83,200
11-3060	Purchasing Managers	\$74,258	\$74,890	\$73,276	\$79,560
11-3070	Transportation, Storage, and Distribution Managers	\$74,103	\$68,640	\$69,434	\$63,440
11-3120	Human Resources Managers	\$86,499	\$85,363	\$85,757	\$85,800
11-3131	Training and Development Managers	\$76,221	\$76,814	\$76,148	\$74,703
11-9020	Construction Managers	\$64,910	\$51,480	\$64,621	\$62,400
11-9040	Architectural and Engineering Managers	\$111,806	\$110,802	\$106,513	\$103,854
11-9161	Emergency Management Directors	N/A	N/A	\$72,044	\$58,157
11-9199	Managers, All Other	\$89,500	\$86,549	\$89,007	\$87,360
13-1000 Business Operations Specialists					
13-1020	Buyers and Purchasing Agents	\$58,208	\$64,002	\$53,630	\$51,792
13-1031	Claims Adjusters, Examiners, and Investigators	\$60,683	N/A	\$68,325	\$56,098
13-1040	Compliance Officers	\$101,048	N/A	\$95,891	\$96,668
13-1070	Human Resources Workers	\$55,018	\$54,995	\$51,625	\$50,000
13-1080	Logisticians and Project Management Specialists	\$62,010	\$62,046	\$68,109	\$62,400
13-1111	Management Analysts	\$47,792	\$45,760	\$58,607	\$60,008
13-1140	Compensation, Benefits, and Job Analysis Specialists	\$70,327	\$64,522	\$77,308	\$73,645
13-1150	Training and Development Specialists	\$52,066	\$54,891	\$50,573	\$52,000
13-1160	Market Research Analysts and Marketing Specialists	\$54,742	\$56,160	\$51,981	\$45,011
13-1199	Business Operations Specialist, All Other	\$76,302	\$79,872	\$75,709	\$68,362
13-2000 Financial Specialists					
13-2011a	Accountants	\$63,701	\$62,400	\$61,864	\$61,339
13-2011b	Auditors	\$47,095	N/A	\$53,807	\$56,009
13-2030	Budget Analysts	\$53,573	N/A	\$53,573	\$38,000
13-2051	Financial Analysts	\$72,696	\$74,755	\$69,687	\$71,728
15-1200 Computer Occupations					
15-1121	Computer Systems Analysts	\$69,877	\$69,493	\$63,242	\$64,227
15-1122	Information Security Analysts	\$66,117	N/A	\$65,879	\$64,366
15-1131	Computer Programmers	\$83,252	\$84,698	\$84,311	\$77,346
15-1132	Software Developers, Applications	\$84,617	\$84,469	\$84,972	\$84,864
15-1134	Web Developers	\$52,418	N/A	\$52,846	\$49,920
15-1141	Database Administrators	\$75,783	\$70,533	\$90,732	\$88,161
15-1142	Network and Computer Systems Administrators	\$60,237	\$56,971	\$63,868	\$63,336
15-1143	Computer Network Architects	\$97,175	\$88,525	\$96,936	\$88,525
15-1151	Computer User Support Specialist	\$36,696	\$33,925	\$49,168	\$46,342
15-1152	Computer Network Support Specialists	\$53,922	\$52,894	\$53,600	\$52,897
15-1199	Computer Occupations, All Other	\$29,993	\$24,045	\$55,554	\$46,058

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Appendix Table IVA: Wage and Benefits Survey 2019: Average Annualized Wages for the Covered Occupations					
SOC Code and Title		Weighted (by Job)		Unweighted (by Establishment)	
		Average (Mean)	Median	Average (Mean)	Median
17-2000 Engineers					
17-2010	Aerospace Engineers	\$116,746	N/A	\$109,699	\$107,390
17-2040	Chemical Engineers	\$75,326	\$78,000	\$82,576	\$76,440
17-2050	Civil Engineers	N/A	N/A	\$78,572	\$78,572
17-2071	Electrical Engineers	\$86,799	\$93,600	\$80,529	\$84,126
17-2110	Industrial Engineers, Including Health and Safety	\$77,462	\$76,669	\$80,857	\$76,555
17-2140	Mechanical Engineers	\$84,818	\$89,440	\$81,314	\$80,020
17-2199	Engineers, All Other	\$80,165	\$82,430	\$77,023	\$81,591
17-3010	Drafters	\$54,257	\$56,264	\$50,156	\$48,880
17-3020	Engineering Technologists and Technicians, Except Drafters	\$61,134	\$58,594	\$64,833	\$59,280
19-0000 Life, Physical, and Social Science Occupations					
19-2030	Chemists and Materials Scientists	\$38,730	N/A	\$67,109	\$54,954
19-4030	Chemical Technicians	N/A	N/A	\$45,885	\$35,568
19-4099	Quality Control Analysts	\$40,249	\$37,440	\$49,016	\$43,306
19-5010	Occupational Health and Safety Specialists and Technicians	\$55,292	\$54,486	\$56,548	\$54,080
27-0000 Arts, Design, Entertainment, Sports, and Media Occupations					
27-1021	Commercial and Industrial Designers	\$59,997	\$54,642	\$54,231	\$54,642
27-1024	Graphic Designers	\$53,923	\$58,240	\$48,435	\$49,462
27-3040	Writers and Editors	N/A	N/A	\$74,415	\$64,480
29-0000 Healthcare Practitioners and Technical Occupations					
29-1140	Registered Nurses	\$76,246	\$79,082	\$76,246	\$79,082
29-9011	Occupational Health and Safety Specialists	\$53,824	N/A	\$53,492	\$54,787
33-0000 Protective Service Occupations					
33-9032	Security Guards	\$32,087	\$33,426	\$30,766	\$33,280
37-1000 Supervisors of Building and Grounds Cleaning and Maintenance Workers					
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	\$52,036	\$58,542	\$43,315	\$34,320
37-1012	First-Line Supervisors of Landscaping and Groundskeeping Workers	\$65,832	\$70,720	\$64,203	\$70,720
37-2010	Building Cleaning Workers	\$32,981	\$32,552	\$29,533	\$29,120
37-3010	Grounds Maintenance Workers	\$38,070	\$32,812	\$36,556	\$33,280
41-0000 Sales and Related Occupations					
41-1010	First-Line Supervisors of Sales Workers	\$77,057	\$76,274	\$73,123	\$71,323
41-4012	Sales Representatives, Wholesale and Manufacturing	\$62,682	\$62,712	\$62,232	\$58,240
41-9099	Sales and Related , All Other	\$79,367	\$83,408	\$68,133	\$62,400

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Appendix Table IVB: Wage and Benefits Survey 2019: Average Annualized Wages for the Covered Occupations					
SOC Code and Title		Weighted (by Job)		Unweighted (by Establishment)	
		Average (Mean)	Median	Average (Mean)	Median
43-0000 Office and Administrative Support Occupations					
43-1000	First-Line Supervisors of Office and Administrative Support Workers	\$57,632	\$54,954	\$61,575	\$60,632
43-2011	Switchboard Operators	\$31,460	\$30,680	\$31,295	\$31,200
43-3011	Bill and Account Collectors	\$45,187	\$47,840	\$40,147	\$41,527
43-3020	Billing and Posting Clerks	\$36,414	\$39,395	\$34,574	\$35,495
43-3030	Bookkeeping, Accounting, and Auditing Clerks	\$42,593	\$41,226	\$42,593	\$39,520
43-3050	Payroll and Timekeeping Clerks	\$43,655	\$44,138	\$43,552	\$42,900
43-3060	Procurement Clerks	\$34,350	\$31,866	\$37,684	\$33,280
43-4050	Customer Service Representatives	\$39,405	\$42,474	\$39,816	\$39,520
43-4070	File Clerks	\$38,272	N/A	\$36,053	\$37,440
43-4150	Order Clerks	\$27,604	N/A	\$33,701	\$33,301
43-4160	Human Resource Assistants (Except Payroll and Timekeeping)	\$45,891	\$45,739	\$42,860	\$40,893
43-4171	Receptionists and Information Clerks	\$37,272	\$40,040	\$33,449	\$32,240
43-5010	Cargo and Freight Agents	\$41,271	\$37,939	\$42,253	\$39,520
43-5032	Dispatchers (Except Police, Fire, and Ambulance)	\$45,543	\$43,555	\$43,521	\$43,555
43-5061	Production, Planning, and Expediting Clerks	\$54,891	\$56,160	\$50,440	\$50,669
43-5071	Shipping, Receiving, and Inventory Clerks	\$35,093	\$32,469	\$37,152	\$35,620
43-6011	Executive Secretaries and Administrative Assistants	\$51,586	\$46,426	\$55,946	\$55,550
43-6014	Secretaries and Administrative Assistants (Except Executive)	\$42,690	\$39,520	\$39,645	\$37,877
43-9020	Data Entry and Information Processing Workers	\$40,498	N/A	\$48,540	\$37,648
43-9060	Office Clerks, General	\$37,581	\$36,296	\$36,963	\$36,119
47-1000 Construction and Extraction Occupations					
47-2030	Carpenters	\$34,147	N/A	\$35,013	\$33,280
47-2060	Construction Laborers	\$25,882	N/A	\$33,897	\$24,960
47-2110	Electricians	\$47,543	\$38,022	\$53,274	\$51,792
47-2140	Painters and Paperhangers	\$32,466	\$34,653	\$33,446	\$34,642
47-2210	Sheet Metal Workers	\$35,642	N/A	\$45,094	\$41,600
47-2220	Structural Iron and Steel Workers	\$38,243	N/A	\$38,220	\$37,960
49-0000 Installation, Maintenance, and Repair Workers					
49-1010	First-Line Supervisors of Mechanics, Installers, and Repairers	\$73,586	\$74,880	\$69,562	\$67,995
49-2000	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	\$57,423	\$57,034	\$54,352	\$53,331
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	\$57,199	\$58,698	\$45,822	\$45,760
49-9040	Industrial Machinery Installation, Repair, and Maintenance	\$53,762	\$57,096	\$51,821	\$53,082
49-9070	Maintenance and Repair Workers, General	\$49,920	\$46,467	\$47,197	\$46,467

2019 Wage and Benefits Survey
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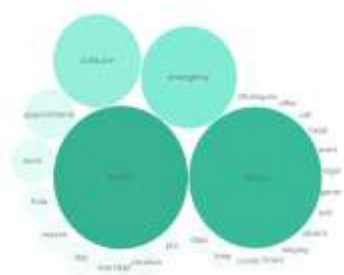
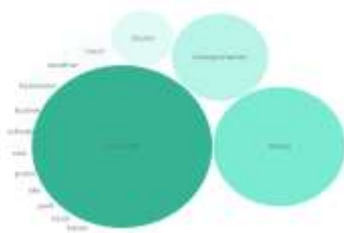
Appendix Table IVC: Wage and Benefits Survey 2019: Average Annualized Wages for the Covered Occupations					
SOC Code and Title		Weighted (by Job)		Unweighted (by Establishment)	
		Average (Mean)	Median	Average (Mean)	Median
51-0000 Production Occupations					
51-1010	First-Line Supervisors of Production and Operating Workers	\$56,057	\$57,304	\$55,485	\$54,392
51-2000	Assemblers and Fabricators	\$34,057	\$33,072	\$33,863	\$32,302
51-3000	Food Processing Workers	\$26,062	\$27,040	\$28,450	\$27,040
51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	\$39,458	\$41,600	\$35,411	\$33,738
51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	\$34,995	\$33,758	\$36,331	\$34,320
51-4040	Machinists	\$45,355	\$39,520	\$44,508	\$41,600
51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	\$42,804	N/A	\$42,619	\$39,218
51-4060	Model Makers and Patternmakers, Metal and Plastic	\$36,095	N/A	\$39,139	\$38,189
51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	\$38,658	\$36,400	\$39,499	\$37,960
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	N/A	N/A	\$38,333	\$36,795
51-4090	Miscellaneous Metal Workers and Plastic Workers	N/A	N/A	\$37,821	\$33,280
51-4110	Tool and Die Makers	\$57,988	\$60,195	\$54,692	\$52,021
51-4120	Welding, Soldering, and Brazing Workers	\$40,035	\$41,600	\$37,908	\$35,360
51-6030	Sewing Machine Operators	\$27,240	N/A	\$28,751	\$28,558
51-6091	Extruding and Forming Machine Setters, Operators and Tenders, Synthetic and Glass Fibers	\$26,014	N/A	\$33,784	\$34,840
51-6093	Upholsterers	\$30,753	\$25,854	\$35,668	\$35,776
51-7090	Woodworkers, All Other	\$30,992	\$34,320	\$33,894	\$34,840
51-9010	Chemical Processing Machine Setters, Operators, and Tenders	N/A	N/A	\$34,403	\$34,258
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	\$33,302	\$33,426	\$34,301	\$33,435
51-9030	Cutting Workers	\$32,306	\$32,718	\$33,089	\$32,718
51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	\$33,294	\$34,008	\$35,767	\$34,008
51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	\$31,877	\$34,050	\$31,194	\$33,280
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	\$36,648	\$33,883	\$38,290	\$36,400
51-9110	Packaging and Filling Machine Operators and Tenders	\$37,707	\$33,280	\$38,907	\$33,280
51-9120	Painting Workers	\$43,081	\$37,440	\$42,311	\$37,440
51-9162	Computer Numerically Controlled Tool Operators and Programmers	\$57,401	\$60,070	\$55,531	\$57,075
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	\$29,936	\$31,200	\$30,155	\$31,200
51-9196	Paper Goods Machine Setters, Operators, and Tenders	\$31,101	N/A	\$33,973	\$29,120
51-9198	Helpers--Production Workers	\$27,986	\$26,915	\$29,411	\$30,077
51-9199	Production Workers, All Other	\$33,425	\$34,861	\$34,029	\$33,041
53-0000 Transportation and Material Moving Occupations					
53-1040	First-Line Supervisors of Transportation and Material Moving Workers	\$46,162	\$46,862	\$55,447	\$55,255
53-3032	Heavy and Tractor-Trailer Truck Drivers	\$45,597	\$46,186	\$43,474	\$41,600
53-3033	Light Truck Drivers	\$46,169	\$42,266	\$43,170	\$42,973
53-7050	Industrial Truck and Tractor Operators	\$32,974	\$32,053	\$33,584	\$32,666
53-7060	Laborers and Material Movers	\$30,692	\$27,290	\$32,410	\$32,999
53-7064	Packers and Packagers	\$31,117	\$29,328	\$30,717	\$30,046
53-7120	Tank Car, Truck, and Ship Loaders	\$41,981	\$31,200	\$39,525	\$33,779
53-7199	Material Moving Workers, All Other	\$32,377	\$29,536	\$35,171	\$34,216

2019 Wage and Benefit Survey



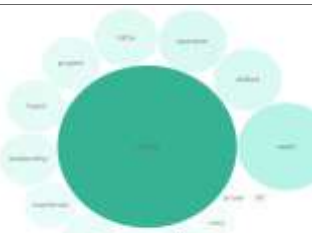

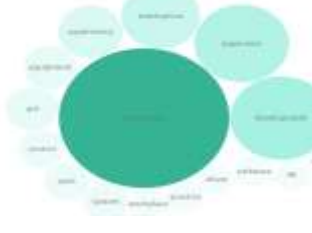
Appendix: Absenteeism, Turnover, and Training Needs

A Comparative Perspectives

Absenteeism could be attributed to two broad categories: Personal and Family reasons. Personal reasons could be illness, transportation problems, or simply now show. On the other hand, family reasons could be family illness, emergency, childcare, and appointments.



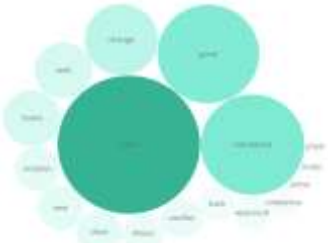
Topic	5 most frequently used words	Word cloud	Interpretation of the topic
1	Family, illness, emergency, childcare, appointment		Family illness, emergency, childcare, appointments
2	Personal, illness, transportation, issues, court		no show, illness, transportation

Training

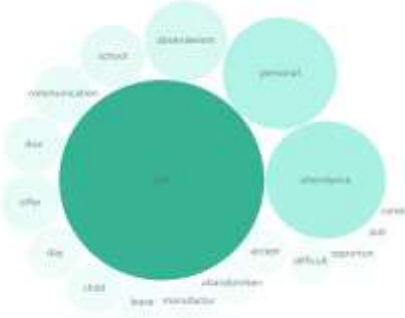
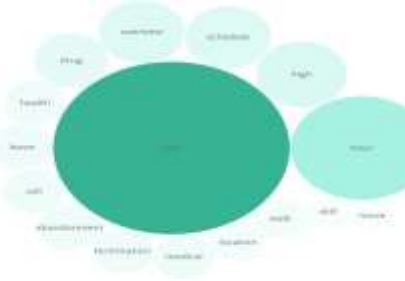
Topic	5 most frequently used words	Word cloud	Interpretation of the topic
1	Management, technical, lean, general, work		People management, ISO, equipment training, technical
2	Computer, communication, jon, manufacture, team		Computer skills, business writing,
3	Safety, weld, skilled, operator, OSHA		Safety (OSHA, Bloodborne pathogens), welding, machine operators, industry certificates (six sigma, Deltek-CostPoint, QMS)
4	Maintenance, soft, quality, operation, forklift		Maintenance, soft skills (work ethics), quality
5	Leadership, development, supervisor, mechanical, supervisory		Supervisor development, leadership

Turnover can be divided into job-related factors and personal factors.

Job-related factors	
	Pay, schedule, overtime, drug test
	Shift work, retirement, location
Personal factors	
	Absenteeism, job abandonment, attendance
	Family and personal issues
	Relocation
	employment opportunities

Topic	5 most frequently used words	Word cloud	Interpretation of the topic
	Employment, opportunity, reason, reallocation, benefit		Relocation, employment opportunities,
	Move, issue, wage, environment, career		Wages, family and personal issues
	Work, retirement, good, change, shift		Shift work, retirement, location

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	Job, attendance, personal, absenteeism, school		Absenteeism, job abandonment, attendance issues
	Pay, hour, high, schedule, overtime		Pay, schedule, overtime, drug test

Region	Training	Turnover	Absenteeism
1	Skill (QMS, lean, communication, read)	Work environment: shift, drug test, commute	Family related: illness, child care
	Maintenance (mechanical, forklift, engineer, technical)	pay	Personal: transportation, illness
	Leadership (supervisory)	Employment opportunities	
2	Leadership	Job-related: retirement, attendance, Abandonment	Family related: illness, child care
	Quality	Employment opportunities	Personal: transportation, illness
	Safety	Pay	
	Maintenance		
3	Skill (tools operation, press operation, weld)	Employment opportunities	Family related: illness, child care
	Leadership (supervisory)	Job related: shifts, commute, attendance, Abandonment	Personal: transportation, illness
	Management (team building, time management)	pay	
	Safety		
4	Leadership	Job related: Attendance, shifts hours, Abandonment	Family related: illness, child care
	Maintenance	Employment opportunities	Personal: transportation, illness
	Safety		
	Soft skills - communication		

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5	Leadership	Employment opportunities	Family related: illness, child care
	Management	Personal reasons: family	Personal: transportation, illness
	Computer skills	pay	
		Job related: type of work, shift hours, attendance, Abandonment	
6	Leadership	Job related: attendance, Abandonment, shifts schedule, working conditions	Family related: illness, child care
	Safety	Pay	Personal: transportation, illness
	Management		
	Quality		
	Maintenance		
7	Safety (OSHA)	Employment opportunities	Family related: illness, child care
	Leadership	Job related: Attendance, Abandonment, drug test	Personal: transportation, illness
	Skills (computer and machines)	Pay	
	Management		
8	Safety	Employment opportunities	Family related: illness, child care
	Skills (soft, computer, machines)	Job related: work environment, retirement, shift hours	Personal: transportation, illness
	Leadership (supervisory)	Personal reasons	
9	Communication	Job related: retirement, shift hours,	Family related: illness, child care
	Computer Skills	Personal reasons: moving	Personal: transportation, illness
	Safety (OSHA)	Employment opportunities	
10	Leadership	Pay	
	Safety	Job related: drug test, type of work, attendance, abandonment, shift hours, management issues	
	Management	Personal reasons: moving, family issues	
	Computer Skills	Employment opportunities	
11	Leadership	Job related: Attendance, job abandonment, compensation, work environment, shift hours, management, type of work, no advancement	Family related: illness, child care

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	Maintenance	Employment opportunities	Personal: transportation, illness
	Safety	Pay	Weather Conditions
	Management	Personal issues: family, relocation	
	Computer and communication		
12	Leadership	Job related: benefits, attendance, working conditions, shift hours, job abandonment, retirement, no advancement	Family related: illness, child care
	Safety + certificates	Pay	Personal: transportation, illness
	Management	Employment opportunities	Work Conditions
	Soft skills	Personal reasons: commute, moved	
13	Safety	Employment opportunities	Family related: illness, child care
	Computer and communication	Job related: Attendance, retirement, shift hours, type of work	Personal: transportation, illness, court
	Management	Personal issues: family, relocation	
	Leadership	Pay	