

QUALITY PROGRESS
The official publication of ASQ

2020 QP SALARY SURVEY: THE COMPLETE REPORT

A

Striking the right balance to reach your career goals

FORMULA

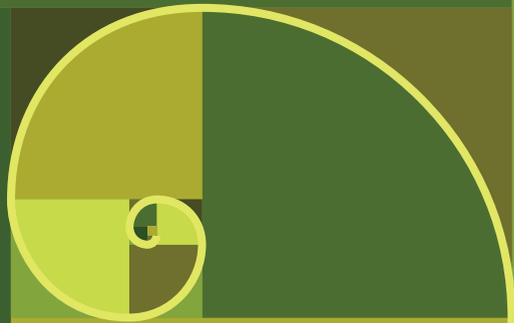
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REGULAR EMPLOYEE RESULTS

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In 2020, the world was shocked by the emergence of the COVID-19 virus. Of course, quality professionals were not immune to the far-reaching effects of this ongoing crisis.

Many were forced to switch jobs. Others needed to shift responsibilities within existing roles. Some had to look for entirely new employers. And nearly everyone had to adjust to tremendous change within the workplace and go virtual—making their homes temporary workplaces. Even in some manufacturing sectors in which workers interact with machines in a fixed plant, many jobs that could be switched to work-from-home mode did so. In addition, entire industry sectors turned upside down, many reporting massive layoffs.

Indeed, disruption has been deep and widespread, and it continues to be felt throughout the profession.

For 34 years now, the annual QP Salary Survey has been used to examine the state of the quality profession, gauging any changes in terms of salary and other workplace factors. This year, the historic COVID-19 crisis abruptly became an overriding factor that could not be overlooked, giving QP the opportunity to explore some of the implications the coronavirus is having on quality professionals' jobs and careers.

For instance, a higher percentage of respondents to this year's questionnaire reported having been laid off within the past six months than at any time since 2009, Figure 1 shows.

There's at least one strong vital sign worth noting, however. For U.S. respondents, the average salary grew a hefty 8.06% from 2019 to 2020. More on that surprisingly large increase in section one of this year's salary report.

For now, though, that seemingly positive development can't mask the dimmer views of the state of the quality profession and ongoing troubles in the workplace that the annual salary survey revealed.

FIGURE 1

Historical percentage of respondents reporting laid off within past six months

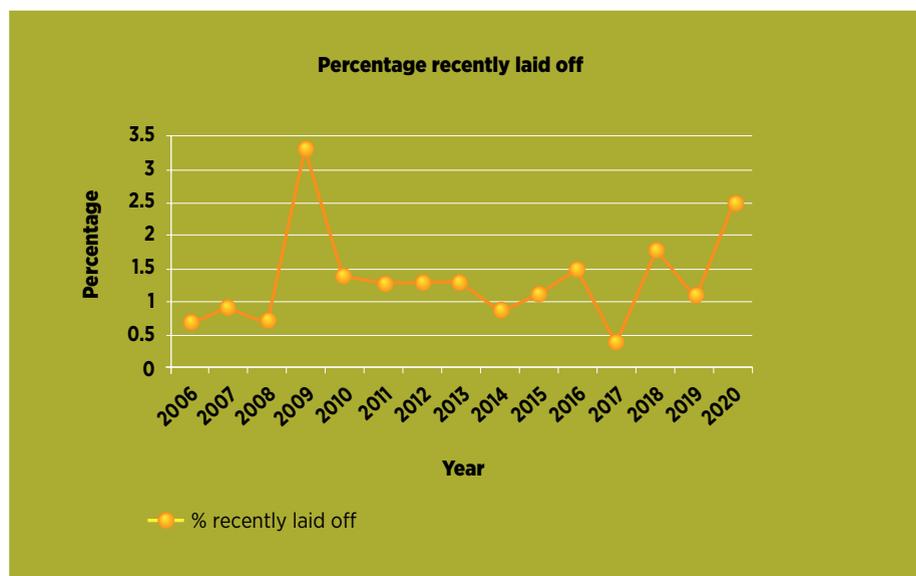


Figure 1 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees

Recent layoffs reported by respondents

The timeline in Figure 1 shows the percentage of respondents each year who reported having been laid off within the six months prior to taking the survey. The percentage was low during the boom years before 2008. The following year—2009—marks the point at which survey respondents felt the effects of the recession. In that year, 3.3% of respondents said they had been laid off recently.

Although the recovery from the 2008 recession was gradual, the percentage of respondents reporting layoffs never again rose to more than 2% until this year. Now, it stands at 2.5%. Remember that the COVID-19 crisis has had less time to make itself felt than the recession had by the summer of 2009, when that year's survey questionnaire was released. In that light, it must be acknowledged that this crisis probably outdoes the 2008 recession.

In hopes that the COVID-19 disruption might be short-lived, some organizations resorted to furloughs, the common term for a layoff expected to be temporary. Sixteen of our respondents reported that they had been laid off, but had at the same time been given a tentative return-to-work date. Table 1 (p. 6) shows this, as well as three respondents reporting their workplace closed by a county order, two by a federal order, and five by order of a U.S. state.

Changes in jobs, workplaces

The survey asked respondents whether they believed their workplaces would be changed permanently by the COVID-19 crisis, and more than 1,200 respondents answered in the affirmative. Table 2 (p. 6) breaks down the coding conducted on a sample of about one-tenth of those responses. The responses broke down into the categories

TABLE 1

Furloughs and workplace closures—U.S. and Canadian respondents

Number of respondents furloughed (temporary layoff)	16
Workplace closed by county order	3
Workplace closed by federal order	2
Workplace closed by state order	5

TABLE 2

Job changes from coded responses

	Percentage of responses	Number of responses
Remote work	52.7%	69
Position changed or promotion/job change postponed	14.5	19
In-plant/in-office conditions	12.2	15
HR management	8.4	11
Learning required	6.1	8
Unknown or ambiguous answer	4.6	6
Workload increased	1.5	2

TABLE 3

Workplace changes—U.S. and Canadian respondents

	Percentage of responses	Number of responses
Started a job search due to COVID	11.6%	395
Believe workplace will be changed permanently	66.5	2,268
Started working remotely	63.1	2,085
Remote work began due to COVID	84.7	1,755
Organization had technology in place for remote work	57.9	1,201

shown in the table, with the emergence of remote work taking a commanding lead as the No. 1 workplace change.

The table also shows that 14.5% of respondents said their job position had changed, which, in some cases, meant that a promotion or a job change was postponed. It also may have meant that job duties changed—even if the title remained the same.

Others reported that, whether they visited their employer's physical workplace—be it a manufacturing or office setting—on a regular basis or only occasionally, changes were evident there.

Others reported altered working conditions as a result of new HR management issues. Increased workloads were noted by 1.5%, which of course may overlap with the changed position category further up the table.

Table 3 offers another view of changes in the workplace. Of those respondents who answered the COVID-19-related questions, 11.6% said they began a new job search as soon as they knew the pandemic had started, anticipating the disruption the virus might bring to their work lives.

A majority of respondents (66.5%) said they believe that the workplace will be permanently changed, and this group formed the basis of those who answered the questions in Table 2. As Table 3 shows, more than 2,000 respondents began to work remotely, and this may well be in addition to some who already had begun remote work for reasons not related to COVID-19.

Indeed, only 1,755 reported that their remote work started because of restrictions and lockdowns precipitated by COVID-19. Of these, 1,201 (57.9%) said their organization—when the crisis began—had the technology in place to enable remote work. This is a reasonably good state of readiness considering how the virus took the world by surprise.

Productivity affected

The QP Salary Survey asked those who had begun working from home or other remote locations how they thought the new settings affected their own productivity, as well as their organization's productivity. The results were coded into the five categories shown in Table 4.

There was no majority opinion, but nearly one-third of those who answered this question said that productivity had been negatively affected. More than 25% said the effect was neutral, and 23.7% said productivity had been positively affected. Some gave unclear or ambiguous answers, and others gave mixed ones. An answer was deemed mixed, for example, if it was one in which a specific aspect of work was identified as being positively affected while noting one or more other aspects as being harmed by remote work.

Respondents to this question could not help mixing up appraisals of productivity with their subjective feelings about working from home. In addition, productivity for the individual depended very much on the home environment.

For instance, the presence of children at home—given that schools and daycare centers were widely closed due to the pandemic—was a major factor for a large number of respondents. Some were glad to be able to be closer to their children and felt that their overall satisfaction with work was improved by the situation. Others pointed out that attempting to focus on work and the needs of children simultaneously not only proved stressful, but also a detriment to each of these activities.

Industry disruption

It seems intuitively obvious that not all industries would be affected by the COVID-19 crisis in the same way. This is demonstrated by changes to the products and services that industries offered, and also to their employee headcounts. One of the survey questions asked respondents whether his or her organization was changing its product or service offerings. The verbatim text answers were coded into the six categories shown in Table 5. Among those who answered this question, more than one-third (37.3%) said the organization had added one or more products or services.

There also were several unclear or ambiguous answers, and many more that made clear that while their organization did not alter product or service offerings, delivery methods were changed. This was primarily in areas where services that had been provided in person had to be handled

TABLE 4

How has productivity been affected by remote work?

	Percentage of responses	Number of responses
Negatively	33.2%	63
Neutral	25.8	49
Positively	23.7	45
Unclear or ambiguous answer	8.9	17
Mixed	8.4	16

TABLE 5

Sample of comments about changed product/service offerings

	Percentage of responses	Number of responses
Added product or service	37.3%	47
Unclear or ambiguous answer	22.2	28
Changed delivery method (services)	14.3	18
Eliminated products or services	9.5	12
Changed mix of products or services, but no additions or subtractions	8.7	11
Not relevant to offerings	7.9	10

remotely. Several service industry organizations did extensive retooling.

Meanwhile, as Table 5 shows, 9.5% of respondents said that their organizations had subtracted or dropped one or more products or services. The next row in the table shows the percentage who responded that their organization changed its mix of products or services without any additions or subtractions. For example, an organization may have dedicated more shifts or plant space to an existing product line, while at the same time scaled back production of other items.

Large numbers of respondents reported their organizations had decreased headcount through



**More than 1,200
respondents said
they believed the
crisis would bring
about permanent
changes in their
workplaces.**

TABLE 6

Organizations decreasing or increasing headcount due to COVID-19—by industry

	Decreased headcount		Increased headcount	
	Percentage reporting	Number reporting	Percentage reporting	Number reporting
All manufacturing industries	27%	669	6.9%	170
Aerospace vehicles	38.2	87	1.8	4
Chemicals and related products	7	22	8.9	28
Computers and electronic products	25.4	34	3.7	5
Defense	13.1	14	5.6	6
Electrical products	33.8	24	7	5
Fabricated metal products	40.5	34	6	5
Food and related products	11.1	14	19	24
Machinery	35.5	44	5.6	7
Medical instruments and supplies	22.2	109	10	49
Other product	34.5	86	3.2	8
Paper and related products	25	10	10	4
Primary metals	35.7	15	—	—
Rubber and plastic products	27.5	38	5.8	8
Toys, sporting goods, pens, jewelry and miscellaneous products	38.5	5	7.7	1
Transportation vehicles (not aerospace)	50.8	96	4.2	8
All service industries	19%	178	6.5%	61
Construction services	31.4	11	8.6	3
Consulting and other professional, scientific, and technical services	14.3	32	5.4	12
Educational services	30	12	—	—
Financial and insurance services	8.6	6	7.1	5
Government and public administration services	7.4	8	1.9	2
Healthcare services	23.9	42	13.1	23
Information services	18.4	7	7.9	3
Oil and gas extraction and refining	44.8	13	—	—
Other service	19.7	12	1.6	1
Transportation services	38.2	13	5.9	2
Utilities	20	4	5	1
Wholesale services	35.7	5	14.3	2

layoffs or other means, as shown in Table 6. The table was divided into manufacturing and services. The manufacturing sector hardest hit by the pandemic was transportation vehicles, the last row of the manufacturing section shows. In the service sector, the oil and gas extraction and refining sector was hit hard, too. That sector, of course, is closely related to transportation vehicles.

There are several industries in which some organizations laid off workers, while others increased headcount as a result of the pandemic, Table 6 shows. The row for food and related products shows a volatile sector: 11.1% of respondents said their organizations lost headcount due to the virus, while another 19% said their organizations added staff to meet new demand spurred by COVID-19.

Similarly, wholesale services, at the bottom of the table, shows 35.7% of respondents reporting reduced headcount from the virus, while 14.3% of respondents said their organizations increased headcount.

A wealth of data, and more insight to come

Respondents to the 2020 QP Salary Survey were generous in sharing insight about how they and their organizations were handling the COVID-19 crisis. Not only did they take a somewhat extended survey this year, but nearly two-thirds of U.S. and Canadian respondents also granted QP permission to follow up with additional inquiries.

QP plans to take the insight gleaned from the survey data and formulate deeper questions and follow up with those respondents to gain even more insight into how the quality profession is coping with this extraordinary challenge. This could include, for instance, further examination on telecommuting, remote sales and remote teaching, and what works and what doesn't.

There also are plans to explore the lessons organizations are learning while they add to their product or service offerings. Quality professionals often push the boundaries of what's possible. How fast can we make quality happen? Is the answer different in manufacturing versus service?

Even before the United States entered World War II, the nation assisted its allies in the war effort by turning the automotive industry, centered in Detroit, into what became known as the "Arsenal of Democracy." Carmakers massively retooled to turn out aircraft bombers, tanks, artillery, bombsites, and a host of other types of war materiel.

The historic crisis facing the world today is the closest thing any of us is likely to see in our lifetimes that compares to that tremendous industrial effort of the 1940s. QP has always acted as a broker and medium for the sharing of best practices so quality professionals can learn from each other how best to excel in their industries. We look forward to playing that same role as our readers continue to share what they're learning in overcoming the tremendous challenge of COVID-19. Look for that in-depth article in March. [QP](#)

EDITOR'S NOTE

Each figure and table that accompanies this article is data from respondents in the United States and Canada. The data also include responses that could not be used in the various analyses that make up the rest of this year's report.



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UNUSUAL UPTICK IN AVERAGE U.S. SALARY

The first result readers of the annual QP Salary Survey usually look for is the average salary for the quality profession as a whole.

The most meaningful such figure is the average for professionals in the United States, where the vast majority of our responses come from. This year, as Table 1 shows, this average salary increased tremendously. The mean full-time salary for U.S. respondents of \$103,512 is 8.06% higher than 2019's average of \$95,790.

In a normal year, this might be wonderful news. But as the lead article "A Formula That Fits" made clear, things are not rosy for the quality profession any more than for the world economy. So why, you might wonder, is there such a large increase in U.S. salaries?

A couple of hypotheses come to mind. The first is that perhaps, given the layoffs

discussed in the lead article, quality professionals remaining at work are putting in more hours to make up for their missing colleagues. Figure 1 (p. 12) shows that in the United States, there is a clear correlation between hours worked per week and paycheck size. With every increase in the number of hours worked, there is at least some increase in pay. Interestingly as a side note, this rule doesn't work so well in Canada, as Figure 2 (p. 13) shows.

If this hypothesis were true, Figure 3 (p. 14) would look quite a bit different. This chart shows, for U.S. respondents (upper line) and Canadian respondents, the percentage of those who report working more than 45 hours per week. In 2019, the percentage for U.S. respondents dropped below 35% for the

first time in many years, and it has not increased appreciably this year.

Looking at Canadian respondents again, notice that while longer hours do seem to pay somewhat better in Canada, fewer respondents there work those longer hours. Look back at Figure 2: Almost nobody in Canada works more than 60 hours a week. Only 0.6% report working such long workweeks.

Another hypothesis to explain the jump in average salary is there's a different mix of job titles. Job titles are reasonably good proxy for a particular type of worker and the value that worker provides. To prepare to test this hypothesis, first look at

the salaries by job title shown in Table 2 (p. 15). Although the table includes part-time employees in its bottom one-third, what's most interesting is the full-timers shown in the top part of the table.

An easier way to get a sense of which job titles provide the best salaries is to look at the chart in Figure 4 (p. 16). There, you see that those with the job title similar to vice president or executive (top of the chart) outearn the others by a considerable margin. Their average of \$198,010 exceeds the average salary of the next highest group—statisticians, who make \$151,803—by \$46,207.

Remember the question being addressed, and look at this year's jump in salaries in the United

TABLE 1

Historical average salaries—U.S. employees

Year	Average salary	Change	Percentage change
2004	\$69,704	—	—
2005	72,318	\$2,614	3.75%
2006	77,049	4,731	6.54
2007	80,207	3,158	4.1
2008	81,480	1,273	1.59
2009	83,442	1,962	2.41
2010	85,383	1,941	2.33
2011	87,086	1,703	1.99
2012	86,734	(352)	-0.4
2013	88,606	1,872	2.16
2014	88,423	(183)	-0.21
2015	90,878	2,455	2.78
2016	91,659	780	0.86
2017	93,036	1,377	1.5
2018	94,561	1,525	1.64
2019	95,790	1,230	1.3
2020	103,512	7,722	8.06

Table 1 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees

The mean full-time salary for U.S. respondents of \$103,512 is 8.06% higher than 2019's average of \$95,790.

SECTION 1: Salary by Job Title

FIGURE 1

Salary by average hours per week—U.S. respondents

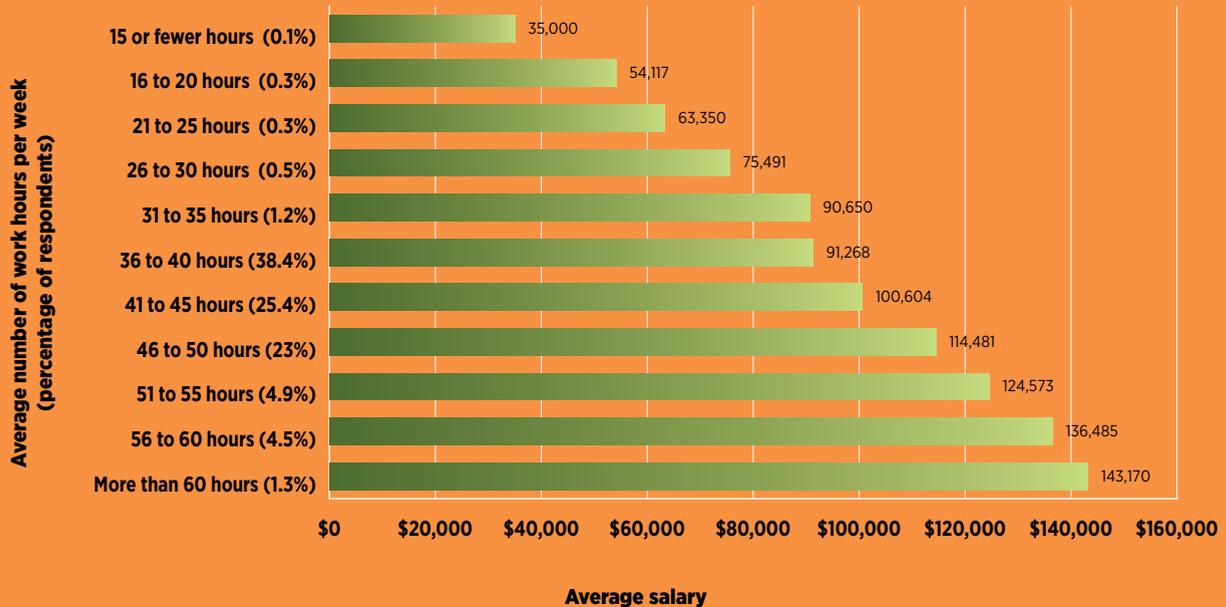


Figure 1 includes results for: \times Full-time employees and consultants, \times Part-time employees and consultants, \times U.S. employees, $_$ Canadian employees

States—shown graphically in Figure 5 (p. 17). U.S. and Canadian respondents are depicted in this chart, the upper line being the salaries for the United States. The upward jump from 2019 to this year is dramatic. Before leaving this chart, though, take note of what happened in Canada in 2018. Why was there such a steep drop that year in the Canadian average salary? It was the first year in the survey’s

history that not a single vice president/executive in Canada responded.

So perhaps the mix of job titles can account for some of this year’s steep increase. This can be checked by reviewing Table 3 (p. 18). First, note there was a steep drop in the overall response rate to the survey. This was true around the world and especially true in the United States, where the COVID-19 virus

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FIGURE 2

Salary by average hours per week—Canadian respondents

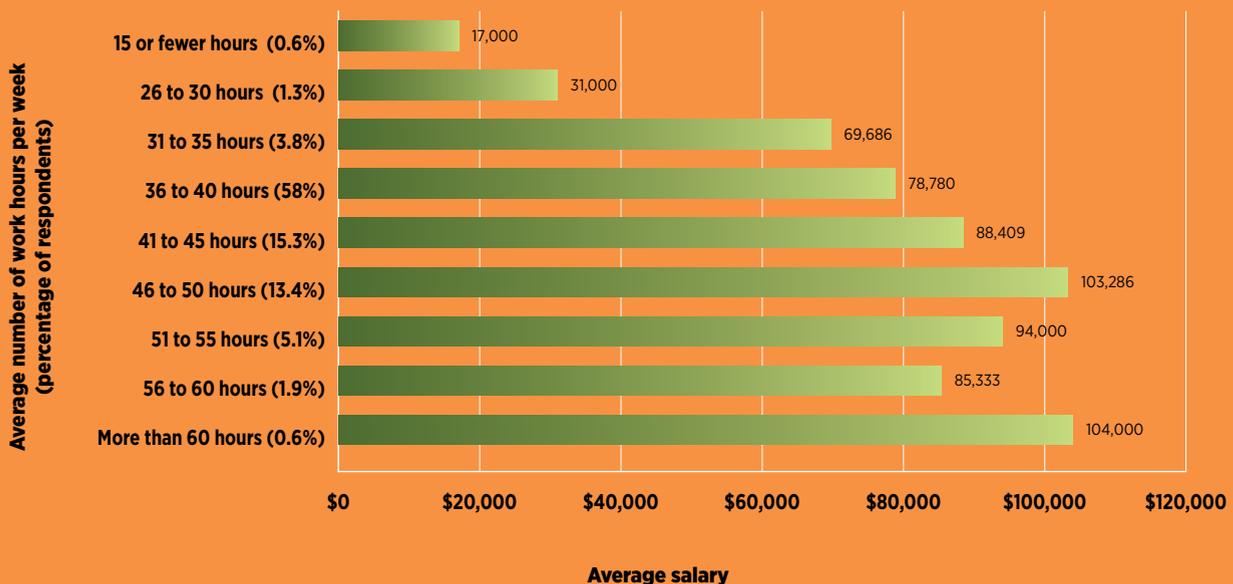


Figure 2 includes results for: Full-time employees and consultants, Part-time employees and consultants, U.S. employees, Canadian employees

Earnings for Canadian respondents are reported in Canadian dollars.

FIGURE 3

Percentage of respondents working more than 45 hours per week

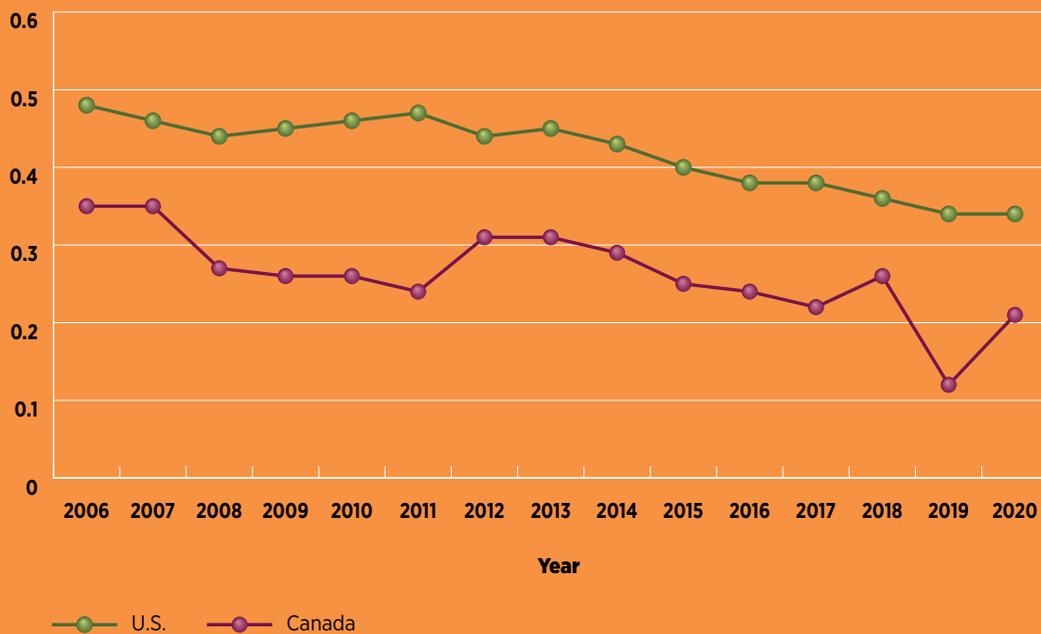


Figure 3 includes results for: \bar{x} Full-time employees, \bar{y} Part-time employees and consultants, \bar{x} U.S. employees, \bar{x} Canadian employees
Earnings for Canadian respondents are reported in Canadian dollars.

TABLE 2

Salary by job title—U.S. respondents

	Minimum	Maximum	Standard deviation	Count	Mean	Median
Full-time employees						
All full-time employees	\$21,000	\$400,000	\$42,830	3,412	\$103,512	\$96,000
Analyst	28,800	155,000	24,268	96	74,896	72,000
Associate	22,000	110,000	22,096	33	58,306	56,160
Auditor	39,000	185,000	32,074	129	88,120	80,000
Black Belt	42,000	142,000	23,076	41	97,154	95,000
Calibration technician	30,680	98,000	20,554	20	61,976	60,000
Champion	65,000	169,000	33,052	10	115,250	106,750
Consultant	63,000	300,000	42,319	56	126,221	126,500
Coordinator	35,000	150,000	23,767	75	64,733	57,000
Director	45,000	300,000	39,873	365	143,144	140,000
Educator/instructor	50,000	255,000	50,675	28	114,732	104,750
Green Belt	57,000	111,000	17,092	20	77,451	73,500
Inspector	24,000	115,000	19,677	57	55,389	50,000
Manager	24,960	295,000	30,839	1,014	107,349	104,000
Master Black Belt	80,000	192,000	24,345	40	134,846	134,000
Other	26,000	160,000	34,120	44	81,932	76,707
Process/manufacturing/project engineer	50,000	162,000	25,059	80	95,739	90,000
Quality engineer	40,000	255,680	25,251	577	89,310	85,000
Reliability/safety engineer	60,000	177,800	28,973	34	125,331	130,500
Software quality engineer	59,150	200,000	28,558	35	117,872	115,000
Specialist	33,000	176,000	30,225	193	83,903	76,000
Statistician	115,000	222,700	38,913	16	151,803	130,000
Supervisor	43,000	165,000	25,586	95	80,619	76,000
Supplier quality engineer/professional	54,000	185,000	25,666	127	102,267	102,000
Technician	21,000	100,000	13,337	106	52,372	51,500
Vice president/executive	72,000	400,000	65,300	121	198,010	193,000
Part-time employees						
All part-time employees	\$6,343	\$165,000	\$36,382	40	\$59,239	\$53,750
Associate	6,343	52,500	24,769	3	34,614	45,000
Auditor	25,000	65,000	17,819	5	46,000	50,000
Black Belt				n < 3		
Consultant	47,000	150,000	38,969	6	73,167	61,000
Director				n < 3		
Educator/instructor	10,000	66,000	32,332	3	47,333	66,000
Manager	21,000	102,000	30,806	6	64,553	68,660
Master Black Belt				n < 3		
Other				n < 3		
Process/manufacturing/project engineer				n < 3		
Quality engineer	37,000	60,000	11,533	3	49,000	50,000
Software quality engineer				n < 3		
Specialist	12,000	55,000	21,237	4	29,500	25,500
Statistician				n < 3		
Technician				n < 3		

Table 2 includes results for: x Full-time employees, x Part-time employees, x U.S. employees, _ Canadian employees
 n < 3 indicates that a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

SECTION 1: Salary by Job Title

FIGURE 4

Salary by job title—U.S. respondents

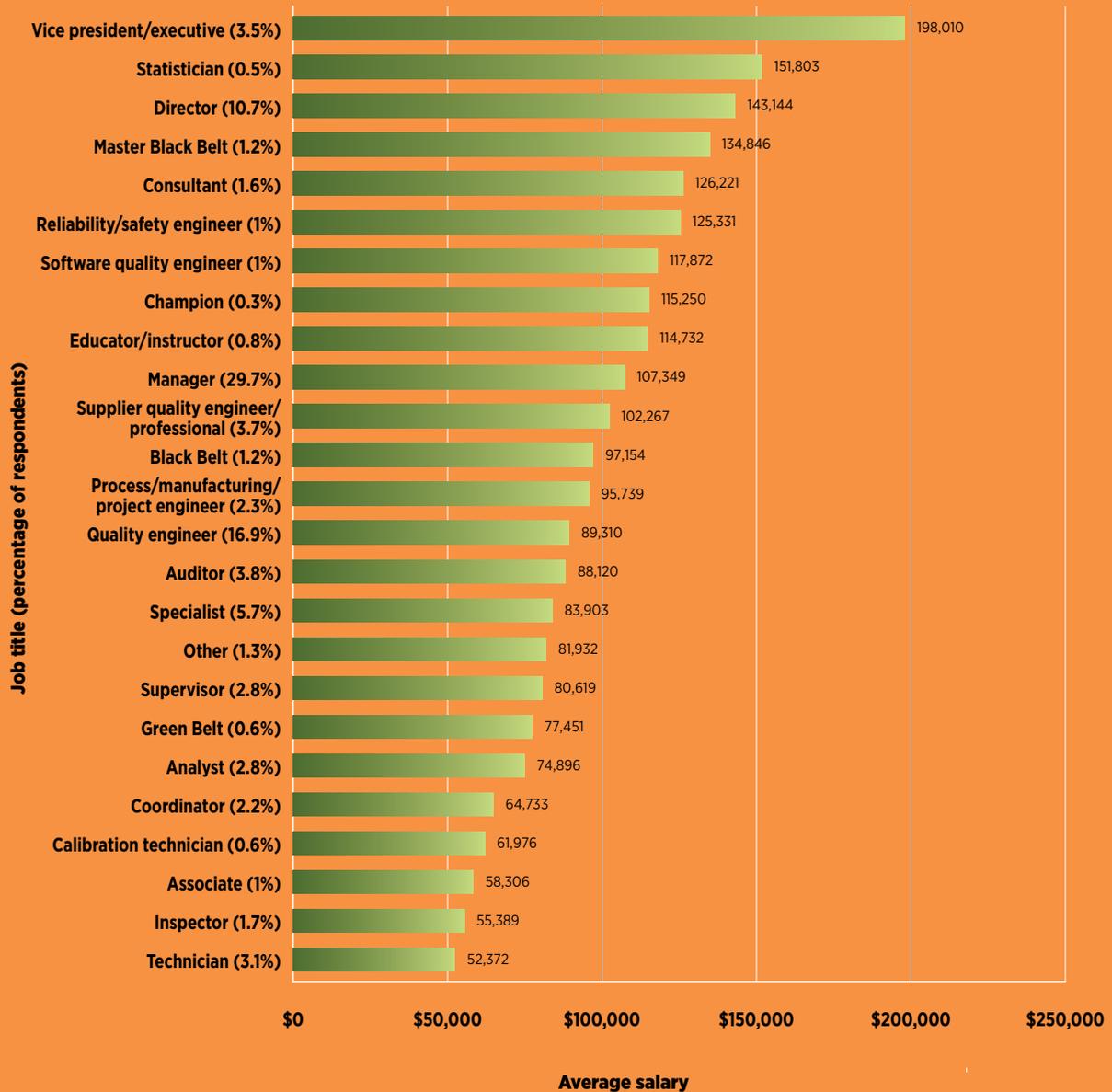


Figure 4 includes results for: Full-time employees and consultants, Part-time employees and consultants, U.S. employees, Canadian employees

FIGURE 5

Historic average full-time salaries—U.S. and Canadian respondents

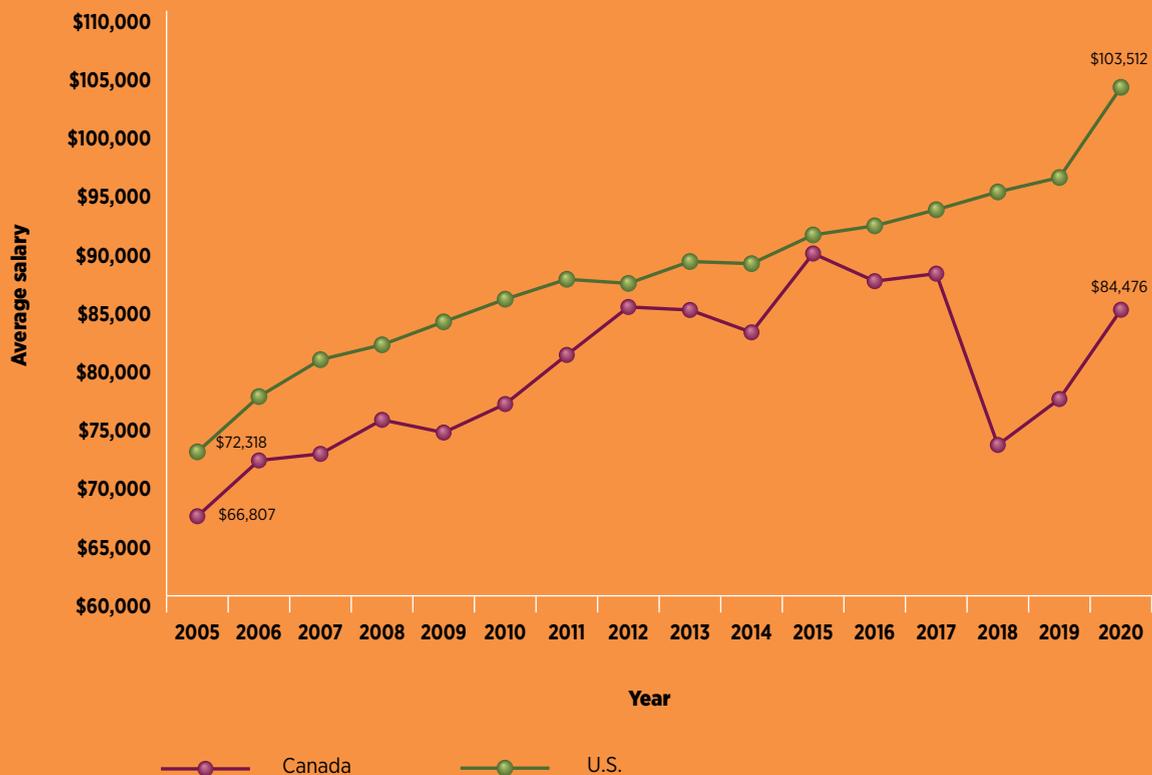


Figure 5 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, \times Canadian employees, Canadian salaries are reported in Canadian dollars.

► continued from page 23

caused even more upheaval than in many other developed countries.

For nearly every job title, the number of respondents holding that title decreased in 2020 from the previous year. But the decreases were not evenly distributed over the job titles. Note the column headed “percentage decrease.” This is the column by which this table has been sorted. Those job titles that lost the greatest percentage of responses from

year-to-year are at the top. Also note the average salaries tend to be higher at the bottom of the chart, among job titles that are better represented in this year’s response group.

The right-most column probably shows this more clearly than even the average salaries. This column shows the rank attributable to each job title when they are ranked by salary. At the very bottom of the table, you find that vice presidents/executives are

continued on page 30 ►

SECTION 1: Salary by Job Title

In the United States, professionals who work full time for an employer while also moonlighting as consultants earn hefty salaries. They earn, on average, \$123,318 from their regular employment and supplement that income with an average of \$50,771 in billings as a consultant.

TABLE 3

Mix of job titles in U.S.—2019 vs. 2020

Job title	Count (2019)	Count (2020)	Decrease year over year	Percentage decrease	Average salary (2020)	Salary rank (2020)
Associate	77	33	44	57.1%	\$58,306	23
Black Belt	92	41	51	55.4	97,154	12
Technician	216	106	110	50.9	52,372	25
Inspector	114	57	57	50	55,389	24
Process/manufacturing/project engineer	148	80	68	45.9	95,739	13
Calibration technician	34	20	14	41.2	61,976	22
Analyst	162	96	66	40.7	74,896	20
Supervisor	156	95	61	39.1	80,619	18
Champion	16	10	6	37.5	115,250	8
Coordinator	120	75	45	37.5	64,733	21
Specialist	304	193	111	36.5	83,903	16
Consultant	88	56	32	36.4	126,221	5
Software quality engineer	54	35	19	35.2	117,872	7
Green Belt	30	20	10	33.3	77,451	19
Auditor	188	129	59	31.4	88,120	15
Other	64	44	20	31.3	81,932	17
Quality engineer	813	577	236	29	89,310	14
Reliability/safety engineer	46	34	12	26.1	125,331	6
Manager	1,359	1,014	345	25.4	107,349	10
Supplier quality engineer/professional	156	127	29	18.6	102,267	11
Director	436	365	71	16.3	143,144	3
Master Black Belt	46	40	6	13	134,846	4
Educator/instructor	32	28	4	12.5	114,732	9
Statistician	18	16	2	11.1	151,803	2
Vice president/executive	115	121	-6	-5.2	198,010	1

Table 3 includes results for: \times Full-time employees, \times Part-time employees, \times U.S. employees, $_$ Canadian employees

FIGURE 6

Salary by job title—Canadian respondents

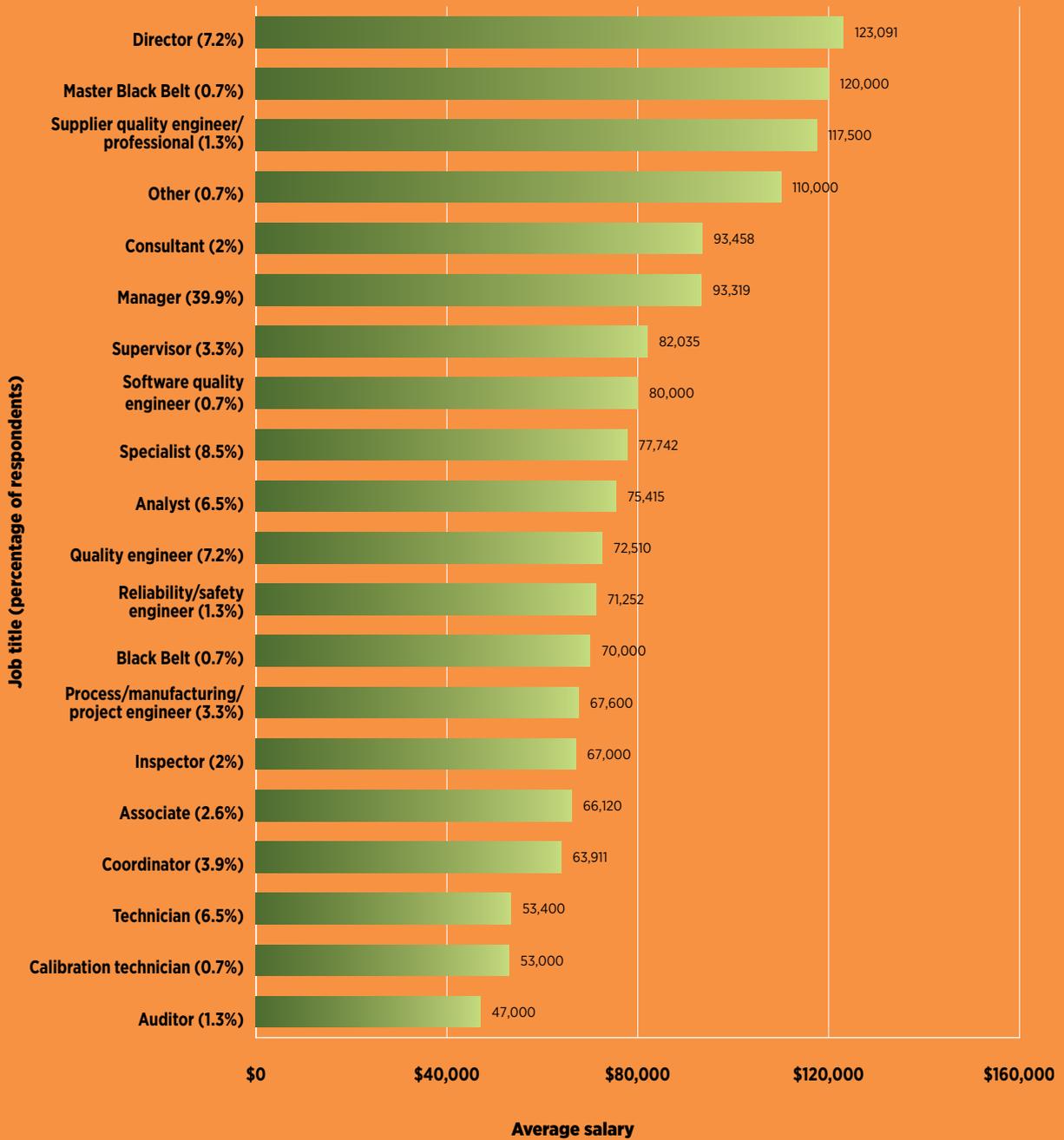


Figure 6 includes results for: χ Full-time employees, $_$ Part-time employees, $_$ U.S. employees, χ Canadian employees
Earnings for Canadian respondents are reported in Canadian dollars.

SECTION 1: Salary by Job Title

TABLE 4

Salary by job title—Canadian respondents

	Minimum	Maximum	Standard deviation	Count	Mean	Median
Full-time employees						
All full-time employees	\$32,000	\$176,000	\$27,304	153	\$84,476	\$83,000
Analyst	35,000	94,854	18,002	10	75,415	81,000
Associate	47,819	77,000	13,260	4	66,120	69,830
Auditor				n < 3		
Black Belt				n < 3		
Calibration technician				n < 3		
Consultant	83,000	105,000	11,040	3	93,458	92,375
Coordinator	50,000	75,000	9,984	6	63,911	64,000
Director	84,000	176,000	25,762	11	123,091	125,000
Inspector	47,000	104,000	32,078	3	67,000	50,000
Manager	40,000	160,000	25,169	61	93,319	91,000
Master Black Belt				n < 3		
Other				n < 3		
Process/manufacturing/ project engineer	42,000	100,000	22,590	5	67,600	70,000
Quality engineer	44,321	100,000	17,885	11	72,510	65,000
Reliability/safety engineer				n < 3		
Software quality engineer				n < 3		
Specialist	56,299	122,000	18,218	13	77,742	75,000
Supervisor	51,174	112,000	22,379	5	82,035	80,000
Supplier quality engineer/ professional				n < 3		
Technician	32,000	90,000	15,313	10	53,400	50,000
Part-time employees						
All part-time employees	\$12,000	\$65,000	\$25,652	4	\$36,000	\$33,500

Table 4 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees (Canadian dollars)

n < 3 indicates that a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

► continued from page 27

No. 1 in salary ranking, earning their whopping \$198,010.

A quick way to get an intuitive feel for what this table is telling us, then, is to simply see how much lower the rank numbers are (corresponding to higher salaries) in the bottom half of the table. The first through fourth-ranking

job titles are all there, among the job titles that lost the fewest or smallest percentage of respondents from year to year.

Although the fourth column shows that it is the percentage decrease, the last row is an exception. We actually had a greater number of vice presidents/executives, along with their

hefty salaries, respond to this year's survey than to last year's.

This means that the hypothesis is borne out: The mix of job titles belonging to respondents goes some considerable way toward explaining the large apparent rise in this year's average salary. Here, a caveat is necessary, though. In a body of data as complex as the salary survey—with its tremendous range of average salaries by job title—no single explanation is likely to account for all of a phenomenon like this year's increase.

To round out the picture of average salaries, those for Canadian respondents arranged by job title are shown graphically in Figure 6 (p. 19) and

further detail is provided in Table 4.

The final exhibit of this chapter shows a phenomenon that has been consistent throughout the years of the survey. It seems perennially true that those full-time employees who supplement their income by self-employed consulting work earn the highest salaries in their regular employment. Thus, with the addition of the self-employment income, these employees are making an average per year in excess of \$200,000.

Having examined average salaries by job title, the groundwork has been laid for an exploration of the factors that, year in and year out, seem to increase the likelihood of good earnings.

TABLE 5

Salary by employment status

	Percentage	Average salary earned as an employee	Average base revenue earned as a self-employed consultant
United States			
Full-time employee	95.64%	\$103,202	—
Part-time employee	0.93	59,956	—
Full-time employee and self-employed consultant	0.91	136,226	\$68,484
Part-time employee and self-employed consultant	0.2	55,857	72,857
Self-employed consultant only	2.32	—	144,746
Canada			
Full-time employee	95.63%	\$84,476	—
Part-time employee	2.5	36,000	—
Self-employed consultant only	1.88	—	\$75,000

Table 5 includes results for: x Full-time employees and consultants, x Part-time employees and consultants, x U.S. employees, x Canadian employees
Earnings for Canadian respondents are reported in Canadian dollars.

CERTIFICATION DOES A SALARY GOOOD

Year after year, the QP Salary Survey has shown that if you aim for a higher salary, a key part of the formula is to earn ASQ certifications. A single certification is good, and for many respondents, more might be better.

Figure 1 shows that salaries are higher for holders of multiple certifications, up to five, where an earnings plateau is reached. In the United States, holders of five certifications average a salary of \$122,296.

Certifications clearly are most valuable when they correspond to the work being done by the certification holder. Table 1 (p. 24) shows, for example, that respondents with a job title of manager who also hold the ASQ manager of quality/organizational excellence certification earn a substantial 13.1% more, on average, than those without that certification. An auditor who is also an ASQ-certified quality auditor outearns other auditors by \$18,302, or a whopping 24%.

In the United States, professionals holding five ASQ certifications earn an average of \$122,296 a year.

FIGURE 1

Salary by number of ASQ certifications held—U.S. respondents

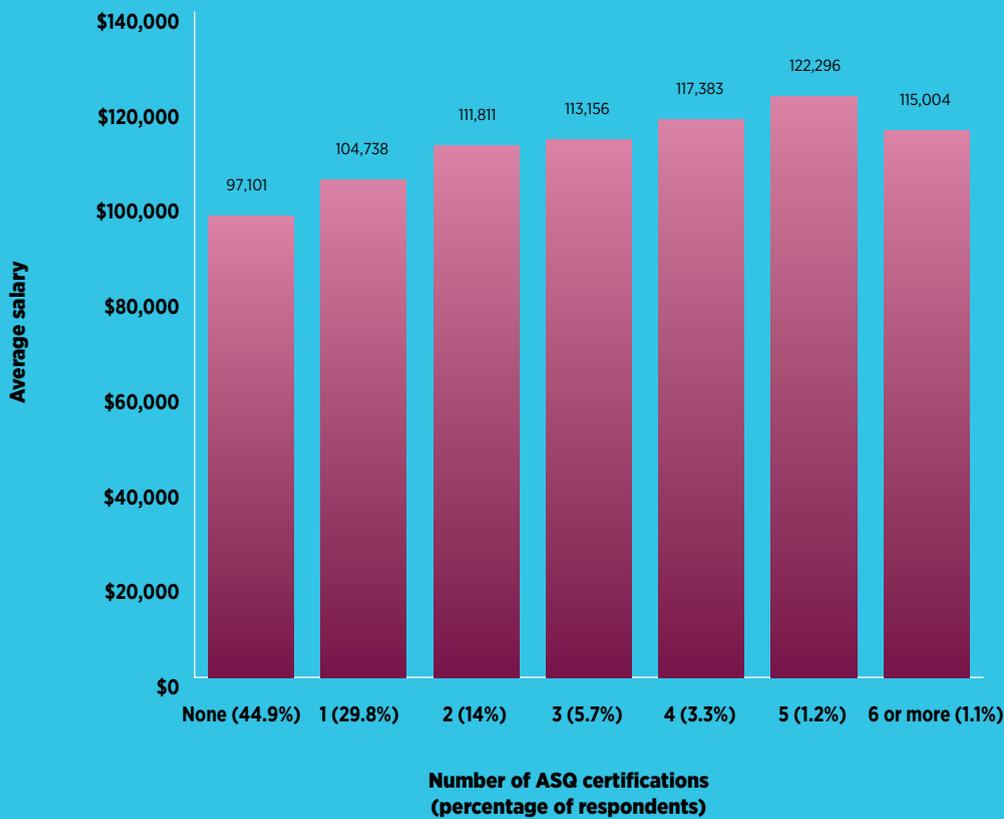


Figure 1 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees

Other combinations of job title and certification are less obviously matched, such as the title of manager and the ASQ quality engineer certification, which brings a 14.3% premium to people who hold that title and that certification. Note that Table 1 views U.S. and Canadian respondents together, showing their salaries in U.S. dollars.

The remaining tables in this section view U.S. and Canadian responses separately. Tables 2 (U.S. respondents; pp. 25-26) and 3 (Canadian respondents; p. 27) show average salaries by job title and ASQ certification.

Of course, ASQ is not the only certifying body in the world of quality. The

affiliated organization Exemplar Global also provides certifications respected worldwide, including several that are specifically designed for countries outside North America. Some of Exemplar Global's certifications are tied to compliance requirements of Australia and some Asian countries.

But Exemplar Global certifications also are held and valued in North America. Table 4 (p. 28) shows the average salaries of holders of those certifications by job title in the United States. Unfortunately, the survey's response rate from Canada (Table 5, p. 29) was too low this year to produce a particularly useful table of similar results.

TABLE 1

Differences in salary for ASQ certification

Job title	ASQ certification	Respondents holding certification	Average without certification	Average with certification	Salary premium, (U.S. \$)	Percentage premium
Manager	Manager of quality/organizational excellence	211	\$102,634	\$116,065	\$13,431	13.1%
Quality engineer	Manager of quality/organizational excellence	54	87,361	101,471	14,110	16.2
Vice president/executive	Manager of quality/organizational excellence	30	190,541	220,667	30,126	15.8
Auditor	Quality auditor	79	76,275	94,578	18,302	24
Manager	Quality auditor	285	102,886	111,878	8,992	8.7
Quality engineer	Quality auditor	139	86,469	95,724	9,256	10.7
Manager	Quality engineer	220	102,285	116,870	14,585	14.3
Process/manufacturing/project engineer	Quality engineer	30	86,615	104,960	18,345	21.2
Quality engineer	Quality engineer	225	84,504	95,357	10,853	12.8
Manager	Reliability engineer	25	104,539	135,983	31,444	30.1
Manager	Six Sigma Black Belt	88	103,748	122,346	18,599	17.9
Quality engineer	Six Sigma Black Belt	36	87,815	101,568	13,753	15.7

Table 1 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, χ Canadian employees

Note: All salaries are noted in U.S. dollars. Canadian salaries were converted using the exchange rate in effect on Aug. 1, 2020.

TABLE 2—PART A

Salary by ASQ certification and job title—U.S. respondents

	Biomedical auditor	Calibration technician	Food safety and quality auditor	Manager of quality/organizational excellence	Pharmaceutical GMP professional	Quality auditor	Quality engineer	Quality improvement associate	Quality inspector
All respondents	\$127,535 ⁶⁶	\$80,273 ⁴⁵	\$111,984 ³⁴	\$128,140 ⁴⁷¹	\$128,692 ³⁰	\$110,667 ⁸³¹	\$114,015 ⁶⁹¹	\$87,189 ¹⁴⁷	\$79,904 ⁹⁵
Analyst	—	—	—	—	—	77,939 ¹⁴	84,500 ⁵	72,390 ⁸	49,977 ²
Associate	—	—	—	—	—	62,545 ⁶	76,424 ³	62,732 ⁵	58,250 ²
Auditor	113,474 ³	—	91,021 ³	103,206 ¹¹	119,681 ⁶	95,367 ⁷⁸	116,833 ¹⁴	68,410 ¹¹	82,250 ⁴
Black Belt	—	—	—	123,500 ²	—	116,000 ²	114,000 ³	—	—
Calibration technician	—	72,110 ⁶	—	—	—	—	—	—	—
Champion	—	—	—	124,167 ³	—	—	134,500 ²	—	—
Consultant	120,500 ²	—	—	138,556 ⁹	—	138,781 ¹⁵	125,667 ³	—	—
Coordinator	—	—	—	82,100 ²	—	65,636 ¹¹	65,250 ⁴	71,500 ²	—
Director	153,700 ¹⁵	—	135,500 ¹⁰	144,847 ⁹⁶	180,000 ⁷	140,433 ⁹⁸	144,856 ⁶³	129,519 ¹⁶	126,667 ³
Educator/instructor	—	—	—	155,400 ⁴	—	68,500 ²	181,667 ³	64,667 ³	—
Green Belt	—	—	—	—	—	—	—	—	—
Inspector	—	—	—	—	—	82,667 ³	—	—	64,652 ⁹
Manager	120,143 ¹⁹	98,878 ¹²	117,429 ⁷	118,306 ¹⁹⁸	109,629 ⁹	112,663 ²⁷⁸	118,049 ²¹³	92,811 ³⁵	95,547 ²²
Master Black Belt	—	—	—	120,917 ⁶	—	113,833 ³	134,250 ⁶	—	—
Other	—	—	—	89,850 ⁴	—	98,067 ⁶	102,900 ⁵	73,471 ³	—
Process/manufacturing/project engineer	—	—	—	113,333 ³	—	108,089 ⁹	105,993 ²⁹	83,000 ²	—
Quality engineer	117,721 ¹⁴	65,444 ⁹	90,969 ⁴	103,283 ⁵²	116,667 ³	95,724 ¹³⁹	96,213 ²²⁰	84,651 ²⁹	76,396 ²⁵
Reliability/safety engineer	—	—	—	122,579 ⁴	—	118,000 ²	136,146 ⁹	—	—
Software quality engineer	145,000 ²	—	—	—	—	131,154 ⁵	129,685 ⁸	—	—
Specialist	—	—	98,875 ⁴	113,803 ¹⁴	100,250 ⁴	88,279 ⁴⁷	129,473 ¹¹	63,073 ¹¹	63,250 ²
Statistician	—	—	—	137,500 ²	—	130,000 ²	141,192 ⁶	—	—
Supervisor	86,500 ²	66,475 ⁴	—	104,533 ⁹	—	91,204 ¹⁸	91,725 ¹⁴	75,143 ⁷	77,337 ⁷
Supplier quality engineer/professional	104,625 ⁴	—	—	114,453 ¹⁹	—	104,824 ⁴⁸	107,447 ⁴⁶	79,167 ³	81,333 ³
Technician	—	62,857 ⁷	—	—	—	51,419 ⁹	56,498 ⁴	52,947 ⁵	62,302 ¹¹
Vice president/executive	176,667 ³	—	—	220,667 ³⁰	—	—	206,863 ¹⁸	228,333 ³	111,500 ²

Table 2 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees

An em-dash (—) may indicate that there were no data, or there were data from one respondent, which was suppressed to protect privacy.

Superscript numbers denote the number of respondents.

SECTION 2: Salary by Certifications

TABLE 2—PART B

Salary by ASQ certification and job title—U.S. respondents

	Quality process analyst	Quality technician	Reliability engineer	Six Sigma Yellow Belt	Six Sigma Green Belt	Six Sigma Black Belt	Software quality engineer	Supplier quality professional
All respondents	\$89,269 ⁷⁵	\$85,334 ¹⁹⁵	\$141,418 ⁸⁴	\$79,153 ⁵³	\$106,660 ²²⁴	\$122,741 ²⁸⁴	\$132,118 ⁶⁴	\$110,895 ⁷⁵
Analyst	69,999 ⁹	—	—	61,000 ³	78,723 ⁵	86,033 ⁶	115,778 ²	—
Associate	40,880 ²	—	—	58,500 ²	—	—	—	—
Auditor	81,035 ⁵	88,500 ⁸	—	75,450 ⁴	78,360 ⁵	—	123,190 ²	133,432 ²
Black Belt	—	102,500 ²	—	—	94,283 ⁵	94,636 ²⁵	—	—
Calibration technician	—	—	—	—	—	—	—	—
Champion	—	—	—	—	—	—	—	—
Consultant	—	—	—	—	102,257 ²	126,409 ¹¹	122,500 ²	—
Coordinator	—	69,067 ³	—	—	85,570 ⁶	—	—	—
Director	129,800 ⁵	133,252 ¹²	171,409 ¹¹	—	150,774 ²⁴	138,495 ³⁷	143,750 ⁴	160,500 ¹⁰
Educator/instructor	—	55,000 ²	—	127,500 ²	155,000 ²	135,000 ²	—	—
Green Belt	—	—	—	—	80,838 ¹⁰	—	—	—
Inspector	—	68,335 ⁴	—	—	40,300 ²	—	—	—
Manager	94,386 ²⁰	100,447 ⁴⁵	140,329 ²³	83,000 ¹⁰	111,871 ⁷¹	124,146 ⁸³	133,298 ¹⁴	114,292 ¹⁵
Master Black Belt	—	—	—	—	—	135,273 ²²	—	—
Other	—	82,953 ⁴	—	73,004 ³	101,138 ³	80,700 ²	—	—
Process/manufacturing/project engineer	76,667 ³	85,000 ⁵	108,000 ³	63,750 ⁴	100,614 ⁷	108,475 ¹⁵	—	—
Quality engineer	85,315 ¹⁴	78,582 ⁵⁰	125,375 ⁸	73,208 ⁷	90,740 ⁴⁴	104,454 ³⁴	114,315 ¹⁰	96,553 ¹⁷
Reliability/safety engineer	—	—	133,719 ²⁰	—	116,008 ²	—	112,500 ²	—
Software quality engineer	—	—	—	—	94,250 ²	89,575 ²	124,997 ¹⁶	—
Specialist	65,220 ⁵	78,900 ⁵	118,500 ⁴	72,200 ⁵	96,231 ⁷	107,857 ⁷	—	113,937 ⁴
Statistician	—	—	142,743 ³	—	—	156,638 ⁵	134,020 ²	—
Supervisor	74,250 ²	80,409 ¹⁴	147,500 ²	82,875 ⁴	76,228 ⁶	120,750 ⁴	—	—
Supplier quality engineer/professional	—	95,938 ⁸	115,101 ²	—	104,152 ¹³	112,313 ⁸	115,000 ²	96,929 ¹⁷
Technician	54,333 ³	53,285 ²⁹	—	65,888 ²	—	59,000 ²	—	—
Vice president/executive	167,500 ²	175,000 ²	201,250 ⁴	—	204,000 ⁵	193,928 ¹⁵	266,250 ⁴	170,000 ²

Table 2 includes results for: \bar{x} Full-time employees, $_$ Part-time employees, \bar{x} U.S. employees, $_$ Canadian employees

An em-dash (—) may indicate that there were no data, or there were data from one respondent, which was suppressed to protect privacy.

Superscript numbers denote the number of respondents.

MONEY TALKS

In what way do you feel your productivity has been affected because you were working away from the workplace?



With my entire family also relegated to being at home, I often have broken away from work activities to help my children with their school work. I also find it is harder for me to stay focused and engaged with operations when I am physically in the plant on a limited basis.

Curt Swanson

Quality manager | PennEngineering | Danboro, PA

TABLE 3

Salary by ASQ certification and job title—Canadian respondents

	Food safety and quality auditor	Manager of quality/organizational excellence	Quality auditor	Quality engineer	Quality technician	Reliability engineer	Six Sigma Green Belt	Six Sigma Black Belt
All respondents	\$95,500 ⁴	\$102,393 ²⁰	\$86,995 ¹⁵	\$90,023 ¹⁹	\$70,503 ¹⁵	\$95,500 ²	\$88,137 ¹⁰	\$103,357 ¹⁴
Coordinator	—	—	—	61,000 ²	—	—	—	—
Director	—	121,333 ³	—	—	—	—	—	127,500 ²
Inspector	—	—	—	—	—	—	—	—
Manager	90,667 ³	106,297 ¹³	102,143 ⁷	102,543 ⁷	87,750 ⁴	95,500 ²	87,600 ⁵	123,300 ⁵
Process/manufacturing/project engineer	—	—	—	—	—	—	—	—
Quality engineer	—	72,500 ²	—	76,927 ⁵	49,661 ²	—	—	70,000 ²
Specialist	—	—	82,559 ²	—	—	—	—	—
Supervisor	—	—	83,500 ²	—	—	—	—	—
Technician	—	—	—	—	49,667 ³	—	—	—

Table 3 includes results for: x Full-time employees, _ Part-time employees, _ U.S. employees, x Canadian employees (Canadian dollars). An em-dash (—) may indicate that there were no data, or there were data from one respondent, which was suppressed to protect privacy. Superscript numbers denote the number of respondents.

SECTION 2: Salary by Certifications

TABLE 4

Salary by Exemplar Global certifications—U.S. respondents

Table 4 Part A	Certified management system specialist	Environmental system auditor	Environmental system lead auditor	Internal auditor	ISO 45001 occupational health and safety lead auditor	ISO 50001 lead auditor	Medical device quality management system ISO 13485 auditor
All respondents	\$113,333³	\$82,800⁵	\$102,393¹⁴	\$94,632⁹²	\$106,300⁵	\$73,500³	\$101,615¹⁷
Auditor	—	—	69,000²	84,333⁶	—	—	—
Coordinator	—	—	—	66,250⁴	—	—	—
Director	—	—	—	134,917⁶	—	—	—
Manager	112,500²	86,000³	108,389⁹	100,439⁴⁰	112,875⁴	—	107,636⁷
Process/manufacturing/project engineer	—	—	—	—	—	—	—
Quality engineer	—	—	—	92,395¹⁹	—	62,500²	105,667³
Specialist	—	—	—	82,060⁷	—	—	—
Supervisor	—	—	—	71,250²	—	—	—
Supplier quality engineer/professional	—	—	—	95,250⁴	—	—	—
Table 4 Part B	Medical device quality management system ISO 13485 lead auditor	Medical device single audit program internal auditor	Occupational health and safety lead auditor	Process safety management lead auditor	Quality management system auditor	Quality management system lead auditor	Quality management system master auditor
All respondents	\$118,480⁴³	\$95,150³	\$97,625⁴	\$77,500³	\$96,496⁵⁷	\$101,875¹⁶⁹	\$90,900⁵
Analyst	88,500²	—	—	—	—	—	—
Auditor	106,712²	—	—	—	73,000³	95,123¹²	—
Consultant	—	—	—	—	123,298²	117,755³	—
Coordinator	—	—	—	—	63,500²	57,000⁴	—
Director	135,933⁶	—	—	—	105,500⁶	126,062¹⁸	—
Manager	116,385¹⁸	90,225²	99,500³	76,750²	98,151²¹	104,642⁷²	78,333³
Process/manufacturing/project engineer	—	—	—	—	—	90,000²	—
Quality engineer	102,400⁵	—	—	—	98,317¹¹	98,492²³	—
Specialist	—	—	—	—	88,500²	81,840⁵	—
Supervisor	—	—	—	—	—	89,112³	—
Supplier quality engineer/professional	90,500²	—	—	—	90,300⁵	104,969¹⁷	—
Technician	—	—	—	—	55,333³	50,500⁴	—
Vice president/executive	211,667³	—	—	—	—	—	—

Table 4 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees

An em-dash (—) may indicate that there were no data, or there were data from one respondent, which was suppressed to protect privacy.

Superscript numbers denote the number of respondents.

「MONEY TALKS」



In what way has your workplace changed permanently due to COVID-19?

I believe that telework will become more of a fixture in the future now that employees have proven they can conduct their work remotely. If organizations become more comfortable with this model, they will be able to draw from a more diverse, global talent pool.

Rich Albert

Product delivery process/supplier quality supervisor
John Deere Ottumwa Works
Ottumwa, IA

TABLE 5

Salary by Exemplar Global certifications for Canadian respondents

	Environmental system lead auditor	Internal auditor	Quality management system auditor	Quality management system lead auditor
All respondents	\$97,433 ³	\$86,306 ¹¹	\$73,561 ⁶	\$80,431 ¹⁵
Manager	97,433 ³	93,600 ⁸	112,750 ²	89,166 ¹⁰

Table 5 includes results for: x Full-time employees, _ Part-time employees, _ U.S. employees, x Canadian employees (Canadian dollars)

Superscript numbers denote the number of respondents.

SALARY SURGE WITH SIX SIGMA TRAINING

In 1995, you might have been forgiven for thinking “Six Sigma” was just another management buzz-phrase, a pretty sound masking a lack of substance. That was the year Jack Welch adopted Six Sigma tools and techniques at General Electric. And the rest is history—that is, a history of phenomenal success in achieving quality.

As this section shows, the professionals who take Six Sigma training and apply it at their organizations are well-rewarded for their contributions. As Figure 1 details, U.S. respondents who’ve completed any Six Sigma training earned an average of \$111,412, a sizable boost of \$16,411 over those without any Six Sigma training. For Canadian respondents, that difference is \$15,869 (Canadian dollars).

Figure 2—which combines U.S. and Canadian responses and reports results in U.S. dollars—shows a four-year history of average salaries by the highest level of Six Sigma training attained. This year’s results show a clear stair-step pattern of ascending earnings for higher levels of training above the Yellow Belt.

The salary boost is especially great for those who take the Master Black Belt (MBB) level of training. In this year’s data, the premium for MBBs over holders of Black Belt (BB) training is \$26,123 (\$144,779 vs. \$118,656). Similarly, the BB brings a healthy premium over the Green Belt of \$15,761. These and the other premiums that come with Six Sigma Belts are shown in Table 1. Due to the small number of respondents who have completed the champion and executive levels

FIGURE 1

Salary by Six Sigma training

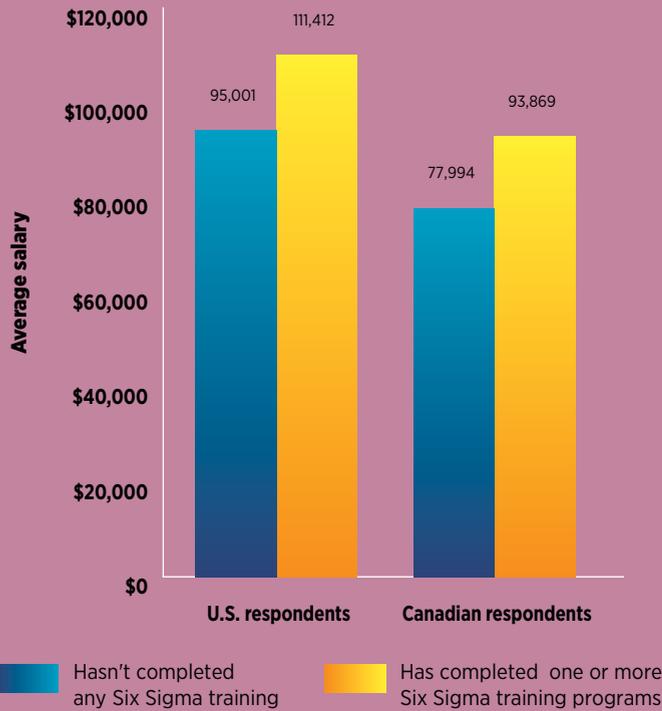


Figure 1 includes results for: \bar{x} Full-time employees and consultants, \bar{y} Part-time employees and consultants, \bar{x} U.S. employees, \bar{x} Canadian employees (Canadian dollars)

U.S. respondents who've completed any Six Sigma training earned an average of \$111,412, a sizable boost of \$16,411 over those without Six Sigma. For Canadian respondents, that difference is \$15,869 (Canadian dollars).

TABLE 1

Salary increases with successive levels of Six Sigma training

	2017	2018	2019	2020
Master Black Belt (3.7%)	\$34,354	\$24,539	\$29,196	\$26,123
Black Belt (17.6%)	12,494	12,993	14,962	15,761
Green Belt (24.6%)	8,524	10,184	8,515	10,736
Yellow Belt (8.1%)	1,971	569	1,352	(880)
None (46%)	—	—	—	—

Table 1 includes results for: \bar{x} Full-time employees, \bar{y} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees

All salaries are noted in U.S. dollars. Canadian salaries were converted using the exchange rate in effect on July 21, 2020.

of training, they aren't considered in this analysis.

Table 2 (p. 33) breaks down salaries by Six Sigma training and job title for full-time professionals in the United States and Canada viewed together. Along with the average salary in each box, the superscripted number shows how many respondents fit in that category.

The table reveals that even when viewed by individual job title, salary tends to increase strongly with higher levels of Six Sigma training. Among managers—the most populous job title—holders of Green Belt training earn \$106,790, which is 9.4% more than the \$97,654 average paycheck for managers without Six Sigma.

FIGURE 2

Salary by highest level of Six Sigma training— U.S. and Canadian respondents

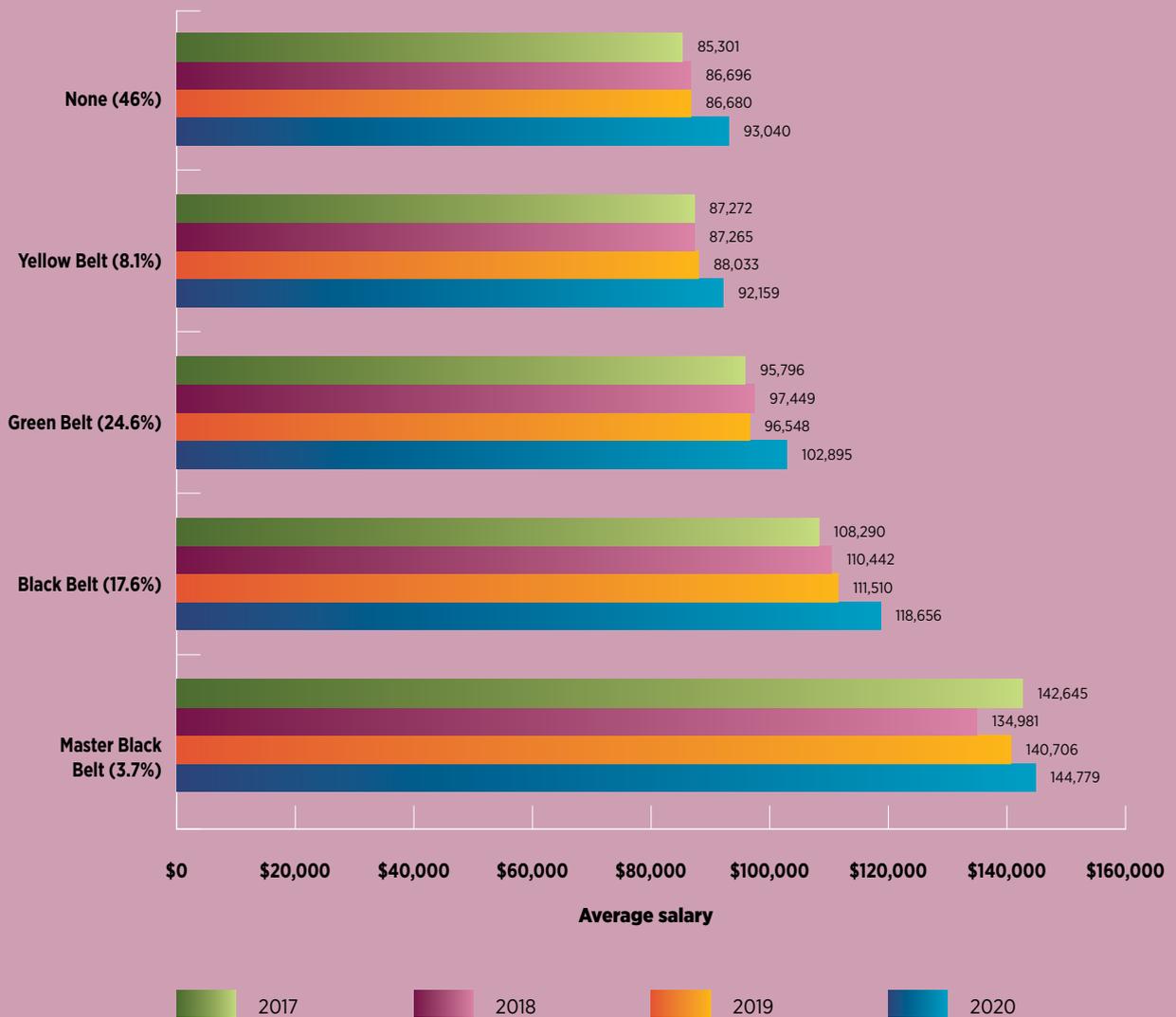


Figure 1 includes results for: χ Full-time employees and consultants, $_$ Part-time employees and consultants, χ U.S. employees, χ Canadian employees

All salaries are noted in U.S. dollars. Canadian salaries were converted using the exchange rate in effect on July 21, 2020.

TABLE 2

Salary by Six Sigma training for job titles— U.S. and Canadian respondents

	None	Yellow Belt	Green Belt	Black Belt	Master Black Belt	Champion	Executive
All respondents	\$93,040 ^{1,526}	\$92,159 ²⁶⁸	\$102,895 ⁸¹⁵	\$118,656 ⁵⁸⁴	\$144,779 ¹²⁴	\$140,056 ¹⁹	\$151,292 ¹²
Analyst	68,582 ⁵⁸	76,372 ⁹	74,465 ¹⁷	90,781 ¹⁴	—	—	—
Associate	51,026 ²⁴	74,375 ⁴	54,506 ⁴	86,000 ²	—	—	—
Auditor	84,738 ⁷³	81,801 ¹⁰	95,731 ³⁴	101,400 ⁵	—	—	—
Black Belt	—	—	—	95,817 ³⁶	122,500 ²	—	—
Calibration technician	59,684 ¹⁵	63,886 ³	—	—	—	—	—
Champion	—	—	101,250 ⁴	135,375 ⁴	—	—	—
Consultant	131,746 ²⁰	116,000 ⁴	123,551 ¹⁴	113,869 ¹⁵	146,000 ⁴	—	—
Coordinator	63,640 ⁵⁶	60,921 ⁷	74,042 ¹⁰	54,500 ²	—	—	—
Director	138,262 ¹³⁶	158,245 ¹⁹	136,758 ⁷⁴	141,350 ⁹⁰	160,942 ²⁴	146,571 ⁷	138,167 ³
Educator/instructor	90,712 ⁷	56,667 ³	147,750 ⁴	129,786 ⁷	170,500 ⁴	—	—
Green Belt	—	—	75,631 ¹⁷	—	—	—	—
Inspector	52,637 ³⁹	59,556 ⁹	59,600 ⁶	—	—	—	—
Manager	97,654 ⁴⁵¹	101,581 ⁷⁶	106,790 ²⁵⁶	118,863 ²⁰³	131,317 ²⁷	134,723 ⁷	—
Master Black Belt	—	—	—	115,250 ⁴	135,738 ³⁵	—	—
Other	82,135 ²⁶	100,200 ³	76,845 ⁷	101,375 ⁴	—	—	—
Process/manufacturing/project engineer	91,445 ²³	80,600 ⁵	89,032 ²³	100,967 ²⁵	127,500 ²	97,500 ²	—
Quality engineer	84,675 ²²⁴	85,463 ⁴³	89,761 ¹⁹⁴	96,582 ⁸⁴	110,167 ⁶	—	—
Reliability/safety engineer	125,577 ¹⁸	124,333 ³	98,411 ⁷	130,267 ⁷	—	—	—
Software quality engineer	109,111 ¹⁸	126,177 ⁶	131,429 ⁷	96,817 ³	—	—	—
Specialist	76,517 ¹¹⁷	81,076 ²⁵	90,477 ³⁷	105,265 ¹⁴	125,000 ²	—	—
Statistician	139,709 ⁷	—	—	156,638 ⁵	176,350 ²	—	—
Supervisor	76,770 ⁵³	74,418 ¹²	76,828 ¹⁸	107,000 ⁴	—	—	—
Supplier quality engineer/professional	87,331 ³⁶	98,322 ¹¹	109,697 ⁴³	108,777 ²⁸	—	—	—
Technician	49,850 ⁷⁶	54,431 ¹⁶	57,834 ¹⁴	34,000 ²	—	—	—
Vice president/executive	200,403 ⁴⁷	—	190,958 ²⁴	202,828 ²⁶	190,132 ¹³	—	163,000 ⁵

Table 2 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, \times Canadian employees

All salaries are noted in U.S. dollars. Canadian salaries were converted using the exchange rate in effect on July 21, 2020.

An em-dash (—) may indicate that there were no data, or there were data from one respondent, which was suppressed to protect privacy.

Superscript numbers denote the number of respondents.

PAYS TO STAY IN QUALITY

Quality, as survey respondents have shown by their levels of job satisfaction, is a good profession to get into. Even better is to stick with it. Compensation clearly rises with the number of years respondents have spent in the quality field.

Figure 1 makes this clear. Serious benefits come with increased quality experience. For U.S. respondents who stay in the profession for more than six years,

that extra experience brings a premium of \$9,590 per year. That is, \$89,781 versus the \$80,191 earned, on average, by people with more than three but not more than six years in quality.

Figure 2 (p. 36) shows a similar bump at the six-year mark for Canadian respondents.

Figure 3 (p. 37) tells an interesting story: The higher-paying job titles strongly tend to go to those with more years of experience

「MONEY TALKS」

In what way do you feel your productivity has been affected because you were working away from the workplace?



I've been in the office two to four days a week since the onset of the pandemic, and working from home the rest of the time. It has not affected my productivity. If anything, it is better because there is a greater sense of urgency for every project.

Diana Evans
Director | Continuous improvement
The Schroer Group | North Canton, OH

FIGURE 1

Salary by years in quality—U.S. respondents

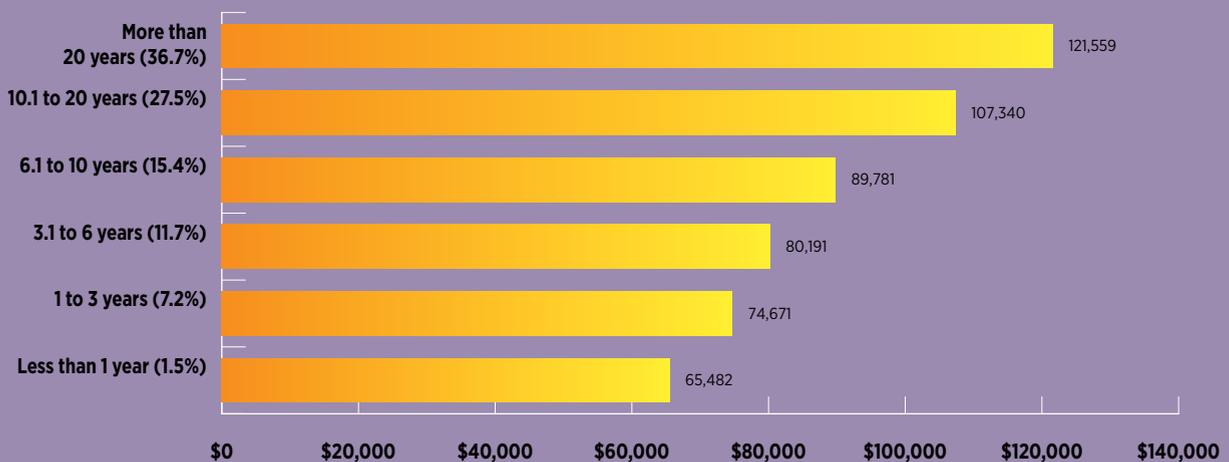


Figure 1 includes results for: Full-time employee, Part-time employees, U.S. employees, Canadian employees

SECTION 4: Salary by Years of Experience in Quality

For U.S. respondents who stay in the profession beyond six years, that extra experience brings a premium of \$9,590 per year.

in quality. At the top are statisticians and vice presidents/executives—the highest paid titles.

For now, put aside the statistician category because the number of respondents in that group is small. Of the other top-paid professionals, vice presidents/executives, 64.7% have been in the quality field for more than 20 years. Compare this to the lower-paid positions near the bottom of the chart.

The lower salaries there correspond to far fewer professionals with many years of quality experience.

The takeaway from Figure 3: Your years in quality are likely the ticket to higher-paid positions.

Table 1 (pp. 38-41) details salaries by years of quality experience within job titles for U.S. and Canadian respondents together. The salaries in this table are expressed in U.S. dollars.

FIGURE 2

Salary by years in quality for Canadian respondents

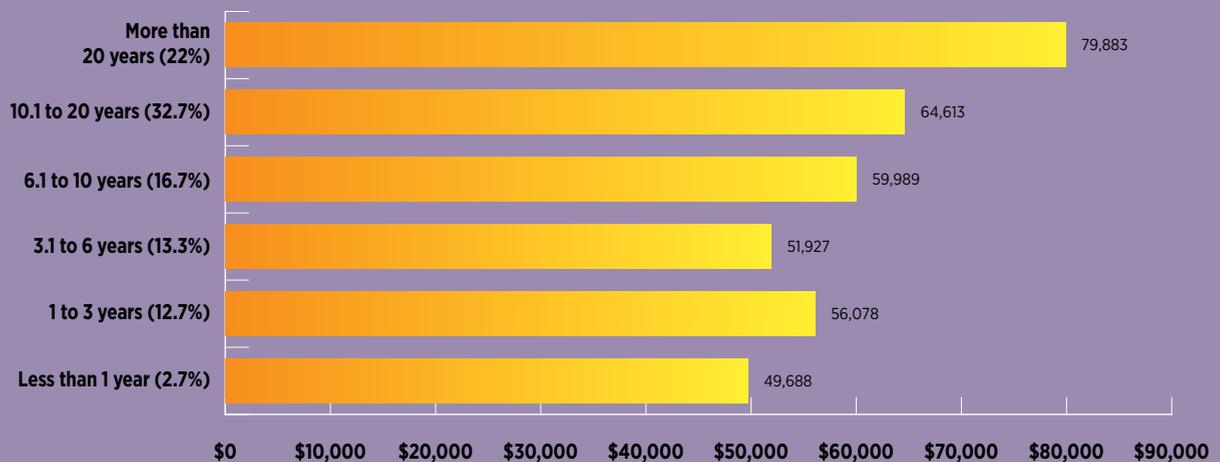


Figure 2 includes results for: \times Full-time employees, $_$ Part-time employees, $_$ U.S. employees, \times Canadian employees (Canadian dollars)

FIGURE 3

Years of experience in quality by job title— U.S. and Canadian respondents

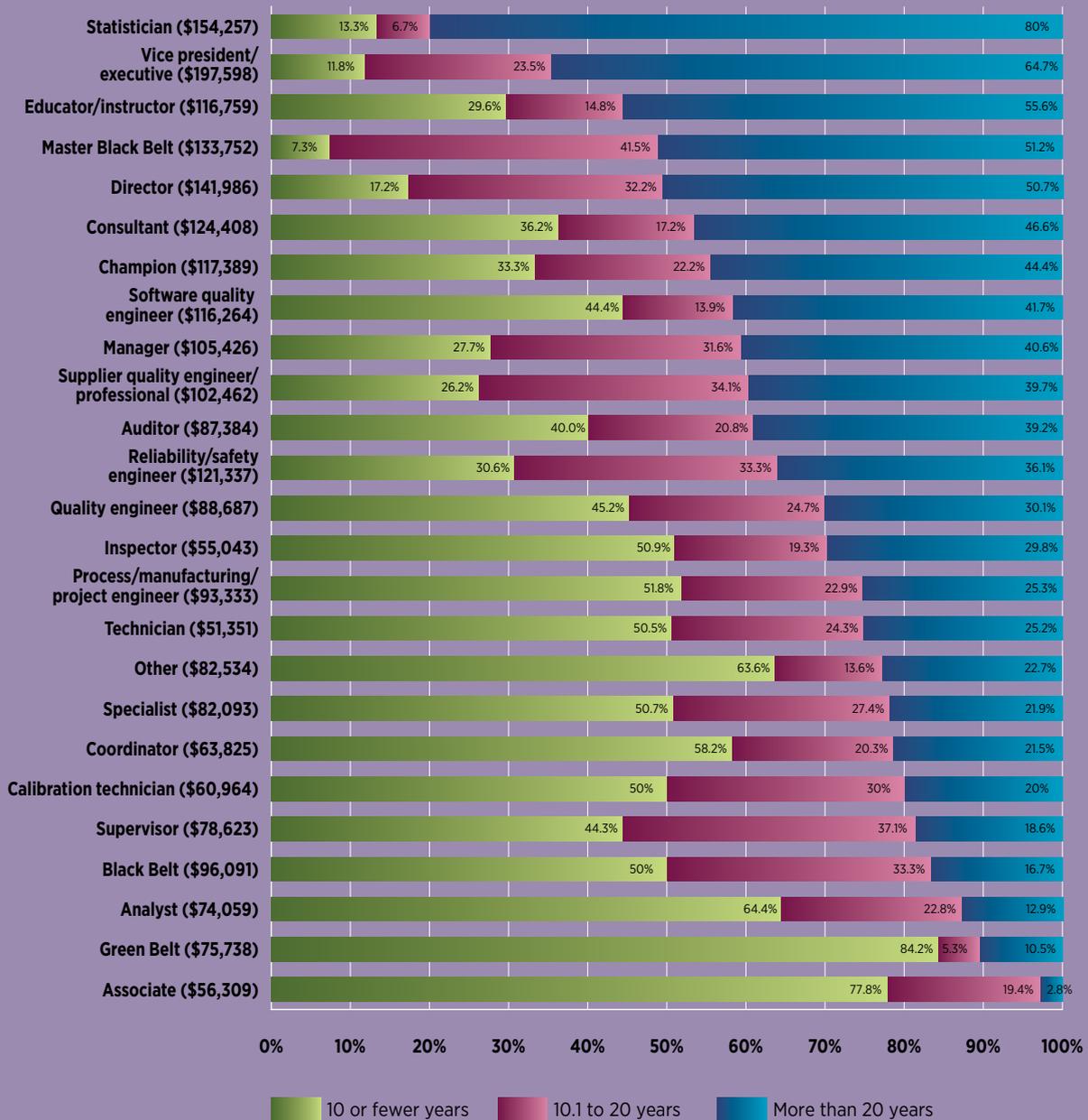


Figure 3 includes results for: \bar{x} Full-time employees, $_$ Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees
 Data are sorted in descending order by the percentage of respondents with more than 20 years of experience in quality. Percentages have been rounded. All salaries are shown in U.S. dollars. Canadian salaries were converted using the exchange rate in effect on July 21, 2020.

SECTION 4: Salary by Years of Experience in Quality

TABLE 1 - CONTINUED THROUGH P. 41

Salary by years in quality and job title— U.S. and Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Average	Median
Analyst	10 or fewer years	\$26,250	\$130,000	\$19,100	65	\$67,916	\$65,850
	10.1 to 20 years	53,000	155,000	28,473	23	86,082	78,000
	More than 20 years	40,000	125,020	25,427	13	83,502	82,000
Associate	10 or fewer years	22,000	110,000	22,139	28	54,996	50,375
	10.1 to 20 years	38,000	75,000	11,446	7	57,999	60,000
	More than 20 years				n < 3		
Auditor	10 or fewer years	33,000	169,129	22,800	52	66,980	64,000
	10.1 to 20 years	47,000	150,000	24,627	27	88,722	86,000
	More than 20 years	52,000	185,000	32,414	51	107,480	107,000
Black Belt	10 or fewer years	42,000	142,000	23,103	21	89,483	92,000
	10.1 to 20 years	62,400	142,000	20,261	14	101,368	98,000
	More than 20 years	52,500	137,000	29,800	7	105,357	115,000
Calibration technician	10 or fewer years	30,680	87,360	18,443	10	52,122	44,340
	10.1 to 20 years	49,400	98,000	21,916	6	70,343	61,330
	More than 20 years	42,000	95,000	22,106	4	69,000	69,500
Champion	10 or fewer years	65,000	169,000	52,157	3	114,667	110,000
	10.1 to 20 years				n < 3		
	More than 20 years	91,000	169,000	34,932	4	121,250	112,500
Consultant	10 or fewer years	62,250	157,000	26,246	21	101,696	96,265
	10.1 to 20 years	69,281	237,800	46,650	10	133,208	135,000
	More than 20 years	63,000	300,000	45,289	27	138,813	139,200

Table 1 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees
 All salaries are shown in U.S. dollars. Canadian salaries have been converted using the exchange rate in effect on July 21, 2020.
 n < 3 indicates a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

TABLE 1 — CONTINUED FROM P. 38

Salary by years in quality and job title— U.S. and Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Average	Median
Coordinator	10 or fewer years	\$35,000	\$135,000	\$18,203	46	\$57,283	\$53,000
	10.1 to 20 years	42,000	135,000	22,075	16	67,825	65,100
	More than 20 years	40,000	150,000	31,162	17	77,765	80,000
Director	10 or fewer years	50,000	250,000	40,846	63	124,116	120,000
	10.1 to 20 years	74,000	232,942	37,162	118	139,211	135,000
	More than 20 years	45,000	300,000	40,067	186	149,800	149,064
Educator/ instructor	10 or fewer years	50,000	106,000	21,010	8	72,625	66,500
	10.1 to 20 years	64,000	180,000	48,794	4	119,775	117,550
	More than 20 years	75,000	255,000	48,273	15	139,492	130,000
Green Belt	10 or fewer years	57,000	111,000	16,279	16	76,252	73,500
	10.1 to 20 years				n < 3		
	More than 20 years				n < 3		
Inspector	10 or fewer years	24,000	115,000	18,354	29	47,827	42,000
	10.1 to 20 years	35,000	85,000	17,893	11	56,277	51,000
	More than 20 years	34,000	110,000	19,392	17	66,552	65,000
Manager	10 or fewer years	24,960	220,000	27,972	293	93,745	92,000
	10.1 to 20 years	30,000	235,000	31,497	334	107,448	105,000
	More than 20 years	30,000	295,000	31,768	429	111,830	107,850
Master Black Belt	10 or fewer years	112,884	168,000	31,228	3	131,961	115,000
	10.1 to 20 years	80,000	149,000	18,979	17	121,265	125,000
	More than 20 years	106,500	192,000	24,947	21	144,117	144,000
Other	10 or fewer years	26,000	145,000	29,176	28	72,947	63,500
	10.1 to 20 years	52,000	160,000	36,283	6	99,583	95,250
	More than 20 years	50,000	160,000	37,603	10	99,150	90,500

Table 1 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees
 All salaries are shown in U.S. dollars. Canadian salaries have been converted using the exchange rate in effect on July 21, 2020.
 n < 3 indicates a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

SECTION 4: Salary by Years of Experience in Quality

TABLE 1 - CONTINUED FROM P. 39

Salary by years in quality and job title— U.S. and Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Average	Median
Process/ manufacturing/ project engineer	10 or fewer years	\$31,500	\$130,000	\$21,562	43	\$81,139	\$84,500
	10.1 to 20 years	60,000	162,000	25,110	19	103,000	102,000
	More than 20 years	63,000	156,000	26,892	21	109,556	108,000
Quality engineer	10 or fewer years	33,241	150,000	17,821	260	79,491	79,750
	10.1 to 20 years	41,250	157,000	24,444	142	89,058	87,000
	More than 20 years	45,000	255,680	30,434	173	102,204	96,000
Reliability/safety engineer	10 or fewer years	60,377	155,000	31,516	11	104,849	98,562
	10.1 to 20 years	46,500	165,000	31,708	12	119,389	122,500
	More than 20 years	60,000	177,800	29,308	13	137,086	138,000
Software quality engineer	10 or fewer years	60,000	160,000	26,817	16	114,200	118,500
	10.1 to 20 years	97,129	130,000	14,053	5	108,326	101,000
	More than 20 years	59,150	200,000	36,520	15	121,113	114,471
Specialist	10 or fewer years	33,000	135,000	21,607	102	70,678	70,000
	10.1 to 20 years	40,000	157,000	31,954	55	89,791	90,000
	More than 20 years	51,500	176,000	33,465	44	98,935	87,500
Statistician	10 or fewer years				n < 3		
	10.1 to 20 years				n < 3		
	More than 20 years	115,000	222,700	40,770	12	161,238	145,000
Supervisor	10 or fewer years	43,000	165,000	22,877	43	70,426	68,000
	10.1 to 20 years	38,381	165,000	25,755	36	83,417	78,221
	More than 20 years	54,000	121,000	18,567	18	88,616	90,838

Table 1 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, χ Canadian employees

All salaries are shown in U.S. dollars. Canadian salaries have been converted using the exchange rate in effect on July 21, 2020.

n < 3 indicates a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

「MONEY TALKS」



What else would you like us to know about how COVID-19 has changed your work life?

I feel less in control and with even less authority by not being physically present in my plants.

Crystal Moore

Area quality manager | Packaging Corp. of America | Texas and Colorado

TABLE 1 - CONTINUED FROM P. 40

Salary by years in quality and job title— U.S. and Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Average	Median
Supplier quality engineer/professional	10 or fewer years	\$58,000	\$121,000	\$17,435	33	\$81,568	\$76,000
	10.1 to 20 years	70,000	185,000	26,682	43	107,571	105,000
	More than 20 years	71,000	160,000	20,946	50	111,858	110,013
Technician	10 or fewer years	21,000	76,000	12,422	56	48,941	50,000
	10.1 to 20 years	30,000	75,000	12,875	27	49,646	48,500
	More than 20 years	32,261	100,000	14,578	28	57,814	54,000
Vice president/executive	10 or fewer years	85,000	280,000	53,233	14	149,643	151,000
	10.1 to 20 years	93,000	350,000	66,698	28	190,683	182,500
	More than 20 years	72,000	400,000	60,984	77	208,832	205,000

Table 1 includes results for: \bar{x} Full-time employees, $_$ Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees
 All salaries are shown in U.S. dollars. Canadian salaries have been converted using the exchange rate in effect on July 21, 2020.
 $n < 3$ indicates a row contains fewer than three respondents, and data have been suppressed to shield personally identifiable information.

MORE COLLEGE, MORE CASH

**In the
United States,
respondents
with master's
degrees (33.2%)
bring home
paychecks
averaging
\$120,282.**

Section 4 showed that staying in the quality profession is an essential ingredient in the recipe for a substantial salary.

Experience combined with the right ASQ certifications and Six Sigma training go a long way toward fattening the wallet.

This section examines another important ingredient: formal education. For years, the QP Salary Survey has revealed the more educated quality professionals experience the most pleasing paydays.

Figure 1 shows this clearly for U.S. respondents. The stair-step pattern demonstrates clearly that the more education you bring to your work, the more you'll earn. Respondents whose highest level of education is a bachelor's degree earned on average \$99,061 per year, not far below the average of \$103,512 for the entire profession. But those holding a master's degrees, who make up 33.2% of U.S. respondents, bring home annual salaries averaging \$120,282.

In Canada (Figure 2), specialized vocational/technical degrees seem highly valued. The 18% of respondents who have

completed two-year programs, which includes those special degrees, are paid nearly as well as Canadians with bachelor's and master's degrees, having average annual salaries at \$61,866.

Table 1 (p. 44) details respondents from all countries together, showing for each job title the percentage of holders of that title falling into each band of academic achievement. This brings considerable detail. It shows, for example, that while Master Black Belts earn good money (see Figure 2 of section 3), their high take-home isn't attributable only to their Six Sigma training. They also pack a good deal of university schooling, with 75% of them holding at least a master's degree.

Table 1 also shows that the highest-educated group among respondents is the educators/instructors. Only 2% of this elite group has less than a bachelor's degree, and 86% hold a master's or higher.

Table 2 (p. 45) separates U.S. and Canadian respondents. For each country, it shows the average salary by job title and education level.

FIGURE 1

Salary by highest level of education for U.S. respondents

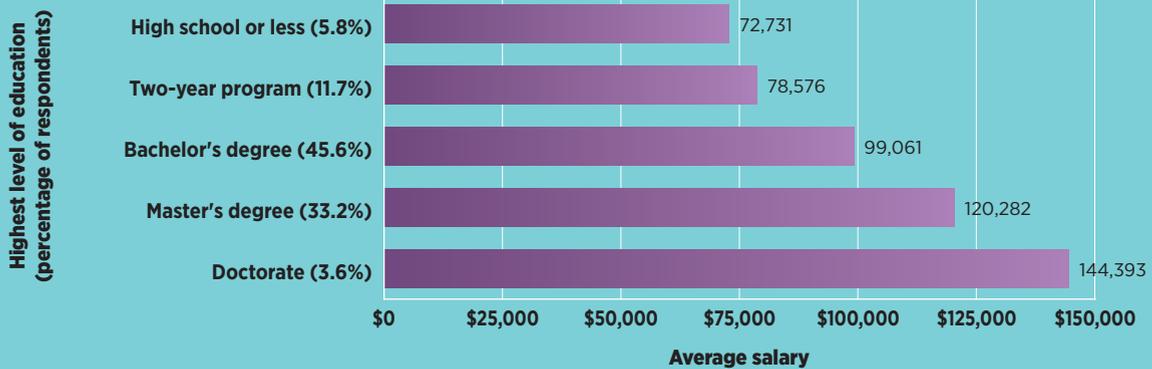


Figure 1 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees
Percentages may not equal 100% due to rounding.

FIGURE 2

Salary by highest level of education for Canadian respondents



Figure 2 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees
Salaries are noted in Canadian dollars. Percentages may not equal 100% due to rounding.

SECTION 5: SALARY BY HIGHEST LEVEL OF EDUCATION

TABLE 1

Highest level of education by job title

	Less than high school	High school diploma	Vocational/technical certificate	Vocational/technical degree	Associate degree	Bachelor's degree	Master's degree	Doctorate
All respondents	0.1%	5%	3.6%	1.4%	6%	45.2%	34.9%	3.8%
Analyst	—	7	1.7	1.7	7	46.1	34.8	1.7
Associate	—	12.5	5	—	5	47.5	25	5
Auditor	0.7	5.3	2.6	0.7	3.9	54.6	30.3	2
Black Belt	—	—	1.7	—	1.7	36.7	55	5
Calibration technician	—	5.3	10.5	5.3	15.8	52.6	10.5	—
Champion	—	—	—	—	—	50	50	—
Consultant	—	—	2.4	—	2.4	35.7	53.6	6
Coordinator	—	8.3	11.5	1	9.4	50	17.7	2.1
Director	—	3.1	1.5	1	3.3	36	51	4.1
Educator/instructor	—	—	—	—	2	12	26	60
Green Belt	—	—	4.3	4.3	4.3	52.2	34.8	—
Inspector	1.6	34.4	16.4	3.3	9.8	26.2	8.2	—
Manager	—	3.9	4	1.8	5.8	46.1	35.4	3
Master Black Belt	—	—	2.1	—	2.1	20.8	64.6	10.4
Other	—	7.4	5.6	—	5.6	46.3	31.5	3.7
Process/manufacturing/project engineer	—	0.9	0.9	2.8	5.7	43.4	41.5	4.7
Quality engineer	0.2	4.1	1.5	0.6	6.4	56	30.2	0.9
Reliability/safety engineer	—	—	2	—	—	40.8	51	6.1
Software quality engineer	—	2.6	2.6	—	5.1	33.3	51.3	5.1
Specialist	—	6.4	3.7	—	5.9	52.5	29.2	2.3
Statistician	—	5.3	—	—	—	21.1	26.3	47.4
Supervisor	—	10.5	8.8	5.3	10.5	45.6	17.5	1.8
Supplier quality engineer/professional	—	1.9	2.6	—	5.8	58.4	30.5	0.6
Technician	1.8	24.6	11.4	7	22.8	27.2	5.3	—
Vice president/executive	—	0.8	2.4	—	2.4	28	55.2	11.2

Table 1 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees, \bar{x} International employees
Percentage may not equal 100% due to rounding.

The highest-educated group among our respondents is the educators/instructors. Only 2% of this elite group has less than a bachelor's degree, and 86% hold a master's or higher.

TABLE 2

Salary by highest level of education and job title

	High school or less	Two-year program	Bachelor's degree	Master's degree	Doctorate
United States					
All respondents	\$72,462 ¹⁹²	\$78,434 ³⁸⁵	\$98,647 ¹⁵⁰⁹	\$119,607 ¹¹⁰²	\$143,403 ¹²⁰
Analyst	64,057 ⁷	65,024 ¹⁰	74,083 ⁴²	85,170 ²⁹	87,664 ²
Associate	38,400 ⁵	42,000 ²	50,841 ¹⁵	71,270 ⁸	98,750 ²
Auditor	68,691 ⁹	67,639 ¹¹	86,655 ⁷⁴	99,164 ³⁵	95,500 ²
Black Belt	—	73,700 ²	90,442 ¹³	98,876 ²³	126,000 ²
Calibration technician	n = 1	60,613 ⁶	58,949 ¹⁰	n = 1	—
Champion	—	—	94,625 ⁴	135,600 ⁵	—
Consultant	—	103,316 ⁴	122,219 ²¹	119,500 ³¹	166,250 ⁴
Coordinator	56,826 ⁸	61,158 ¹⁹	63,453 ³⁴	84,160 ¹⁰	n = 1
Director	140,508 ¹²	127,258 ²¹	135,250 ¹²⁶	148,588 ¹⁷⁹	178,030 ¹³
Educator/instructor	—	n = 1	69,400 ⁵	101,433 ⁵	125,680 ¹⁶
Green Belt	—	60,500 ²	76,998 ¹¹	78,507 ⁵	—
Inspector	54,708 ²⁰	50,749 ¹⁸	53,639 ¹¹	81,000 ⁴	—
Manager	86,685 ⁴³	87,558 ¹¹³	105,257 ⁴⁸⁰	118,054 ³¹⁹	129,059 ³²
Master Black Belt	—	n = 1	131,563 ⁸	134,235 ²⁷	129,400 ⁵
Other	48,000 ⁴	64,000 ⁶	78,212 ¹⁷	102,294 ¹⁵	n = 1
Process/manufacturing/project engineer	n = 1	84,778 ⁹	94,281 ³⁴	99,774 ³¹	101,250 ⁴
Quality engineer	74,620 ²⁵	82,036 ⁵²	86,790 ³⁰⁸	97,498 ¹⁶⁶	137,936 ⁵
Reliability/safety engineer	—	n = 1	114,533 ¹⁵	136,111 ¹⁴	147,900 ³
Software quality engineer	n = 1	95,394 ³	113,842 ¹²	127,449 ¹⁸	130,000 ²
Specialist	58,868 ¹³	66,213 ²⁰	81,539 ¹⁰²	95,318 ⁴⁹	118,000 ⁵
Statistician	—	—	157,013 ³	124,185 ⁵	153,611 ⁸
Supervisor	64,936 ¹¹	70,243 ²²	83,716 ³⁹	97,586 ¹⁴	—
Supplier quality engineer/professional	79,333 ³	94,084 ¹²	99,530 ⁶⁷	113,060 ⁴⁰	—
Technician	55,449 ²⁸	51,141 ⁴⁴	48,210 ²⁴	53,292 ⁵	—
Vice president/executive	n = 1	138,959 ⁶	207,310 ³⁴	192,851 ⁶²	218,472 ¹³
Canada					
All respondents	\$55,717 ⁶	\$82,488 ²⁷	\$86,265 ⁷³	\$83,045 ⁴⁵	\$125,000 ²
Analyst	—	49,000 ²	85,831 ⁵	75,667 ³	—
Associate	—	n = 1	57,493 ³	44,500 ²	—
Consultant	—	—	94,000 ²	n = 1	—
Coordinator	—	56,000 ²	71,821 ³	n = 1	—
Director	—	101,500 ²	137,400 ⁵	113,000 ³	n = 1
Manager	67,000 ²	93,846 ¹³	92,908 ²⁵	95,840 ²⁰	—
Process/manufacturing/project engineer	—	n = 1	58,500 ²	60,500 ²	—
Quality engineer	—	—	74,351 ⁷	69,288 ⁴	—
Specialist	n = 1	n = 1	85,089 ⁷	68,930 ⁴	—
Supervisor	—	68,725 ³	102,000 ²	—	—
Technician	48,500 ²	75,000 ²	51,000 ⁵	—	—

Table 2 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, χ Canadian employees, $_$ International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information. All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

Canadian salaries are noted in Canadian dollars. Superscript numbers denote number of respondents.



QUALITY SERVICE, QUALITY PAY

If you're a quality professional working in the service industry in the United States, you probably bring home a bigger check on average than your peers in manufacturing. You're also in the minority. As Table 1 shows, only 27.1% of this year's U.S. respondents work in the service sector. Their average salary, however, is \$110,554, or 9.1% more than the \$101,355 earned by the average quality professional in manufacturing.

In Canada, a barely greater percentage of respondents report working in services than in the United States, and their earnings advantage is even larger: The service sector is home to 28.4% of this year's Canadian respondents, and the average salary in the Canadian service sector, \$92,639, is about 12% higher than that of their compatriots in manufacturing.

The same table shows that in the United States, the best-paid manufacturing professionals produce toys, sporting goods, pens, jewelry and miscellaneous products. The workers in that sector, however, are very few in size, making up only 0.6% of the survey's U.S. respondents. Of the manufacturing industries—in which more than 3% of respondents appear—the best-paying

positions are in chemicals and related products in which the average salary is \$114,469. In Canada, the most populous industry—with 16% of this year's respondents—is transportation vehicles, in which the average salary is \$80,048.

Tables 2-5 (pp. 48-56) detail earnings by job title within each industry. Tables 2 and 3 cover manufacturing and services in the United States. Tables 4 and 5 do the same for Canadian respondents.

These tables allow you to home in on a particular industry and check out the mix of titles among the people who responded to the survey. It also allows you to compare industries by looking at a particular title. You can scan the table, for example, to see what industries offer the best pay to quality engineers.

In U.S. manufacturing (Table 2), the winner is defense manufacturing, at \$96,431, barely edging out chemicals and related products, where quality engineers earn, on average, \$91,318.

In U.S. services (Table 3), the best pay goes to the few quality engineers in oil and gas extraction and refining, who earn an average of \$122,800.

TABLE 1

Salary by industry

	United States		Canada	
	Percentage	Average salary	Percentage	Average salary
Manufacturing sector	72.9%	\$101,355	71.6%	\$81,538
Aerospace vehicles	9.6	99,615	8.5	69,556
Chemicals and related products	13.3	114,469	9.4	99,936
Computers and electronic products	5.7	106,642	3.8	82,397
Defense	4.5	101,134	1.9	59,000
Electrical products	3	100,425	2.8	79,667
Fabricated metal products	3.6	86,428	8.5	66,307
Food and related products	5.4	102,732	10.4	77,636
Machinery	5.2	99,141	6.6	101,429
Medical instruments and supplies	20.9	105,174	11.3	81,722
Nonelectric measuring, analyzing and controlling instruments	0.3	90,000	0	—
Other product	10.5	91,167	13.2	85,540
Paper and related products	1.7	97,361	1.9	79,150
Primary metals	1.8	88,482	0.9	90,000
Rubber and plastic products	5.9	88,187	4.7	76,600
Toys, sporting goods, pens, jewelry and miscellaneous products	0.6	192,942	0	—
Transportation vehicles (not aerospace)	8	96,530	16	80,048
Service sector	27.1%	\$110,544	28.4%	\$92,639
Construction services	0	114,549	4.8	78,750
Consulting and other professional, scientific and technical services	24.5	113,999	23.8	103,646
Educational services	4.6	104,901	0	—
Financial and insurance services	8	113,808	9.5	82,325
Government and public administration services	12.4	111,632	9.5	99,814
Healthcare services	20	104,850	11.9	91,075
Information services	4.3	119,606	2.4	110,000
Nuclear	1.4	140,815	2.4	73,000
Oil and gas extraction and refining	3.9	133,799	4.8	92,500
Other service	7.1	95,026	11.9	76,800
Retail services	1.1	99,693	4.8	109,819
Social services	0.9	73,700	0	—
Transportation services	4	107,733	7.1	83,333
Utilities	2.3	113,688	2.4	155,000
Wholesale services	1.6	103,643	4.8	68,150

Table 1 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, \times Canadian employees, $_$ International employees
Canadian salaries are noted in Canadian dollars.

TABLE 2 - CONTINUED THROUGH P. 52

Salary by manufacturing industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Aerospace vehicles	Analyst	\$75,000	\$136,000	\$28,159	4	\$104,250	\$103,000
	Auditor	39,416	145,000	40,935	5	101,083	118,000
	Black Belt	85,050	137,000	26,879	3	115,017	123,000
	Coordinator	43,000	66,000	13,000	3	51,000	44,000
	Director	85,000	220,000	44,542	6	144,186	145,057
	Inspector	24,000	85,000	17,468	12	54,793	55,000
	Manager	61,000	200,000	29,433	61	112,810	108,800
	Process/manufacturing/project engineer	84,500	138,000	17,322	6	109,417	110,000
	Quality engineer	40,000	184,000	27,546	67	94,525	88,000
	Reliability/safety engineer	119,316	157,000	17,775	4	130,579	123,000
	Specialist	46,423	133,000	35,670	6	83,737	72,500
	Supervisor	70,000	120,000	18,556	7	85,935	79,000
	Supplier quality engineer/professional	66,000	160,000	27,085	27	106,596	95,000
	Technician	35,360	100,000	23,835	6	61,393	60,000
Chemicals and related products	Analyst	50,000	93,000	14,632	7	67,335	63,345
	Associate	32,000	87,500	25,918	4	66,125	72,500
	Auditor	44,000	160,000	31,645	22	96,509	91,000
	Black Belt	90,000	142,000	19,367	6	107,500	100,000
	Consultant	78,596	140,000	35,027	3	119,032	138,500
	Coordinator	42,000	97,000	22,917	5	63,200	57,000
	Director	80,000	275,000	45,747	39	172,819	170,200
	Manager	63,000	185,000	26,485	101	113,681	110,000
	Master Black Belt	119,000	167,000	21,000	4	148,500	154,000
	Other	42,000	131,000	27,494	8	77,750	79,500
	Process/manufacturing/project engineer	70,000	90,000	10,408	3	78,333	75,000
	Quality engineer	52,000	255,680	35,720	35	95,066	91,000
	Reliability/safety engineer	115,000	177,800	26,855	4	141,950	137,500
	Specialist	39,993	160,000	25,869	34	87,525	78,500
	Supervisor	55,000	121,000	18,887	10	83,900	82,500
	Supplier quality engineer/professional	103,000	136,000	17,388	3	116,333	110,000
	Technician	38,000	74,776	15,546	4	53,194	50,000
	Vice president/executive	163,000	400,000	61,463	13	237,000	215,000

Table 2 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees
Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 2 - CONTINUED FROM P. 48

Salary by manufacturing industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Computers and electronic products	Auditor	\$67,800	\$111,084	\$21,793	3	\$87,961	\$85,000
	Director	115,000	227,000	29,494	15	147,866	142,600
	Inspector	42,000	68,000	13,000	3	55,000	55,000
	Manager	68,000	178,000	27,893	36	114,490	118,000
	Process/manufacturing/project engineer	63,000	156,000	32,893	7	118,543	123,800
	Quality engineer	40,000	199,799	28,983	38	87,048	80,000
	Reliability/safety engineer	60,000	165,000	42,042	5	129,000	145,000
	Specialist	64,220	101,300	15,341	5	86,104	85,000
	Supervisor	43,000	165,000	50,652	5	74,930	56,000
	Supplier quality engineer/professional	106,000	180,000	27,298	5	140,200	135,000
Defense	Director	96,000	165,000	24,799	6	123,765	116,294
	Inspector	41,600	83,000	23,536	3	68,767	81,700
	Manager	30,000	235,000	40,113	29	121,259	120,000
	Quality engineer	65,000	142,000	21,846	34	96,431	93,500
	Software quality engineer	100,000	130,000	15,151	3	113,767	111,300
	Specialist	42,223	77,000	18,066	4	58,054	56,497
	Supplier quality engineer/professional	67,000	127,500	24,525	6	98,207	102,872
	Technician	35,000	54,000	6,917	5	43,402	41,600
Electrical products	Vice president/executive	93,000	210,000	49,734	5	124,000	100,000
	Analyst	56,000	115,000	30,116	3	82,000	75,000
	Director	120,000	154,000	13,921	5	141,400	148,000
	Manager	70,000	163,000	21,892	20	100,476	100,000
	Process/manufacturing/project engineer	71,500	125,000	22,144	5	94,000	87,500
	Quality engineer	55,000	110,000	19,299	12	80,863	78,000
	Reliability/safety engineer	69,700	138,000	34,286	3	102,087	98,562
	Specialist	55,500	88,000	18,621	3	66,500	56,000
	Supervisor	65,000	101,923	19,108	3	86,308	92,000
	Supplier quality engineer/professional	81,300	153,000	20,122	8	110,978	108,513
	Technician	48,000	59,000	5,508	3	53,333	53,000
Vice president/executive	191,335	235,000	21,909	3	212,112	210,000	

Table 2 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees
 Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 2 - CONTINUED FROM P. 49

Salary by manufacturing industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Fabricated metal products	Coordinator	40,000	90,000	27,301	3	58,667	46,000
	Director	109,000	150,000	15,160	8	130,075	130,000
	Manager	44,000	135,000	22,713	31	88,664	91,000
	Quality engineer	45,000	103,000	18,259	22	74,328	75,000
	Supervisor	78,000	108,500	15,359	4	93,625	94,000
Food and related products	Analyst	\$52,000	\$124,000	\$24,251	8	\$75,205	\$67,500
	Auditor	51,750	115,000	22,245	6	82,122	76,492
	Coordinator	46,000	150,000	45,353	4	85,250	72,500
	Director	79,000	190,000	36,538	16	147,974	161,000
	Manager	50,000	185,000	26,182	43	102,358	99,000
	Quality engineer	63,500	95,000	11,556	7	76,893	72,000
	Specialist	40,000	131,000	30,013	12	77,285	73,000
	Supervisor	51,000	120,000	21,855	7	79,351	76,000
	Technician	21,000	55,000	12,780	7	42,218	47,000
	Vice president/executive	164,000	333,000	59,466	7	212,714	195,000
Machinery	Analyst	40,000	125,000	48,789	3	68,667	41,000
	Coordinator	53,000	70,000	7,608	4	59,049	56,598
	Director	99,500	300,000	57,524	11	163,045	155,000
	Inspector	30,000	50,000	10,013	3	39,701	39,104
	Manager	63,000	190,000	31,704	41	112,436	108,000
	Process/manufacturing/project engineer	68,000	133,000	26,618	5	105,000	110,000
	Quality engineer	43,000	182,000	24,866	30	85,422	83,465
	Specialist	40,000	115,000	32,547	4	68,000	58,500
	Supervisor	58,500	107,196	26,741	3	89,232	102,000
	Supplier quality engineer/professional	58,000	118,000	19,087	6	88,500	89,500
	Technician	45,000	63,000	8,261	4	54,750	55,500

Table 2 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

Among this year's respondents, the best-paid quality engineers in U.S. manufacturing work in defense manufacturing, and their average salary is \$96,431.

TABLE 2 - CONTINUED FROM P. 50

Salary by manufacturing industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Medical instruments and supplies	Analyst	42,100	110,000	20,986	11	73,514	72,000
	Associate	41,000	65,000	11,587	4	55,750	58,500
	Auditor	45,000	150,000	32,068	20	85,106	76,000
	Champion	100,000	125,000	13,219	4	113,125	113,750
	Consultant	72,000	165,000	34,256	6	131,033	144,600
	Coordinator	35,000	72,000	12,535	9	52,911	56,000
	Director	45,000	235,000	46,571	49	151,523	145,000
	Inspector	34,000	78,000	17,649	6	48,809	41,670
	Manager	36,000	200,000	31,376	112	115,275	115,000
	Other	26,000	104,000	32,375	5	75,620	93,100
	Process/manufacturing/project engineer	56,000	162,000	30,996	13	104,885	90,000
	Quality engineer	55,000	175,000	23,696	124	96,318	91,000
	Reliability/safety engineer	112,700	176,000	25,945	4	143,425	142,500
	Software quality engineer	67,000	200,000	38,098	11	119,562	110,000
	Specialist	36,658	157,000	32,269	29	87,145	81,500
	Supervisor	45,000	115,000	20,787	14	77,248	82,500
	Supplier quality engineer/professional	66,000	185,000	25,936	27	102,386	100,000
Technician	25,112	79,000	14,583	26	54,144	51,500	
Vice president/executive	72,000	350,000	85,069	10	239,300	260,000	
Nonelectric measuring, analyzing and controlling instruments	Director	\$82,000	\$120,000	\$20,033	3	\$97,333	\$90,000
	Quality engineer	80,000	99,000	9,713	3	88,333	86,000
Other product	Auditor	53,500	95,000	17,257	6	74,523	77,755
	Coordinator	45,500	69,000	13,288	3	60,833	68,000
	Director	74,000	190,000	34,186	21	130,890	130,000
	Inspector	24,000	110,000	24,398	10	57,290	49,183
	Manager	52,000	155,000	21,845	83	97,253	98,000
	Other	59,500	115,000	26,062	4	78,625	70,000
	Process/manufacturing/project engineer	55,000	102,000	17,670	8	77,750	72,500
	Quality engineer	50,000	128,500	17,887	46	83,204	79,500
	Specialist	42,000	139,000	24,686	10	75,930	71,150
	Supervisor	54,000	165,000	36,089	8	85,125	80,000
	Supplier quality engineer/professional	68,000	145,000	21,422	16	99,125	96,750
	Technician	37,650	76,000	12,005	16	57,609	56,500
	Vice president/executive	150,000	220,000	30,923	4	176,250	167,500
Paper and related products	Director	81,000	130,000	28,006	3	113,333	129,000
	Manager	70,000	137,000	21,625	19	101,974	92,000
	Quality engineer	73,800	96,000	8,459	8	83,788	83,000

Table 2 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
 Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 2 - CONTINUED FROM P. 51

Salary by manufacturing industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Primary metals (smelted, refined or rolled metals)	Coordinator	47,000	100,200	27,523	5	70,040	53,000
	Director	92,700	170,000	23,434	7	130,957	135,000
	Manager	44,000	148,440	29,787	13	94,671	98,280
	Quality engineer	48,000	133,930	29,380	7	85,776	72,000
	Specialist	58,000	73,000	8,386	3	67,667	72,000
Rubber and plastic products	Coordinator	50,000	85,000	16,084	5	64,200	55,000
	Director	65,000	177,915	31,913	11	143,254	150,480
	Manager	43,680	177,000	27,637	59	98,910	95,000
	Quality engineer	50,000	147,300	19,957	30	76,603	74,540
	Specialist	55,000	72,000	7,589	4	61,433	59,365
	Supervisor	45,000	72,000	8,732	6	57,367	57,100
	Technician	30,000	62,000	9,816	11	48,757	49,525
Toys and sporting goods, pens, jewelry or miscellaneous products	Director	155,000	190,000	18,930	3	168,333	160,000
	Manager	139,000	220,000	35,894	4	169,063	158,625
	Vice president/executive	200,000	320,000	45,834	5	250,400	252,000
Transportation vehicles (not aerospace)	Auditor	\$39,000	\$157,000	\$52,079	6	\$89,333	\$66,000
	Coordinator	50,000	105,000	22,942	5	66,284	55,000
	Director	81,000	200,000	28,413	16	137,725	140,000
	Inspector	49,920	70,000	10,440	3	58,307	55,000
	Manager	35,000	150,000	27,904	57	95,091	87,000
	Master Black Belt	114,000	138,000	12,137	5	127,600	133,000
	Process/manufacturing/project engineer	50,000	120,000	27,797	5	84,937	90,000
	Quality engineer	43,680	128,000	18,464	45	80,380	80,000
	Software quality engineer	97,129	128,000	15,462	3	112,043	111,000
	Specialist	43,000	135,000	39,092	6	83,250	71,000
	Supervisor	65,000	130,000	28,789	4	88,259	79,018
	Supplier quality engineer/professional	62,000	122,500	19,283	13	97,896	102,000
	Technician	32,000	64,000	13,446	5	44,600	45,000
	Vice president/executive	100,000	285,000	66,371	6	219,898	244,693

Table 2 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees, $_$ International employees
 Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 3 - CONTINUED THROUGH P. 55

Salary by service industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Construction services	Analyst	\$58,000	\$68,307	\$5,466	3	\$62,102	\$60,000
	Director	70,000	185,000	36,391	8	121,738	120,700
	Manager	97,500	193,453	28,297	11	127,449	120,000
Consulting and other professional, scientific and technical services	Analyst	57,000	130,000	23,063	8	90,291	85,000
	Associate	43,500	80,000	20,452	3	56,420	45,760
	Auditor	52,000	140,000	23,460	17	89,107	86,000
	Consultant	92,000	300,000	60,996	14	148,343	136,500
	Coordinator	42,000	135,000	35,567	5	81,840	70,000
	Director	84,000	212,000	29,340	26	131,352	134,500
	Manager	45,000	189,000	33,158	70	110,316	105,000
	Master Black Belt	99,500	123,000	12,790	3	114,167	120,000
	Process/manufacturing/project engineer	64,231	100,000	16,329	4	86,058	90,000
	Quality engineer	50,000	140,000	28,322	16	86,064	77,755
	Software quality engineer	114,471	140,000	11,228	4	123,618	120,000
	Specialist	43,000	148,000	31,842	11	86,191	76,000
	Vice president/executive	110,000	302,132	59,042	17	197,464	180,000
Educational services	Educator/instructor	50,000	255,000	52,038	18	128,417	125,000
	Manager	70,000	130,000	21,442	9	97,500	92,000
Financial and insurance services	Analyst	50,000	155,000	35,174	7	81,771	72,000
	Auditor	44,000	150,000	37,588	6	83,760	71,780
	Black Belt	85,000	142,000	25,807	4	104,000	94,500
	Consultant	85,000	159,000	34,694	4	131,500	141,000
	Director	115,000	173,000	17,770	8	136,263	136,850
	Manager	86,000	130,000	13,350	13	103,925	105,000
	Master Black Belt	106,500	165,000	29,866	5	143,300	165,000
	Process/manufacturing/project engineer	75,300	130,000	26,107	4	90,950	79,250
Vice president/executive	113,000	206,400	32,455	10	159,540	165,000	
Government and public administration services	Analyst	60,000	125,020	27,759	6	82,559	68,168
	Auditor	76,000	185,000	41,688	8	115,291	107,000
	Black Belt	85,000	105,000	8,287	4	94,000	93,000
	Consultant	73,500	145,000	26,521	5	105,153	97,000
	Director	101,000	230,000	34,611	15	155,053	160,000
	Manager	52,000	215,913	33,772	32	105,434	100,664
	Master Black Belt	120,000	135,000	7,638	3	128,333	130,000
	Other	72,000	160,000	40,173	4	101,953	87,907
	Quality engineer	67,000	139,000	25,444	8	104,563	103,250
	Specialist	51,000	122,000	27,833	6	93,904	98,711

Table 3 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees. Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 3 - CONTINUED FROM P. 53

Salary by service industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Healthcare services	Analyst	\$55,600	\$105,000	\$24,792	3	\$81,533	\$84,000
	Associate	38,000	110,000	24,548	6	63,527	58,080
	Auditor	46,000	108,423	19,369	8	68,928	69,000
	Black Belt	81,000	110,000	10,107	11	95,696	93,000
	Consultant	75,000	122,000	21,280	4	90,628	82,757
	Coordinator	47,000	96,000	16,076	9	59,778	55,000
	Director	50,000	250,000	37,299	34	127,404	130,350
	Green Belt	61,339	89,980	12,534	4	77,330	79,000
	Manager	67,000	175,000	25,532	44	104,261	99,500
	Master Black Belt	80,000	192,000	39,290	8	133,745	127,000
	Other	53,000	95,000	21,779	3	70,667	64,000
	Process/manufacturing/project engineer	65,000	110,000	17,430	6	91,271	91,314
	Quality engineer	61,800	115,000	26,601	3	88,267	88,000
	Specialist	52,000	109,000	18,009	13	77,882	72,000
	Supervisor	70,000	89,000	9,713	3	80,667	83,000
Vice president/executive	152,000	400,000	76,768	9	215,889	185,000	
Information services	Analyst	60,000	80,000	10,408	3	68,333	65,000
	Consultant	114,000	154,000	13,075	6	134,167	136,000
	Director	93,000	212,000	43,064	5	150,000	150,000
	Manager	57,700	226,159	48,778	14	122,235	108,500
Nuclear	Manager	107,000	159,000	28,000	3	139,000	151,000
	Specialist	50,000	155,200	44,957	4	113,300	124,000
Oil and gas extraction and refining	Coordinator	43,251	110,000	37,974	3	87,084	108,000
	Director	155,500	206,000	24,218	4	186,851	192,952
	Manager	88,000	295,000	71,790	6	171,750	165,500
	Quality engineer	85,000	200,000	47,347	5	122,800	104,000
	Specialist	33,000	176,000	52,355	6	102,917	92,000
Other service	Auditor	42,841	105,000	25,415	5	85,968	96,000
	Director	90,000	155,000	27,366	8	112,202	97,808
	Manager	24,960	178,000	34,369	27	97,579	95,000
	Specialist	38,000	107,000	35,434	3	67,833	58,500
	Supervisor	60,000	143,000	37,936	4	87,111	72,721
	Vice president/executive	85,000	135,000	26,458	3	115,000	125,000
Retail services	Manager	78,000	133,000	24,493	4	97,984	90,467

Table 3 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

「MONEY TALKS」

In what way has your own job changed permanently due to COVID-19?



We have started doing remote audits instead of on-site audits. Even after there is a vaccine, we will probably continue to do remote audits (where we can) because of the cost savings versus traveling.

Michael Mills

Senior quality engineer | Bosch Automotive Service Solutions | Santa Barbara, CA

TABLE 3 - CONTINUED FROM P. 54

Salary by service industry and job title for U.S. respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Social services	Manager	64,000	83,200	10,287	3	75,733	80,000
Transportation services	Analyst	\$55,000	\$67,000	\$6,658	3	\$59,333	\$56,000
	Auditor	60,000	160,000	40,777	5	88,400	70,000
	Director	107,000	192,000	33,775	7	151,500	165,000
	Green Belt	73,000	81,300	4,792	3	78,533	81,300
	Manager	67,000	144,000	24,505	7	115,857	120,000
	Specialist	41,000	75,000	18,049	3	54,500	47,500
	Vice president/executive	150,000	200,000	26,458	3	180,000	190,000
Utilities	Analyst	81,450	95,000	7,314	3	89,817	93,000
	Director	135,000	160,000	13,229	3	145,000	140,000
	Manager	82,000	154,000	28,258	5	128,000	133,000
	Specialist	60,000	150,000	39,161	5	102,460	96,000
Wholesale services	Director	118,000	178,500	26,177	4	141,625	135,000
	Manager	81,000	118,000	16,500	5	103,500	112,000

Table 3 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees
Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

In the United States, 27.1% of respondents report that they work in a service industry, at an average salary of \$110,554. This is 9.1% more than the earnings reported by professionals in the manufacturing sector.

TABLE 4

Salary by manufacturing industry and job title for Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Chemicals and related products	Manager	\$73,825	\$126,000	\$17,293	6	\$96,638	\$94,500
Fabricated metal products	Manager	68,000	110,000	21,633	3	86,000	80,000
Food and related products	Manager	42,000	106,000	25,049	7	82,857	93,000
Machinery	Manager	75,000	160,000	32,863	5	109,000	100,000
Medical instruments and supplies	Manager	75,000	90,000	7,638	3	83,333	85,000
Other product	Manager	50,000	160,000	55,591	3	100,333	91,000
Rubber and plastic products	Manager	71,000	87,000	6,066	5	76,600	75,000
Transportation vehicles (not aerospace)	Manager	96,000	125,500	12,113	4	109,875	109,000
	Quality engineer	44,321	85,000	16,277	5	65,164	65,000

Table 4 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{u} U.S. employees, \bar{c} Canadian employees, \bar{i} International employees. Salaries are noted in Canadian dollars. Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

TABLE 5

Salary by service industry and job title for Canadian respondents

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Consulting and other professional, scientific and technical services	Manager	\$88,000	\$160,000	\$27,037	5	\$115,000	\$108,000
Financial and insurance services	Analyst	69,000	92,500	12,435	3	83,100	87,800
Healthcare services	Manager	40,000	125,000	45,574	3	92,000	111,000

Table 5 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{u} U.S. employees, \bar{c} Canadian employees, \bar{i} International employees. Salaries are noted in Canadian dollars. Job titles with fewer than two respondents were suppressed to shield personally identifiable information.

STAY IN SCHOOL, STAY IN QUALITY



If you've earned a master's degree and have worked in the quality profession for more than 10 years, you probably earn more than the average salary of all of this year's respondents. Things are only likely to get better as you stick with quality.

As Figure 1 (p. 58) shows for the United States, professionals with a master's degree and 10 to 20 years of experience in quality average \$122,599 a year, putting them ahead of this year's U.S. average for the whole profession of \$103,512. Year after year, the QP Salary Survey shows that formal education and experience in quality are two of the most important factors in winning a healthy paycheck.

Figure 1 shows the strong effects of these factors on the salaries of full-time professionals in the United States. Nearly every added increment of either education or experience brings with it greater pay. The only exception appears to be among those holding doctorates: The ones with 10.1 to 20 years of experience in quality outearn the PhDs with more than 20 years of experience by just under \$3,200. This exception doesn't change the fact that, overwhelmingly, education and experience together bring financial benefits.

The kinds of stair-step patterns of increasing earnings you see for U.S.

Year after year, the QP Salary Survey shows that formal education and experience in quality are two of the most important factors in winning a healthy paycheck.

SECTION 7: SALARY BY EDUCATION AND YEARS IN QUALITY

U.S. respondents with a master's degree— along with more than 10 years and up to 20 years in the quality field— earn \$122,599 a year on average.

respondents (Figure 1) are usually more muted in the QP Salary Survey's Canadian data, in which the smaller numbers of respondents mean more variance in the small buckets that result from slicing and dicing the data (Figure 2 , p. 59).

This is especially true this year when the survey had an extraordinarily small number of Canadian respondents. Even so, the benefits of education and experience are somewhat apparent. The most highly experienced (more than 20 years) earn more than all of their fellow respondents with the same level of education.

Table 1 (pp. 60-62) details earnings by education and experience broken out by job title for U.S. respondents. Table 2 (p. 63) shows the same breakdown for Canadian respondents.

FIGURE 1

Salary by highest level of education and number of years in the quality field for U.S. respondents

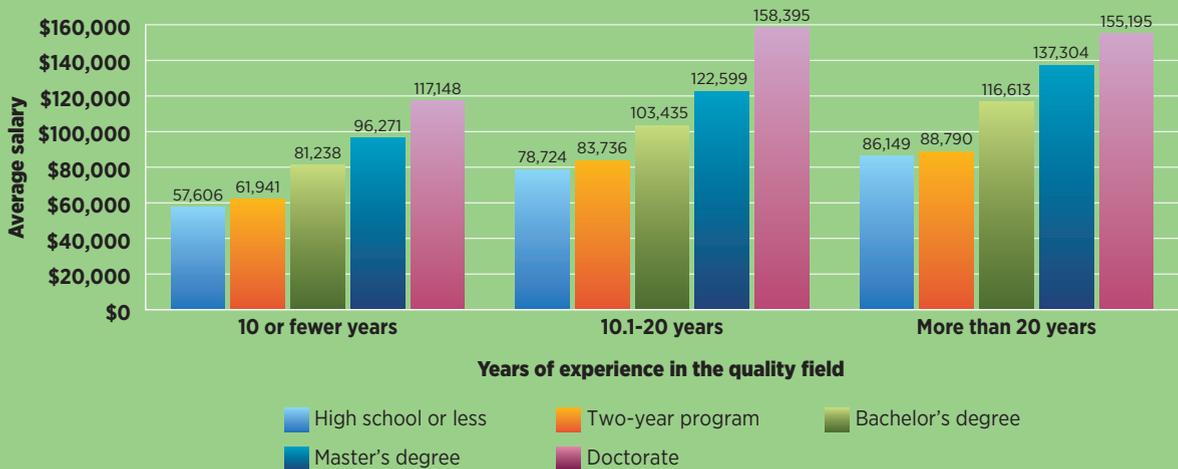


Figure 1 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees
 Percentages may not equal 100% due to rounding.

FIGURE 2

Salary by highest level of education and number of years in the quality field for Canadian respondents

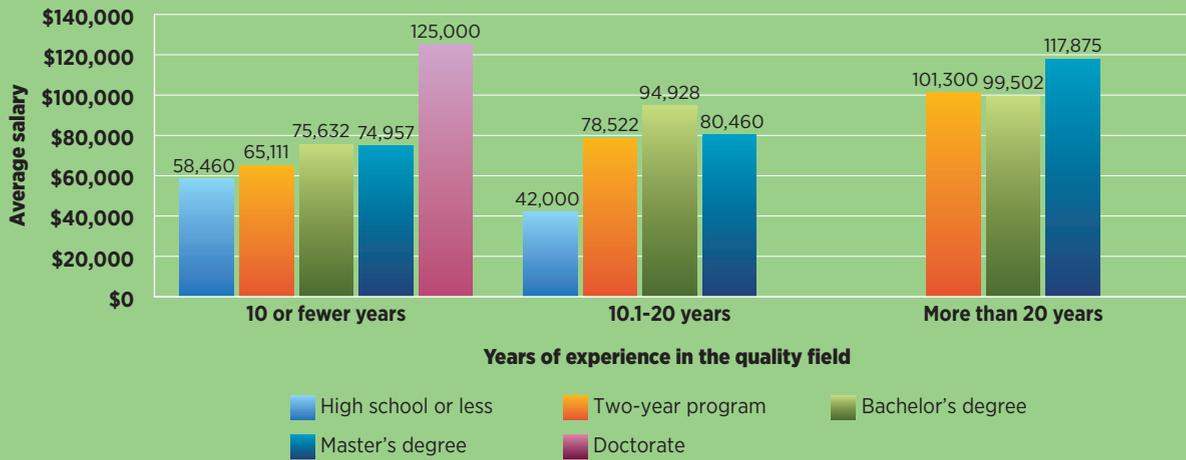


Figure 2 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees
 Percentages may not equal 100% due to rounding.

「MONEY TALKS」

In what way do you feel your productivity has been affected because you were working away from the workplace?



On the rare occasion when I'm in the office, I've found myself more productive due to a false sense of urgency created by the limited time there. Online meetings generally are quicker than in person and it's easier to drop off when you're not needed. While distractions appear to be more frequent, I think it really is an equal trade off of co-worker distractions for family/roommate distractions.

Nathan Runke
 Quality engineer, Uponor | Apple Valley, MN

SECTION 7: SALARY BY EDUCATION AND YEARS IN QUALITY

TABLE 1 - CONTINUED THROUGH P. 60

Salary by education, years of experience in quality and job title for U.S. respondents

		10 or fewer years	10.1-20 years	More than 20 years
All respondents	High school or less	\$57,606 ⁷⁷	\$78,724 ⁴⁹	\$86,149 ⁶⁴
	Two-year program	61,941 ¹²⁵	83,736 ¹¹²	88,790 ¹⁴⁷
	Bachelor's degree	81,238 ⁵⁸⁶	103,435 ⁴¹³	116,613 ⁴⁹²
	Master's degree	96,271 ³⁴²	122,599 ³⁰⁴	137,304 ⁴⁴¹
	Doctorate	117,148 ³⁵	158,395 ²¹	155,195 ⁶¹
Analyst	High school or less	59,033 ³	68,650 ²	67,000 ²
	Two-year program	47,699 ³	65,031 ⁴	82,340 ³
	Bachelor's degree	69,861 ²⁹	85,495 ⁹	80,667 ³
	Master's degree	74,830 ¹⁸	103,143 ⁷	100,250 ⁴
	Doctorate	87,664 ²	—	—
Associate	High school or less	38,500 ⁴	n = 1	—
	Two-year program	42,000 ²	—	—
	Bachelor's degree	47,404 ¹²	n = 1	n = 1
	Master's degree	78,632 ⁵	59,000 ³	—
	Doctorate	98,750 ²	—	—
Auditor	High school or less	53,354 ⁴	n = 1	72,450 ⁴
	Two-year program	58,586 ⁶	58,837 ³	108,000 ²
	Bachelor's degree	69,801 ²⁵	87,890 ¹⁷	104,253 ²⁹
	Master's degree	74,966 ¹⁴	102,774 ⁵	123,824 ¹⁵
	Doctorate	96,998 ⁵	—	—
Black Belt	Bachelor's degree	82,167 ⁶	94,625 ⁵	n = 1
	Master's degree	94,704 ¹³	103,600 ⁵	121,250 ⁴
Calibration technician	Two-year program	44,340 ²	79,000 ²	58,500 ²
	Bachelor's degree	52,886 ⁵	55,353 ³	79,500 ²
Champion	Bachelor's degree	87,500 ²	n = 1	n = 1
	Master's degree	n = 1	n = 1	128,333 ³
Consultant	Two-year program	84,133 ²	n = 1	n = 1
	Bachelor's degree	92,766 ⁶	143,500 ²	145,300 ¹⁰
	Master's degree	113,956 ¹¹	132,600 ⁵	134,917 ¹²
	Doctorate	—	n = 1	142,400 ³
Coordinator	High school or less	48,870 ³	71,000 ³	47,500 ²
	Two-year program	49,778 ⁹	68,800 ⁵	74,000 ⁵
	Bachelor's degree	59,748 ²³	59,050 ⁴	78,143 ⁷
	Master's degree	66,100 ⁶	n = 1	103,333 ³

Table 1 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, $_$ Canadian employees, $_$ International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.

All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information. Superscript numbers denote number of respondents.

TABLE 1 - CONTINUED FROM P.60

Salary by education, years of experience in quality and job title for U.S. respondents

		10 or fewer years	10.1-20 years	More than 20 years
Director	High school or less	—	\$141,150 ⁴	\$140,188 ⁸
	Two-year program	\$103,750 ⁴	153,046 ⁹	110,000 ⁸
	Bachelor's degree	117,672 ²⁷	135,884 ³⁷	143,633 ⁶¹
	Master's degree	139,940 ²³	141,547 ³⁷	154,545 ⁹⁸
	Doctorate	148,700 ⁴	150,752 ⁴	223,317 ⁵
Educator/instructor	Bachelor's degree	72,333 ³	n = 1	—
	Master's degree	55,000 ²	n = 1	178,500 ²
	Doctorate	n = 1	n = 1	133,491 ¹³
Green Belt	Bachelor's degree	76,889 ⁹	n = 1	n = 1
	Master's degree	78,507 ⁶	—	—
Inspector	High school or less	37,514 ⁸	52,800 ⁵	75,721 ⁷
	Two-year program	50,122 ⁹	56,761 ⁴	47,068 ⁵
	Bachelor's degree	51,879 ⁸	n = 1	65,000 ²
	Master's degree	74,000 ²	n = 1	n = 1
Manager	High school or less	77,458 ¹³	91,433 ¹²	94,830 ¹⁶
	Two-year program	74,411 ²⁷	89,266 ³⁵	93,347 ⁵¹
	Bachelor's degree	96,329 ¹³³	106,863 ¹⁵²	110,350 ¹⁹²
	Master's degree	102,527 ⁸⁶	124,511 ¹⁰³	124,498 ¹²⁷
	Doctorate	111,650 ⁹	131,692 ⁷	137,212 ¹⁵
Master Black Belt	Bachelor's degree	—	135,250 ⁴	127,875 ⁴
	Master's degree	113,942 ²	116,722 ⁹	152,064 ¹⁵
	Doctorate	n = 1	122,500 ²	117,000 ²
Other	High school or less	48,000 ⁴	—	—
	Two-year program	52,500 ²	—	69,750 ⁴
	Bachelor's degree	80,458 ¹²	85,025 ⁴	—
	Master's degree	80,877 ⁸	128,700 ²	126,000 ⁵
Process/ manufacturing/ project engineer	Two-year program	80,333 ³	92,333 ³	81,667 ³
	Bachelor's degree	83,168 ²⁰	98,375 ⁴	114,869 ¹⁰
	Master's degree	86,315 ¹³	110,136 ¹¹	116,167 ⁶
	Doctorate	97,500 ²	—	105,000 ²
Quality engineer	High school or less	74,989 ¹⁰	81,714 ⁷	67,950 ⁸
	Two-year program	65,479 ¹⁴	72,938 ¹³	96,039 ²⁵
	Bachelor's degree	79,414 ¹⁵⁴	90,707 ⁷³	98,037 ⁸⁰
	Master's degree	85,555 ⁷¹	98,181 ⁴⁰	113,575 ⁵⁴
	Doctorate	—	—	137,936 ⁵

Table 1 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees, \bar{x} International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.

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SECTION 7: SALARY BY EDUCATION AND YEARS IN QUALITY

TABLE 1 - CONTINUED FROM P.61

Salary by education, years of experience in quality and job title for U.S. respondents

		10 or fewer years	10.1-20 years	More than 20 years
Reliability/safety engineer	Bachelor's degree	\$102,950 ⁶	\$116,757 ⁷	\$141,500 ²
	Master's degree	103,781 ²	142,218 ⁴	141,140 ⁸
	Doctorate	133,850 ²	—	n = 1
Software quality engineer	Two-year program	—	n = 1	92,591 ²
	Bachelor's degree	99,250 ⁴	103,543 ³	131,694 ⁵
	Master's degree	123,356 ⁹	n = 1	130,555 ⁷
	Doctorate	130,000 ²	—	—
Specialist	High school or less	47,942 ⁹	69,250 ²	97,650 ²
	Two-year program	54,770 ⁸	73,260 ⁵	74,257 ⁷
	Bachelor's degree	73,439 ⁵¹	85,744 ³⁰	105,179 ¹⁸
	Master's degree	82,248 ²¹	105,492 ¹⁵	104,692 ¹³
	Doctorate	109,333 ³	—	131,000 ²
Statistician	Bachelor's degree	—	—	157,013 ³
	Master's degree	—	n = 1	129,641 ³
	Doctorate	125,000 ²	—	174,978 ⁵
Supervisor	High school or less	58,250 ⁴	67,660 ⁵	71,500 ²
	Two-year program	59,486 ¹¹	81,889 ⁹	77,000 ²
	Bachelor's degree	75,803 ¹⁷	84,642 ¹³	97,325 ⁹
	Master's degree	90,717 ⁵	108,000 ⁵	93,969 ³
Supplier quality engineer/professional	High school or less	—	n = 1	82,500 ²
	Two-year program	67,671 ³	107,500 ⁴	99,200 ⁵
	Bachelor's degree	76,426 ¹⁷	99,230 ²²	113,794 ²⁸
	Master's degree	91,975 ¹⁰	123,800 ¹⁵	116,377 ¹⁵
Technician	High school or less	53,931 ¹³	51,100 ⁶	60,540 ⁹
	Two-year program	48,744 ¹⁷	48,263 ¹²	58,457 ¹⁴
	Bachelor's degree	45,176 ¹⁶	56,138 ⁵	51,173 ³
	Master's degree	54,820 ³	—	51,000 ²
Vice president/executive	Two-year program	n = 1	—	149,751 ⁵
	Bachelor's degree	n = 1	184,923 ¹³	224,227 ²⁰
	Master's degree	157,500 ¹⁰	178,000 ¹¹	205,458 ⁴¹
	Doctorate	137,500 ²	244,283 ⁴	226,857 ⁷

Table 1 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, $_$ Canadian employees, $_$ International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.

All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information. Superscript numbers denote number of respondents.

TABLE 2

Salary by education, years of experience in quality and job title for Canadian respondents

		10 or fewer years	10.1-20 years	More than 20 years
All respondents	High school or less	\$58,460 ⁵	n = 1	—
	Two-year program	65,111 ⁹	\$78,522 ⁸	\$101,300 ¹⁰
	Bachelor's degree	75,632 ³⁴	94,928 ²³	99,502 ¹⁵
	Master's degree	74,957 ¹⁸	80,460 ¹⁷	117,875 ⁸
	Doctorate	125,000 ²	—	—
Analyst	Two-year program	49,000 ²	—	—
	Bachelor's degree	85,831 ⁵	—	—
	Master's degree	72,500 ²	—	n = 1
Coordinator	Bachelor's degree	74,732 ²	n = 1	—
Director	Bachelor's degree	n = 1	143,000 ⁴	—
Manager	High school or less	67,000 ²	—	—
	Two-year program	71,000 ³	81,667 ³	108,857 ⁷
	Bachelor's degree	89,250 ⁸	87,149 ⁸	101,278 ⁹
	Master's degree	88,500 ⁵	80,130 ¹⁰	134,600 ⁵
Process/ manufacturing/ project engineer	Bachelor's degree	58,500 ²	—	—
	Master's degree	60,500 ²	—	—
Quality engineer	Bachelor's degree	52,161 ²	80,375 ⁴	n = 1
	Master's degree	n = 1	70,718 ³	—
Specialist	Bachelor's degree	76,845 ⁵	n = 1	n = 1
	Master's degree	70,359 ²	n = 1	—
Supervisor	Two-year program	—	65,587 ²	n = 1
Technician	Bachelor's degree	51,667 ³	50,000 ²	—

Table 2 includes results for: \times Full-time employees, $_$ Part-time employees, $_$ U.S. employees, \times Canadian employees, $_$ International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.

All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

Canadian salaries are noted in Canadian dollars. Superscript numbers denote number of respondents.



PRINCIPLE AND PAY

If you're a quality professional working in California, your salary is probably higher than that of someone doing the same job elsewhere. But in the Golden State, you also must contend with a high cost of living. As Figure 1 shows, the Pacific region, which includes California, pays quality professionals 10.7% more than the average for the entire profession in the United States.

Figure 1 shows these differentials for all regions in the United States, while Figure 2 shows them for Canadian provinces. To see what states are included in each U.S. region, view the map in Figure 3 (p. 67).

That map also shows the cost of living index (COLI) by state, as well as the percentage of U.S. respondents working in that state. The COLI is based on a national average of 100, so the COLI in California of 142.7 means that the cost of living is 42.7% higher there than in the rest of the country. The average salary there—\$120,301, as seen in Table 1 (p. 66)—is 16.2% higher than the national average of \$103,512. This fails to make up for California's higher COLI.

Table 1 shows the average salaries for the U.S. states and territories sorted from the highest salary (Washington, D.C., at \$149,159) to the lowest (South Dakota at \$61,300).

Tables 2 (U.S. respondents, p. 68) and 3 (Canadian respondents, p. 69) break down regional and provincial salaries by job title. Table 4 (p. 70) digs deeper on salaries by state—in this case, presenting the states in alphabetical order.

Table 5 (pp. 71-79) goes into even greater detail, breaking

down responses by state and by job title. Table 6 (pp. 80-91) examines job titles within the major metropolitan areas in the United States. These metro areas are presented within their regions. The regions, moving from west to east, are in this sequence:

- + Pacific.
- + Mountain.
- + West North Central.
- + West South Central.
- + East North Central.
- + East South Central.
- + South Atlantic.
- + Middle Atlantic.
- + New England.

Within each region, the metro areas are in alphabetical order. If you're uncertain of a region's composition, see Figure 3, where the map is color-coded by region. Some metro areas span two or more regions. The St. Louis metro area, for example, contains several cities and suburbs in Illinois. In such cases, a metro area has been assigned to a region based on the location of the city that provides the name for the metro area. Thus, the New York City metro area is treated as part of the Middle Atlantic region, even though a portion of it spills into Connecticut, which is part of New England.

Table 7 (p. 92) shows salaries by job title in the metropolitan areas of Canada.

FIGURE 1

Comparison of salaries in U.S. regions

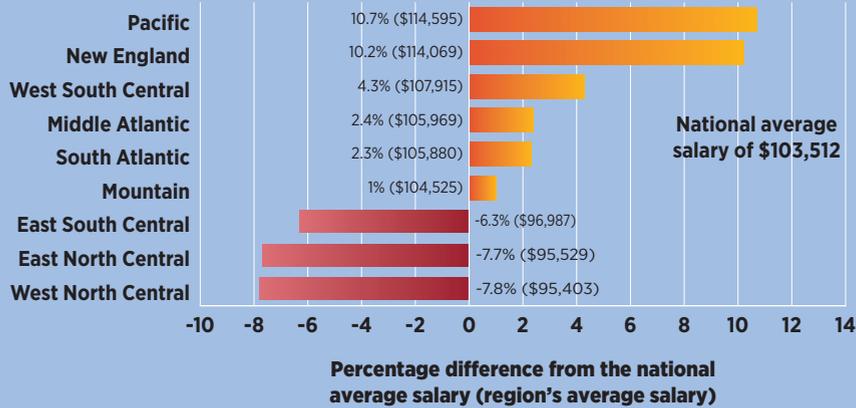


Figure 1 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees, $_$ International employees

In the Pacific States, quality professionals who responded to this year's survey are paid an average of 10.7% more than the average for the United States as a whole.

FIGURE 2

Comparison of salaries in Canadian provinces

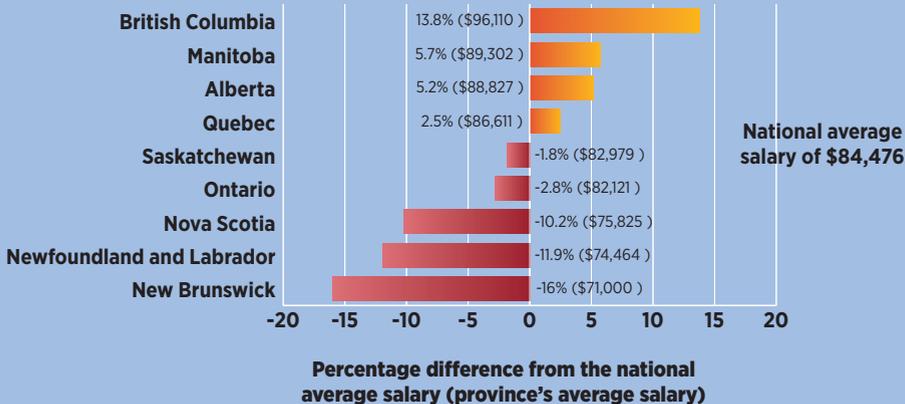


Figure 2 includes results for: \times Full-time employees, $_$ Part-time employees, $_$ U.S. employees, \times Canadian employees, $_$ International employees

Salaries are noted in Canadian dollars.

TABLE 1

U.S. states and territories ranked by average salary

District of Columbia	\$149,159	Louisiana	\$105,759	Alabama	\$100,421	Delaware	\$93,667
Alaska	124,600	Utah	105,624	Oklahoma	99,183	Maine	92,878
Massachusetts	124,102	Illinois	105,059	Rhode Island	99,056	Indiana	92,741
California	120,301	Nevada	104,951	Michigan	98,764	Iowa	91,411
Montana	120,000	Virginia	104,739	Hawaii	97,207	Mississippi	91,222
Vermont	117,667	Washington	104,582	West Virginia	96,968	South Carolina	90,210
New Jersey	117,404	North Carolina	104,322	Missouri	96,577	Oregon	88,915
New Mexico	116,625	Arizona	103,360	Idaho	96,167	Nebraska	87,314
Maryland	114,937	Connecticut	103,101	Tennessee	95,950	North Dakota	87,000
New York	113,929	New Hampshire	103,023	Kentucky	95,881	Wisconsin	85,611
Texas	109,712	Colorado	102,576	Pennsylvania	94,457	Kansas	84,692
Georgia	108,710	Arkansas	101,555	Ohio	94,073	Puerto Rico	74,397
Florida	106,033	Minnesota	100,876	Wyoming	94,000	South Dakota	61,300

Table 1 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

Quality professionals in Washington, D.C., have the highest average salary at \$149,159. The lowest pay is in South Dakota, in which our respondents average \$61,300 per year.

「MONEY TALKS」

In what way has your own job changed permanently due to COVID-19?

COVID-19 mask requirements have made it harder to communicate and understand others. The face coverings make it that much more difficult to read body language as well.

Ken Lawrence
Quality manager | Greystone of Virginia | Toano, VA

FIGURE 3

Percentage of respondents and cost of living by state and territory

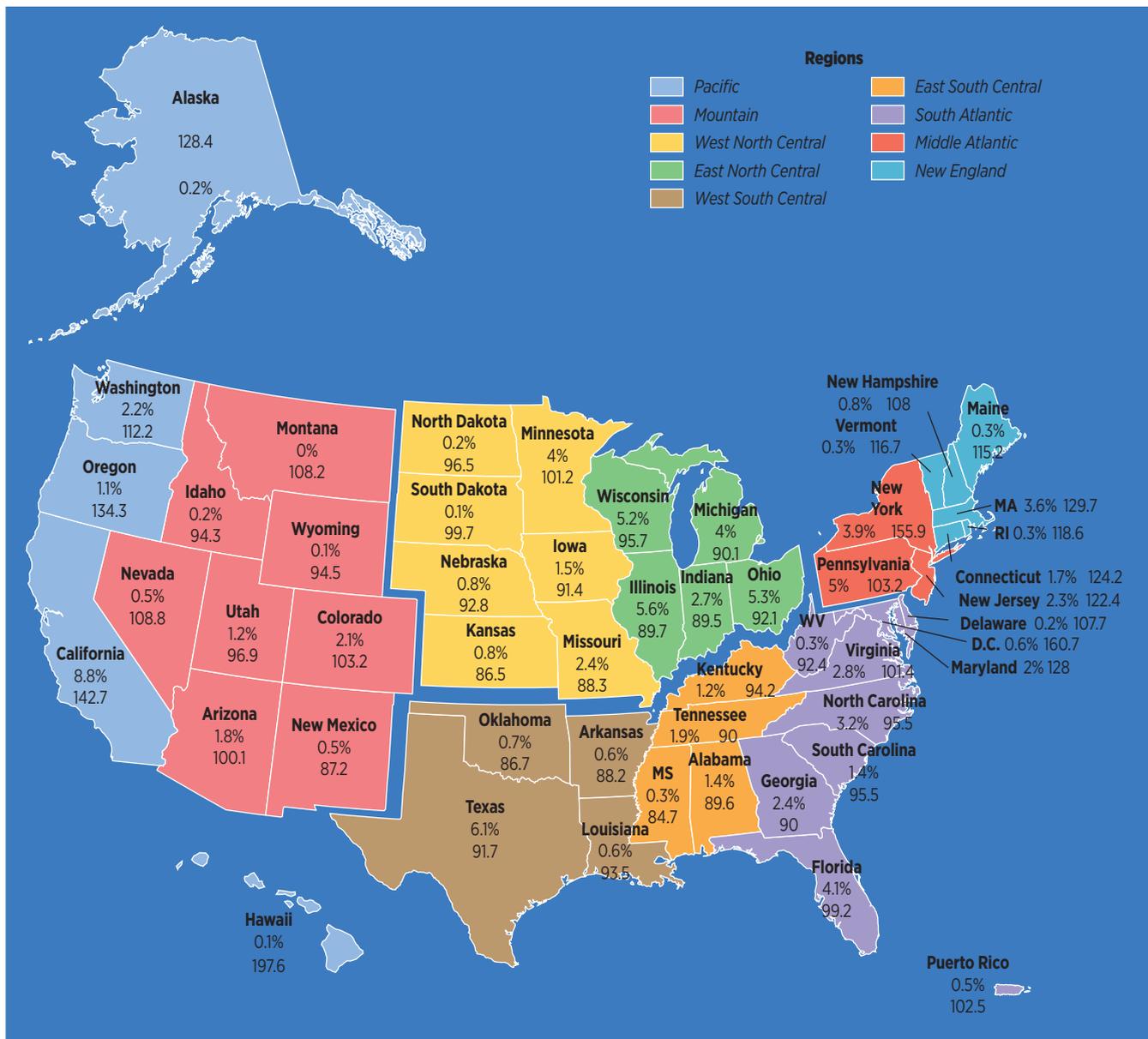


Figure 3 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees, \bar{x} International employees

Note: Percentages may not equal 100% due to rounding. Total U.S. full-time employees naming a primary state: 4,185.

Source: Missouri Economic Research and Information Center, www.missourieconomy.org/indicators/cost_of_living. Cost-of-living figures are for Q1, 2020. www.missourieconomy.org/data/cost-living-data-series.

Puerto Rico: Cost of living in Puerto Rico is 6.63% lower than in United States for Q1 2020. The cost of living index for Puerto Rico was obtained from www.numbeo.com/cost-of-living/country_result.jsp?country=Puerto+Rico.

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 2

Salary by U.S. region and job title

	Pacific	Mountain	West North Central	West South Central	East North Central	East South Central	South Atlantic	Middle Atlantic	New England
All respondents	\$114,595 ⁴⁰²	\$104,525 ²¹⁰	\$95,403 ³²⁰	\$107,915 ²⁵⁷	\$95,529 ⁷⁴¹	\$96,987 ¹⁵⁹	\$105,880 ⁵⁶⁹	\$105,969 ³⁶⁸	\$114,069 ²²⁶
Analyst	93,882 ¹⁷	75,318 ⁸	63,575 ¹¹	89,168 ⁴	77,236 ¹⁵	63,000 ³	68,892 ¹⁹	69,556 ⁹	72,667 ³
Associate	63,667 ³	n = 1	54,105 ⁴	70,636 ²	43,441 ⁷	49,000 ⁴	63,000 ²	79,500 ²	59,500 ⁶
Auditor	114,006 ¹³	80,783 ⁸	69,519 ¹²	75,810 ¹⁰	78,283 ²⁶	110,077 ⁶	93,655 ³¹	92,294 ¹⁴	84,544 ⁴
Black Belt	103,133 ³	106,500 ²	87,333 ³	112,333 ⁶	91,085 ¹⁰	—	101,055 ¹⁰	85,900 ⁵	—
Calibration technician	n = 1	77,667 ³	n = 1	85,250 ²	52,835 ⁴	n = 1	46,467 ³	43,500 ²	n = 1
Champion	—	100,333 ³	—	n = 1	n = 1	—	—	112,500 ³	n = 1
Consultant	134,250 ⁴	167,167 ³	112,500 ²	136,442 ¹²	117,871 ¹⁰	—	122,123 ¹³	120,211 ⁶	128,333 ³
Coordinator	69,625 ⁸	65,355 ⁴	59,516 ⁷	78,542 ⁶	67,271 ¹⁹	69,583 ⁶	61,084 ⁸	58,364 ¹¹	53,667 ³
Director	158,945 ⁴⁴	140,860 ²⁹	124,354 ²⁶	137,735 ³⁴	134,456 ⁸¹	134,214 ¹⁴	144,529 ⁵⁷	143,083 ³⁸	169,744 ²⁹
Educator/instructor	n = 1	93,500 ⁴	n = 1	n = 1	141,020 ⁵	n = 1	104,626 ⁷	106,500 ²	123,333 ³
Green Belt	n = 1	—	69,000 ²	58,646 ³	72,050 ⁶	n = 1	90,993 ³	76,933 ³	—
Inspector	66,351 ¹⁰	51,425 ⁴	56,859 ⁵	51,213 ⁴	45,807 ⁹	85,500 ²	54,063 ⁹	42,833 ³	55,333 ⁶
Manager	117,528 ¹¹⁵	109,534 ⁶⁰	104,424 ⁹³	108,132 ⁸⁰	97,779 ²²⁸	105,124 ⁵¹	110,418 ¹⁷⁶	112,203 ¹¹⁵	116,139 ⁶⁰
Master Black Belt	147,169 ⁵	—	136,500 ⁴	140,500 ²	122,250 ¹⁶	—	147,778 ⁹	128,333 ³	n = 1
Other	87,250 ⁴	66,000 ²	58,667 ³	92,350 ⁴	69,220 ⁵	60,804 ³	76,586 ⁷	110,375 ⁸	105,000 ³
Process/manufacturing/project engineer	89,716 ⁸	104,100 ⁵	95,730 ¹⁰	97,000 ⁴	106,402 ¹⁴	83,500 ⁶	106,790 ¹¹	74,636 ¹¹	106,686 ⁷
Quality engineer	101,306 ⁵⁹	86,035 ³⁴	86,259 ⁵⁷	100,576 ⁴⁰	81,117 ¹⁴²	85,378 ²⁵	92,459 ⁸⁴	89,227 ⁶⁰	95,576 ⁴⁹
Reliability/safety engineer	135,088 ⁸	130,500 ²	117,500 ²	144,960 ⁵	115,516 ⁵	123,667 ³	144,935 ²	n = 1	103,000 ⁵
Software quality engineer	135,286 ¹³	96,790 ⁵	97,060 ³	n = 1	119,167 ⁶	—	116,895 ⁴	98,208 ³	—
Specialist	92,565 ²⁷	98,533 ⁶	77,840 ²⁵	89,652 ¹⁰	76,820 ³⁸	72,535 ¹²	78,288 ⁴⁰	95,725 ²⁰	101,874 ⁸
Statistician	171,000 ²	n = 1	152,743 ³	—	n = 1	n = 1	142,385 ⁵	—	n = 1
Supervisor	72,867 ¹²	83,667 ³	75,904 ¹²	97,071 ⁷	78,295 ²⁰	—	80,528 ¹²	81,875 ¹⁶	80,267 ³
Supplier quality engineer/professional	108,164 ¹⁷	103,917 ⁶	104,950 ¹¹	98,600 ¹⁰	97,628 ³⁰	106,600 ⁵	104,573 ²⁰	103,192 ¹²	105,784 ¹¹
Technician	52,691 ¹²	61,189 ⁹	52,122 ¹²	34,000 ³	54,698 ²⁶	57,335 ⁸	47,598 ¹⁵	47,500 ⁸	46,816 ⁷
Vice president/executive	214,009 ¹⁵	166,250 ⁸	182,836 ¹¹	158,167 ⁶	193,042 ¹⁷	157,857 ⁷	197,171 ²²	241,308 ¹³	205,583 ¹²

Table 2 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.
All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.
Superscript numbers denote the number of respondents.

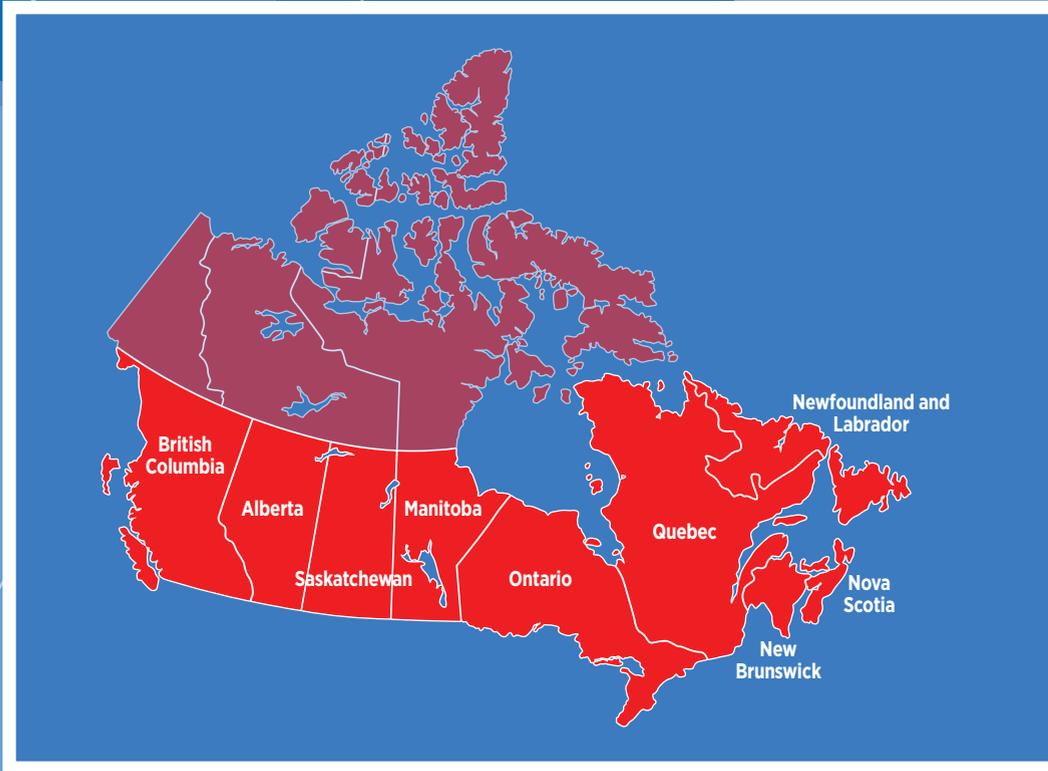


TABLE 3

Salary by Canadian province and job title

	Alberta	British Columbia	Manitoba	Nova Scotia	Ontario	Quebec	Saskatchewan
Analyst	n = 1	n = 1	\$80,750 ²	—	\$76,933 ³	n = 1	\$79,927 ²
Auditor	—	—	—	—	47,000 ²	—	—
Black Belt	n = 1	—	—	—	—	—	—
Coordinator	—	—	—	n = 1	58,500 ⁴	—	—
Director	\$132,500 ²	n = 1	—	n = 1	118,167 ⁶	n = 1	—
Inspector	—	—	—	—	67,000 ³	—	—
Manager	96,250 ⁴	\$102,886 ¹⁰	101,000 ⁵	—	89,930 ³⁴	\$88,000 ⁵	n = 1
Process/manufacturing/project engineer	—	—	—	—	67,600 ⁵	—	—
Quality engineer	—	n = 1	—	—	70,846 ⁹	—	n = 1
Reliability/safety engineer	71,252 ²	—	—	—	—	—	—
Specialist	93,500 ²	n = 1	n = 1	n = 1	67,408 ³	n = 1	85,000 ³
Supervisor	72,725 ³	—	—	—	96,000 ²	—	—
Technician	—	75,000 ²	—	n = 1	51,750 ⁴	n = 1	—

Table 3 includes results for: x Full-time employees, _ Part-time employees, _ U.S. employees, x Canadian employees, _ International employees

All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

Salaries are noted in Canadian dollars. Superscript numbers denote the number of respondents.

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 4

Salary details by U.S. state and territory

	Minimum	Maximum	Standard deviation	Count	Mean	Median
Alabama	\$33,000	\$220,000	\$34,006	47	\$100,421	\$96,000
Arizona	63,000	170,000	39,665	5	124,600	125,000
Arkansas	46,000	300,000	44,511	59	103,360	92,000
California	32,000	237,800	44,195	19	101,555	97,000
Colorado	36,000	302,132	50,175	286	120,301	110,000
Connecticut	49,000	220,000	35,761	68	102,576	99,000
Delaware	42,000	225,000	34,493	54	103,101	102,500
District of Columbia	61,000	108,000	18,305	6	93,667	102,500
Florida	65,000	230,000	45,224	20	149,159	156,000
Georgia	38,679	250,000	40,915	132	106,033	99,000
Idaho	24,000	330,000	44,583	77	108,710	100,000
Illinois	78,500	120,000	21,050	3	97,207	93,120
Indiana	44,000	150,000	39,640	6	96,167	91,500
Iowa	32,000	333,000	42,794	183	105,059	95,000
Kansas	36,000	190,000	29,886	87	92,741	89,000
Kentucky	43,200	187,000	31,719	50	91,411	81,750
Louisiana	41,472	150,000	28,569	27	84,692	78,000
Maine	41,600	260,000	40,811	40	95,881	90,500
Maryland	43,251	200,000	40,478	19	105,759	112,000
Massachusetts	40,000	200,000	48,687	9	92,878	82,000
Michigan	30,000	350,000	52,426	65	114,937	105,000
Minnesota	33,000	290,000	53,946	118	124,102	112,500
Mississippi	35,000	285,000	40,713	131	98,764	94,100
Missouri	34,000	280,000	36,989	131	100,876	95,000
Montana	60,000	151,000	26,593	9	91,222	90,000
Nebraska	36,000	280,000	40,033	79	96,577	91,500
Nevada	42,100	173,000	34,376	25	87,314	85,000
New Hampshire	21,000	195,000	39,347	17	104,951	102,000
New Jersey	35,000	220,000	37,891	27	103,023	100,000
New Mexico	42,000	292,000	46,059	76	117,404	106,339
New York	60,000	222,700	42,012	17	116,625	105,000
North Carolina	39,416	400,000	56,819	128	113,929	105,000
North Dakota	40,000	203,000	36,984	104	104,322	99,000
Ohio	55,000	140,000	29,840	6	87,000	85,500
Oklahoma	30,000	255,000	35,314	171	94,073	88,000
Oregon	55,000	155,500	29,659	22	99,183	96,000
Pennsylvania	34,000	220,000	36,468	35	88,915	85,000
Puerto Rico	32,000	249,000	34,816	164	94,457	91,000
Rhode Island	24,960	118,000	28,957	17	74,397	72,800
South Carolina	22,000	252,000	62,586	9	99,056	91,000
South Dakota	36,000	182,000	33,173	47	90,210	80,000
Tennessee	30,000	185,000	37,512	63	95,950	89,000
Texas	32,261	295,000	42,950	197	109,712	103,000
Utah	24,000	255,000	44,894	40	105,624	98,914
Vermont	54,000	195,000	50,995	9	117,667	106,000
Virginia	40,600	220,000	38,887	92	104,739	99,343
Washington	36,400	185,000	36,791	73	104,582	105,000
West Virginia	25,112	178,000	45,908	9	96,968	96,000
Wisconsin	26,000	175,000	30,503	169	85,611	80,000

Table 4 includes results for:
 x Full-time employees,
 _ Part-time employees,
 x U.S. employees,
 _ Canadian employees,
 _ International employees

TABLE 5 - CONTINUED THROUGH P. 79

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Alabama	Director	\$112,000	\$150,000	\$19,009	3	\$130,667	\$130,000
	Manager	50,000	144,900	23,634	16	106,747	108,650
	Quality engineer	70,000	155,000	26,875	9	94,444	91,000
	Reliability/safety engineer	85,000	152,000	34,675	3	123,667	134,000
	Vice president/executive	93,000	220,000	73,323	3	135,333	93,000
Arizona	Analyst	57,096	85,000	11,556	6	68,924	65,000
	Auditor	51,000	92,000	19,227	4	79,500	87,500
	Director	116,000	235,000	40,474	7	154,273	140,114
	Manager	75,000	165,000	27,527	16	107,248	105,500
	Quality engineer	60,000	112,000	17,525	8	87,625	88,000
	Software quality engineer	90,000	111,300	10,722	3	99,933	98,500
	Supplier quality engineer/professional	68,000	110,000	23,965	3	95,667	109,000
Arkansas	Director	85,000	158,500	26,577	5	124,217	126,000
	Manager	67,000	100,500	12,031	6	87,444	88,333
	Supplier quality engineer/professional	70,000	118,000	24,826	3	97,667	105,000
California	Analyst	55,000	155,000	31,850	12	92,963	87,500
	Auditor	76,000	160,000	27,683	11	114,280	111,084
	Coordinator	45,000	135,000	32,837	7	73,571	70,000
	Director	70,000	300,000	60,324	34	169,204	157,500
	Inspector	44,011	115,000	27,884	7	76,787	73,500
	Manager	54,000	226,159	34,397	84	120,884	118,095
	Other	59,000	145,000	40,335	4	87,250	72,500
	Process/manufacturing/project engineer	56,000	156,000	37,958	5	97,400	85,000
	Quality engineer	50,000	199,799	31,097	43	106,372	100,000
	Reliability/safety engineer	109,000	145,000	19,216	4	127,425	127,850
	Software quality engineer	92,700	200,000	31,706	9	139,691	140,000
	Specialist	47,840	160,000	31,755	14	95,580	88,000
	Supervisor	48,000	105,000	18,548	10	72,886	72,250
	Supplier quality engineer/professional	69,000	150,000	23,919	14	112,552	104,956
	Technician	36,000	69,992	12,285	5	52,998	52,000
	Vice president/executive	175,000	302,132	40,488	12	227,928	223,000

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 5 - CONTINUED FROM P. 71

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Colorado	Coordinator	\$55,000	\$69,000	\$7,810	3	\$64,000	\$68,000
	Director	90,000	165,000	26,380	8	128,125	131,750
	Manager	55,000	180,000	28,048	20	115,985	115,000
	Quality engineer	58,000	115,000	16,179	12	73,900	71,000
	Supplier quality engineer/professional	61,500	150,000	45,624	3	112,167	125,000
	Technician	65,000	75,000	4,816	4	71,175	72,350
	Vice president/executive	140,000	220,000	40,927	3	175,000	165,000
Connecticut	Director	131,000	225,000	43,416	4	166,250	154,500
	Inspector	42,000	70,000	14,189	3	54,667	52,000
	Manager	60,000	167,250	24,528	19	111,755	111,436
	Process/manufacturing/project engineer	75,000	110,000	17,898	3	90,333	86,000
	Quality engineer	73,800	128,500	17,447	9	89,367	81,000
District of Columbia	Director	90,000	230,000	57,679	4	159,750	159,500
	Manager	86,550	215,913	43,658	8	145,308	148,500
	Vice president/executive	175,000	205,000	16,073	3	186,667	180,000
Florida	Auditor	65,000	150,000	30,540	7	98,000	105,000
	Black Belt	83,500	105,000	8,362	6	91,092	88,525
	Consultant	114,000	159,000	23,388	4	134,500	132,500
	Director	102,000	220,000	38,230	12	152,875	155,000
	Inspector	47,366	65,000	9,088	3	57,455	60,000
	Manager	63,000	175,000	27,211	36	109,023	110,000
	Process/manufacturing/project engineer	71,500	162,000	39,330	6	106,417	90,000
	Quality engineer	58,000	149,000	23,495	22	91,280	83,000
	Specialist	40,000	82,750	18,413	7	58,893	50,000
	Supplier quality engineer/professional	66,000	127,500	24,674	7	92,300	90,000
	Vice president/executive	100,000	250,000	47,892	7	174,000	163,000
Georgia	Auditor	52,000	96,000	19,308	4	80,130	86,260
	Director	98,000	182,500	24,304	9	138,900	138,000
	Manager	70,000	170,000	26,425	28	112,667	110,000
	Quality engineer	75,000	118,000	13,146	7	96,123	95,000
	Specialist	58,000	108,546	15,074	10	79,695	75,050
	Vice president/executive	150,000	330,000	81,176	4	226,250	212,500
Idaho	Manager	70,000	130,000	30,139	3	101,667	105,000

Table 5 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, $_$ Canadian employees, $_$ International employees

TABLE 5 — CONTINUED FROM P. 72

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Illinois	Analyst	\$65,000	\$125,000	\$20,459	7	\$83,714	\$80,000
	Auditor	53,500	120,200	29,130	5	79,940	70,000
	Black Belt	95,000	110,000	8,079	3	104,233	107,700
	Consultant	85,000	150,000	34,034	3	111,667	100,000
	Coordinator	47,000	150,000	41,527	5	82,000	70,000
	Director	81,000	212,000	37,637	27	140,602	140,000
	Green Belt	62,500	81,300	10,854	3	75,033	81,300
	Inspector	45,000	58,000	6,807	3	50,333	48,000
	Manager	44,000	191,461	33,763	55	105,122	101,000
	Master Black Belt	112,000	143,000	12,361	6	129,000	130,500
	Process/manufacturing/project engineer	89,000	137,000	24,062	3	112,000	110,000
	Quality engineer	50,000	133,930	17,107	30	83,467	80,000
	Specialist	57,000	122,000	24,336	5	84,650	77,000
	Supervisor	55,000	120,000	21,373	8	84,255	84,559
	Supplier quality engineer/professional	70,012	147,000	30,598	6	100,552	87,500
Vice president/executive	152,000	333,000	63,987	7	210,191	191,335	
Indiana	Auditor	60,000	140,000	37,877	6	97,667	93,000
	Director	90,000	190,000	33,951	7	125,557	118,000
	Manager	50,000	140,000	21,502	30	91,368	88,500
	Master Black Belt	99,500	149,000	25,448	3	120,833	114,000
	Quality engineer	60,000	140,065	27,222	14	96,683	88,500
	Specialist	51,000	145,000	35,760	5	83,600	75,000
	Technician	50,000	62,000	4,471	7	56,786	55,000
Iowa	Auditor	72,800	75,000	1,217	3	73,600	73,000
	Manager	75,000	140,000	22,286	13	108,038	105,000
	Process/manufacturing/project engineer	65,000	80,000	7,672	3	73,433	75,300
	Quality engineer	52,000	104,000	14,414	13	77,408	75,000
	Specialist	58,500	81,000	12,217	3	72,500	78,000
	Supplier quality engineer/professional	121,000	130,000	4,509	3	125,333	125,000
Kansas	Director	50,000	150,000	50,332	3	96,667	90,000
	Manager	70,000	130,000	20,264	10	100,990	100,000
Kentucky	Director	88,000	170,000	33,819	5	118,200	115,000
	Manager	62,000	142,000	24,366	13	100,531	103,000
	Quality engineer	60,000	91,000	11,423	5	73,280	72,400
	Specialist	65,000	92,422	12,757	5	77,884	75,000
Louisiana	Technician	41,600	55,432	7,203	3	49,677	52,000
	Auditor	54,000	74,000	11,269	3	61,000	55,000
	Manager	112,000	151,000	15,065	6	120,833	115,000
	Quality engineer	62,000	200,000	69,000	3	130,948	130,845

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 5 - CONTINUED FROM P. 73

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Maryland	Analyst	\$52,000	\$130,000	\$43,667	3	\$102,340	\$125,020
	Director	93,000	247,000	49,929	7	157,126	165,000
	Manager	30,000	175,000	31,164	23	112,370	115,000
	Quality engineer	69,625	167,000	28,320	12	105,759	99,500
	Specialist	56,000	105,000	17,105	6	80,167	84,500
	Vice president/executive	210,000	350,000	71,473	3	271,667	255,000
Massachusetts	Director	96,000	225,000	32,028	19	179,662	183,000
	Manager	75,720	235,000	40,294	27	126,519	120,000
	Process/manufacturing/project engineer	90,000	145,000	27,502	3	117,333	117,000
	Quality engineer	40,000	184,000	35,605	28	99,737	99,955
	Reliability/safety engineer	60,000	138,000	40,841	3	106,000	120,000
	Specialist	39,993	157,000	54,411	5	100,399	88,000
	Supplier quality engineer/professional	80,000	121,000	15,526	7	107,375	115,000
	Technician	33,000	62,192	11,445	5	44,142	39,520
Michigan	Vice president/executive	103,000	290,000	55,752	8	206,625	212,500
	Consultant	92,000	149,000	28,513	3	121,000	122,000
	Director	70,000	200,000	35,257	12	121,598	120,000
	Manager	35,000	150,000	26,237	42	95,406	92,250
	Master Black Belt	80,000	130,000	21,618	4	111,000	117,000
	Process/manufacturing/project engineer	91,000	133,000	18,189	5	108,726	108,000
	Quality engineer	45,000	128,000	22,766	27	78,293	80,000
	Specialist	60,000	135,000	31,184	7	100,500	96,000
	Supplier quality engineer/professional	68,000	120,000	19,058	7	102,357	105,000
	Technician	40,000	54,000	7,572	3	48,667	52,000
Minnesota	Vice president/executive	100,000	285,000	65,179	6	215,731	237,193
	Analyst	64,500	105,000	17,466	4	79,875	75,000
	Director	102,000	170,078	20,302	9	132,731	130,000
	Inspector	34,000	77,000	20,170	4	53,154	50,808
	Manager	73,000	200,000	29,203	40	110,911	105,500
	Process/manufacturing/project engineer	63,000	134,000	28,210	5	109,400	110,000
	Quality engineer	56,000	140,000	16,762	28	88,890	89,550
	Specialist	63,000	118,000	18,697	12	86,386	84,000
	Statistician	123,040	190,190	34,238	3	152,743	145,000
	Supervisor	56,000	72,000	7,550	4	60,788	57,575
	Supplier quality engineer/professional	76,000	136,000	25,711	4	111,125	116,250
	Technician	46,800	75,000	9,847	7	57,123	53,537
Mississippi	Vice president/executive	99,200	280,000	91,582	3	198,067	215,000
	Manager	90,000	151,000	29,760	4	106,500	92,500

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

TABLE 5 - CONTINUED FROM P. 74

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Missouri	Analyst	\$59,953	\$66,300	\$3,239	3	\$62,751	\$62,000
	Director	109,000	148,000	17,059	4	123,350	118,200
	Manager	52,000	151,659	26,650	25	97,694	93,000
	Master Black Belt	102,000	159,000	29,704	3	135,333	145,000
	Quality engineer	72,000	142,000	27,943	8	97,633	89,405
	Specialist	36,658	105,000	22,399	8	69,985	71,500
	Supervisor	57,000	120,000	27,250	4	85,625	82,750
	Technician	36,000	58,000	11,060	3	46,333	45,000
	Vice president/executive	125,000	280,000	54,168	6	179,167	165,000
Nebraska	Auditor	46,000	60,000	8,083	3	50,667	46,000
	Coordinator	48,410	105,000	29,230	3	72,470	64,000
	Director	85,000	173,000	25,947	7	128,604	130,000
	Manager	78,000	101,223	11,775	3	90,741	93,000
	Quality engineer	50,000	100,000	23,945	4	77,550	80,100
Nevada	Manager	94,760	195,000	38,637	6	121,627	106,000
New Hampshire	Director	100,000	220,000	52,529	5	136,400	103,000
	Manager	75,000	140,000	28,378	7	108,000	115,000
	Quality engineer	60,000	120,000	25,298	7	95,770	98,000
New Jersey	Director	92,000	210,000	38,918	10	145,812	144,000
	Manager	48,800	220,000	35,878	30	121,141	111,500
	Quality engineer	57,750	137,000	20,397	12	91,146	86,000
	Specialist	75,000	139,000	27,457	7	104,286	90,000
	Vice president/executive	190,000	292,000	51,082	3	239,333	236,000
New Mexico	Manager	79,000	160,000	40,951	3	123,000	130,000

Table 5 includes results for: *x* Full-time employees, *_* Part-time employees, *x* U.S. employees, *_* Canadian employees, *_* International employees

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 5 - CONTINUED FROM P. 75

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
New York	Analyst	42,000	60,000	10,392	3	54,000	60,000
	Auditor	39,416	150,000	47,164	4	96,604	98,500
	Black Belt	56,500	81,000	12,319	3	69,500	71,000
	Champion	65,000	169,000	52,581	3	112,500	103,500
	Consultant	140,000	145,000	2,887	3	141,667	140,000
	Coordinator	55,000	135,000	44,306	3	84,000	62,000
	Director	100,000	250,000	42,273	11	160,103	150,000
	Manager	67,000	193,453	24,744	40	115,356	113,000
	Other	75,000	160,000	46,458	3	128,333	150,000
	Process/manufacturing/project engineer	60,000	90,000	12,945	4	76,750	78,500
	Quality engineer	60,000	138,000	22,725	18	95,838	92,500
	Specialist	57,000	150,000	31,504	7	91,143	77,000
	Supervisor	54,000	105,000	16,983	8	77,125	81,500
	Supplier quality engineer/professional	61,200	125,000	27,817	5	95,240	85,000
	Technician	45,000	60,000	7,638	3	51,667	50,000
Vice president/executive	100,000	400,000	111,681	7	266,429	235,000	
North Carolina	Analyst	\$40,000	\$82,200	\$22,018	3	\$64,733	\$72,000
	Auditor	60,000	144,583	32,574	5	99,342	87,125
	Consultant	81,000	168,000	43,920	3	128,000	135,000
	Director	110,000	180,000	23,899	11	143,691	140,000
	Manager	52,000	163,000	28,687	32	107,656	103,146
	Master Black Belt	125,000	165,000	23,094	3	151,667	165,000
	Quality engineer	52,000	105,000	15,030	12	82,175	81,800
	Specialist	60,000	100,000	15,323	8	78,725	75,650
	Supplier quality engineer/professional	70,000	180,000	40,826	7	110,529	94,000
	Technician	44,000	63,000	7,782	6	49,167	45,000
Ohio	Analyst	50,000	78,000	12,307	4	65,385	66,770
	Auditor	39,000	160,000	37,096	9	72,261	64,000
	Black Belt	87,152	95,000	3,248	4	91,538	92,000
	Coordinator	43,000	85,000	17,356	7	61,714	57,000
	Director	65,000	190,000	31,449	19	137,189	142,600
	Manager	54,000	177,000	26,207	48	98,722	91,500
	Quality engineer	59,000	128,000	14,521	37	84,451	82,000
	Software quality engineer	100,000	159,000	31,786	3	136,333	150,000
	Specialist	50,000	107,000	17,179	11	67,455	68,000
	Supervisor	57,200	87,500	16,998	3	67,900	59,000
	Supplier quality engineer/professional	58,000	145,000	24,384	9	100,836	105,000
	Technician	30,000	100,000	26,431	7	56,666	53,000
Oklahoma	Manager	55,000	115,000	18,185	11	94,091	95,000

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

TABLE 5 - CONTINUED FROM P. 76

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Oregon	Analyst	64,336	115,000	25,368	3	90,445	92,000
	Manager	49,000	154,000	42,971	5	92,000	92,000
	Process/manufacturing/project engineer	64,231	88,000	11,964	3	76,910	78,500
	Quality engineer	77,000	102,000	9,800	6	87,083	86,000
	Specialist	48,000	118,000	31,831	4	71,305	59,610
Pennsylvania	Analyst	\$56,000	\$124,000	\$26,599	5	\$78,000	\$68,000
	Auditor	47,000	145,000	32,276	9	90,856	86,000
	Coordinator	35,000	55,000	7,480	7	47,571	50,000
	Director	80,000	177,915	22,534	17	130,466	126,000
	Manager	45,000	185,000	29,876	45	103,442	99,389
	Other	52,000	145,000	37,859	5	99,600	92,000
	Process/manufacturing/project engineer	55,000	90,000	10,861	7	73,429	71,000
	Quality engineer	48,000	120,000	19,287	30	84,492	84,750
	Specialist	55,000	148,000	35,435	6	91,083	76,750
	Supervisor	45,000	115,000	24,221	6	76,667	75,000
	Supplier quality engineer/professional	86,000	110,000	9,513	5	96,500	97,500
Puerto Rico	Analyst	32,000	76,000	21,546	4	43,750	33,500
	Director	110,000	249,000	70,074	3	184,667	195,000
	Manager	24,960	110,000	33,278	5	80,592	83,000
South Carolina	Quality engineer	53,000	102,048	21,407	5	76,570	72,800
	Auditor	70,000	101,000	10,889	6	80,167	76,000
	Manager	36,000	135,000	27,625	10	89,600	82,000
	Quality engineer	55,000	182,000	35,556	13	91,110	83,000
Tennessee	Specialist	55,500	131,000	40,679	3	84,500	67,000
	Auditor	59,000	185,000	51,460	4	122,820	123,640
	Coordinator	46,000	80,000	17,088	3	64,000	66,000
	Director	136,000	160,000	11,776	6	149,333	150,000
	Manager	50,000	151,000	27,968	18	106,693	96,750
	Quality engineer	50,500	147,300	27,322	10	84,805	84,750
	Specialist	38,000	127,000	32,119	6	71,000	72,500
Technician	37,650	79,000	21,676	4	59,913	61,500	

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 5 - CONTINUED FROM P. 77

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Texas	Analyst	\$63,345	\$105,000	\$20,966	3	\$82,782	\$80,000
	Auditor	70,600	115,000	18,156	5	89,220	92,500
	Black Belt	85,000	137,000	19,295	5	106,400	100,000
	Consultant	63,000	200,000	42,658	11	127,227	135,000
	Coordinator	55,000	110,000	27,043	5	85,600	97,000
	Director	45,000	206,000	43,761	26	140,708	150,000
	Green Belt	57,000	61,339	2,351	3	58,646	57,600
	Inspector	40,000	76,850	18,478	3	57,617	56,000
	Manager	43,680	295,000	38,254	57	111,682	105,000
	Other	67,000	115,000	19,889	4	92,350	93,700
	Process/manufacturing/project engineer	68,000	138,000	36,510	3	97,000	85,000
	Quality engineer	50,000	255,680	36,752	34	100,939	90,000
	Reliability/safety engineer	121,000	177,800	27,259	4	148,450	147,500
	Specialist	42,000	176,000	47,099	7	76,146	65,600
	Supervisor	45,000	165,000	55,979	6	104,083	99,250
	Supplier quality engineer/professional	71,000	135,000	23,252	7	99,000	102,000
	Technician	32,261	36,000	1,883	3	34,000	33,738
Vice president/executive	108,000	255,000	59,091	5	159,800	158,000	
Utah	Director	82,000	195,000	33,875	10	141,800	136,500
	Manager	59,000	167,000	33,575	11	92,059	85,000
	Quality engineer	64,890	125,000	17,017	9	93,666	90,000
Vermont	Manager	55,000	142,000	35,819	4	99,500	100,500
Virginia	Analyst	41,000	75,000	12,685	7	60,286	58,000
	Auditor	75,000	157,000	43,775	4	117,250	118,500
	Consultant	97,000	145,000	24,826	3	117,333	110,000
	Director	55,000	195,000	39,232	12	127,875	125,000
	Manager	65,200	182,240	31,331	29	110,799	100,000
	Other	55,600	160,000	59,182	3	91,700	59,500
	Process/manufacturing/project engineer	86,000	108,500	11,338	3	98,062	99,685
	Quality engineer	58,562	139,000	25,208	10	98,406	91,500
	Specialist	47,500	120,000	38,003	3	90,336	103,509
	Supervisor	100,000	108,500	4,444	3	103,500	102,000
	Technician	44,808	74,776	15,070	3	58,861	57,000
Vice president/executive	156,755	220,000	33,355	3	182,252	170,000	

Table 5 includes results for: Full-time employees, Part-time employees, U.S. employees, Canadian employees, International employees

Salary by U.S. state and territory

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Washington	Director	\$70,000	\$166,000	\$35,658	6	\$137,333	\$149,000
	Manager	70,000	185,000	32,321	24	113,267	106,250
	Quality engineer	70,000	123,000	18,806	10	88,054	82,578
	Reliability/safety engineer	120,000	176,000	27,633	4	142,750	137,500
	Software quality engineer	120,000	135,000	7,111	4	125,375	123,250
	Specialist	36,400	133,000	34,955	9	97,322	120,000
	Technician	47,000	58,000	4,207	5	51,200	50,000
West Virginia	Manager	120,000	178,000	27,657	4	137,250	125,500
Wisconsin	Auditor	51,750	79,560	13,657	4	67,324	68,992
	Consultant	84,513	165,000	38,457	4	120,178	115,600
	Coordinator	47,000	74,000	11,926	5	57,190	52,250
	Director	84,000	175,000	22,803	16	134,375	135,000
	Inspector	38,000	43,340	2,698	3	40,447	40,000
	Manager	52,000	136,000	21,501	53	94,815	95,000
	Process/manufacturing/project engineer	100,000	108,000	4,163	3	103,333	102,000
	Quality engineer	40,000	94,000	13,735	34	71,248	72,000
	Reliability/safety engineer	69,700	145,000	37,990	3	104,421	98,562
	Specialist	42,223	104,460	21,377	10	63,241	59,365
	Supervisor	65,000	92,000	10,619	6	75,526	71,577
	Supplier quality engineer/professional	62,000	120,000	22,839	6	86,000	83,000
	Technician	50,000	60,000	3,729	7	54,714	54,000

Table 5 includes results for: *x* Full-time employees, *_* Part-time employees, *x* U.S. employees, *_* Canadian employees, *_* International employees

「MONEY TALKS」

In what way has your workplace changed permanently due to COVID-19?



It's hard to tell at the moment, but I anticipate either an expectation of more employees working remotely or acceptance of a more flexible and remote work situation. This time has demonstrated that we can meet business objectives and continue supplying products, where some staff work completely remotely. Obviously, certain functions, like manufacturing and testing, must be on-site to fulfill certain responsibilities. But a significant amount of the work we do can be done remotely, with no impact on the overall quality of that work.

Virginia Andreotti-Jones
Quality assurance supervisor | Partner Therapeutics | Lynnwood, WA

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED THROUGH P. 91

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Pacific Region							
Los Angeles, Riverside and Orange County (CA)	Analyst	\$56,000	\$136,000	\$29,997	5	\$95,400	\$93,000
	Auditor	76,000	160,000	28,164	8	105,261	98,042
	Coordinator	46,000	97,000	23,329	4	65,750	60,000
	Director	87,500	300,000	71,250	9	165,222	141,500
	Inspector	44,011	55,000	6,345	3	51,337	55,000
	Manager	54,000	190,000	31,417	40	112,379	105,000
	Other	59,000	145,000	44,106	3	96,333	85,000
	Quality engineer	57,000	160,000	26,534	14	102,136	99,000
	Software quality engineer	92,700	130,000	15,906	4	113,175	115,000
	Specialist	88,000	160,000	36,585	3	127,762	135,286
	Supervisor	48,000	105,000	20,278	5	74,700	72,500
	Supplier quality engineer/professional	69,000	150,000	28,775	9	113,500	104,000
	Vice president/executive	175,000	242,000	31,658	4	196,250	184,000
Portland and Salem (OR and WA)	Manager	49,000	154,000	33,787	8	88,125	83,500
	Quality engineer	77,000	102,000	8,976	7	86,808	85,155
	Specialist	48,000	87,500	17,213	4	63,680	59,610
Sacramento and Yolo (CA)	Director	100,000	220,000	60,797	3	154,333	143,000
	Manager	95,000	178,000	30,407	6	146,833	152,500
San Diego (CA)	Analyst	55,000	107,556	23,863	4	75,639	70,000
	Director	74,000	210,000	46,572	6	155,167	153,500
	Manager	70,000	160,000	33,211	11	104,442	98,000
	Quality engineer	50,000	170,000	29,068	14	104,629	100,000
	Specialist	75,000	93,000	9,292	3	85,333	88,000
	Vice president/executive	205,000	270,000	29,781	4	230,250	223,000
San Francisco, Oakland and San Jose (CA)	Auditor	102,000	148,000	25,736	3	118,333	105,000
	Director	90,000	275,000	57,546	13	192,380	211,000
	Manager	95,000	226,159	32,749	21	138,631	130,000
	Quality engineer	73,000	199,799	44,686	10	117,930	100,750
	Software quality engineer	140,000	200,000	27,204	4	161,129	152,258
	Specialist	76,000	135,000	25,205	5	103,600	109,000
	Vice president/executive	206,000	302,132	49,050	3	259,711	271,000

Table 6 includes results for: \underline{x} Full-time employees, $_$ Part-time employees, \underline{x} U.S. employees, $_$ Canadian employees, $_$ International employees
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

TABLE 6 - CONTINUED FROM P. 80

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Seattle, Tacoma and Bremerton (WA)	Director	\$130,000	\$166,000	\$15,139	5	\$150,800	\$158,000
	Manager	71,500	185,000	29,745	16	119,838	115,500
	Quality engineer	70,000	123,000	20,489	7	87,912	80,000
	Specialist	58,000	133,000	29,585	7	107,429	120,000
	Technician	47,000	58,000	4,207	5	51,200	50,000
Other metro area, Pacific region	Director	70,000	182,000	40,884	6	111,270	106,060
	Manager	63,000	159,000	35,601	8	104,625	100,500
	Quality engineer	72,000	108,000	18,330	3	92,000	96,000
	Reliability/safety engineer	109,000	120,000	6,351	3	116,333	120,000
	Software quality engineer	120,000	126,500	3,753	3	122,167	120,000
Mountain Region							
Denver, Boulder and Greeley (CO)	Coordinator	\$55,000	\$69,000	\$7,810	3	\$64,000	\$68,000
	Director	110,000	165,000	20,051	6	138,917	143,750
	Manager	82,830	180,000	25,800	16	120,793	116,500
	Quality engineer	58,000	115,000	16,179	12	73,900	71,000
	Supplier quality engineer/professional	61,500	150,000	45,624	3	112,167	125,000
	Technician	65,000	75,000	5,774	3	71,667	75,000
	Vice president/executive	140,000	220,000	40,927	3	175,000	165,000
Las Vegas (NV)	Manager	71,000	133,000	22,554	5	102,200	102,000
Phoenix and Mesa (AZ)	Analyst	57,096	85,000	11,556	6	68,924	65,000
	Auditor	51,000	92,000	23,116	3	77,667	90,000
	Director	116,000	235,000	38,181	8	156,864	146,457
	Manager	75,000	165,000	29,081	14	107,497	105,500
	Quality engineer	60,000	110,000	16,573	6	85,667	88,000
	Software quality engineer	90,000	111,300	10,722	3	99,933	98,500
Salt Lake City and Ogden (UT)	Director	82,000	195,000	33,875	10	141,800	136,500
	Manager	60,000	167,000	34,298	9	98,072	100,827
	Quality engineer	64,890	125,000	17,017	9	93,666	90,000
Other metro area, Mountain region	Manager	55,000	130,000	27,410	11	96,251	92,000
	Quality engineer	73,000	150,000	32,381	5	94,000	78,000

Table 6 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED FROM P. 81

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
West North Central Region							
Kansas City (MO and KS)	Manager	\$67,000	\$130,000	\$21,555	16	\$93,163	\$88,350
	Supervisor	43,000	93,000	22,142	4	67,750	67,500
Minneapolis and St. Paul (MN)	Analyst	53,000	105,000	19,320	5	74,500	75,000
	Director	102,000	170,078	20,570	8	130,572	126,500
	Inspector	34,000	77,000	18,010	5	51,191	43,340
	Manager	55,000	200,000	30,683	39	110,361	106,000
	Process/manufacturing/project engineer	63,000	134,000	36,669	4	100,575	102,650
	Quality engineer	56,000	140,000	17,041	27	88,395	89,100
	Specialist	63,000	118,000	17,435	12	85,508	84,000
	Statistician	123,040	190,190	34,238	3	152,743	145,000
	Supervisor	56,650	72,000	8,379	3	62,383	58,500
	Supplier quality engineer/professional	76,000	136,000	31,476	3	111,500	122,500
	Technician	51,000	75,000	9,815	4	62,500	62,000
	Vice president/executive	99,200	280,000	91,582	3	198,067	215,000
St. Louis (MO and IL)	Analyst	59,953	69,000	4,644	3	65,084	66,300
	Associate	37,440	56,160	9,830	3	48,533	52,000
	Director	109,000	148,000	17,059	4	123,350	118,200
	Manager	52,000	151,659	25,743	22	101,096	102,000
	Quality engineer	72,000	142,000	26,643	10	102,999	98,000
	Specialist	50,000	105,000	20,772	6	73,320	71,500
	Supervisor	65,000	120,000	29,826	3	85,833	72,500
	Supplier quality engineer/professional	70,012	147,000	33,455	4	98,741	88,975
Vice president/executive	125,000	191,335	28,559	4	161,584	165,000	
Other metro area, West North Central region	Analyst	41,472	62,000	10,436	3	52,824	55,000
	Auditor	46,000	75,000	12,498	7	61,543	60,000
	Coordinator	43,200	105,000	27,996	4	65,153	56,205
	Director	81,000	173,000	28,912	9	125,692	130,000
	Manager	75,000	140,000	17,580	14	101,043	99,000
	Quality engineer	50,000	100,000	17,653	13	75,254	71,000
	Specialist	55,000	78,000	12,393	3	63,833	58,500
	Supplier quality engineer/professional	70,000	130,000	27,195	4	108,750	117,500

Table 6 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees, \bar{x} International employees
All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

TABLE 6 - CONTINUED FROM P. 82

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
West South Central Region							
Austin and San Marcos (TX)	Director	\$104,000	\$140,000	\$16,153	4	\$116,750	\$111,500
	Manager	68,000	105,000	16,998	4	80,750	75,000
	Quality engineer	80,000	122,500	16,596	6	97,083	92,500
Dallas and Fort Worth (TX)	Black Belt	85,000	137,000	19,295	5	106,400	100,000
	Consultant	72,000	148,000	43,039	3	98,333	75,000
	Director	45,000	206,000	52,387	10	131,450	129,500
	Manager	43,680	157,500	26,142	21	101,818	100,000
	Quality engineer	65,000	160,000	28,024	18	99,708	86,500
	Specialist	42,000	85,000	22,502	3	67,333	75,000
	Supervisor	45,000	165,000	52,951	5	91,900	68,500
	Supplier quality engineer/professional	71,000	118,000	19,191	5	102,400	103,000
Houston, Galveston and Brazoria (TX)	Consultant	63,000	200,000	45,176	6	139,417	136,750
	Coordinator	55,000	110,000	25,645	4	92,500	102,500
	Director	79,000	206,000	39,604	9	161,545	172,000
	Manager	67,000	295,000	47,543	23	128,488	121,500
	Quality engineer	71,000	255,680	59,394	8	115,835	90,500
	Specialist	43,000	176,000	71,166	3	94,867	65,600
Memphis (TN, AR and MS)	Vice president/executive	108,000	255,000	62,163	4	167,750	154,000
	Manager	90,000	132,622	16,772	6	122,829	131,175
	Quality engineer	78,000	100,000	11,000	3	89,000	89,000
New Orleans (LA)	Auditor	54,000	74,000	11,269	3	61,000	55,000
	Manager	112,000	120,000	4,041	3	115,667	115,000
	Quality engineer	62,000	200,000	69,000	3	130,948	130,845
Oklahoma City (OK)	Manager	87,000	110,000	13,000	3	95,000	88,000
San Antonio (TX)	Manager	90,000	134,000	19,122	4	111,500	111,000
Other metro area, West South Central region	Director	85,000	155,500	29,551	4	123,022	125,794
	Manager	55,000	151,000	26,213	11	98,136	97,000

Table 6 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees, $_$ International employees
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED FROM P. 83

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
East North Central Region							
Chicago, Gary and Kenosha (IL, IN and WI)	Analyst	\$48,000	\$120,000	\$21,572	7	\$80,749	\$78,282
	Auditor	55,000	78,000	9,524	5	71,800	75,000
	Consultant	90,000	135,000	22,723	3	110,667	107,000
	Director	67,800	215,000	34,275	27	142,120	142,000
	Educator/instructor	80,700	114,000	16,720	3	98,233	100,000
	Inspector	29,000	54,000	9,615	8	43,983	47,000
	Manager	50,000	190,000	30,521	58	102,541	104,500
	Master Black Belt	110,000	134,000	12,342	3	120,333	117,000
	Other	52,600	133,172	31,137	6	89,995	92,500
	Process/manufacturing/project engineer	68,000	180,000	45,113	6	104,000	94,000
	Quality engineer	52,000	147,000	18,581	44	83,957	79,014
	Specialist	49,000	100,000	20,913	6	74,167	68,500
	Supervisor	47,000	98,000	21,934	6	73,500	77,500
	Supplier quality engineer/professional	90,192	130,000	14,096	7	104,482	102,000
	Technician	40,000	72,000	9,425	10	50,617	50,000
Vice president/executive	85,000	305,000	67,853	8	195,825	200,000	
Cincinnati and Hamilton (OH, KY and IN)	Analyst	42,000	83,200	16,733	5	59,190	59,748
	Associate	42,000	74,000	16,669	3	60,700	66,100
	Auditor	51,800	139,000	47,958	3	106,933	130,000
	Director	92,000	127,093	13,666	6	113,682	117,500
	Manager	45,000	160,000	27,823	25	98,057	97,000
	Process/manufacturing/project engineer	64,500	102,500	21,254	3	89,000	100,000
	Quality engineer	39,800	104,000	19,333	17	72,138	72,141
	Specialist	42,000	66,897	10,516	4	55,974	57,500
Cleveland and Akron (OH)	Consultant	90,000	180,000	45,299	3	132,000	126,000
	Coordinator	45,000	63,000	10,116	3	51,333	46,000
	Director	68,000	140,000	32,396	5	111,000	127,000
	Manager	56,000	200,000	33,587	31	95,863	85,000
	Process/manufacturing/project engineer	95,000	129,000	17,474	3	109,667	105,000
	Quality engineer	57,000	115,000	16,559	19	81,401	76,000
	Specialist	51,500	93,000	17,946	4	75,125	78,000
	Supervisor	45,000	76,499	14,024	5	61,981	58,000
Technician	25,000	65,000	16,814	5	54,800	60,000	
Vice president/executive	114,000	155,000	20,664	3	133,000	130,000	

Table 6 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, $_$ Canadian employees, $_$ International employees
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TABLE 6 - CONTINUED FROM P. 84

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Columbus (OH)	Analyst	\$63,000	\$104,000	\$18,230	4	\$77,500	\$71,500
	Auditor	59,000	96,000	19,451	4	78,706	79,912
	Calibration technician	37,086	60,000	12,474	3	45,695	40,000
	Director	87,000	184,000	34,783	6	151,263	165,500
	Manager	71,100	130,000	17,540	15	93,327	90,000
	Process/manufacturing/project engineer	59,900	91,000	14,638	4	70,225	65,000
	Quality engineer	60,000	99,000	11,952	15	79,845	82,000
	Specialist	38,600	60,000	11,500	3	46,867	42,000
	Supplier quality engineer/professional	60,000	102,000	21,008	3	80,667	80,000
Detroit, Ann Arbor and Flint (MI)	Coordinator	45,000	74,000	13,041	4	62,399	65,297
	Director	91,000	239,386	46,273	10	150,339	151,500
	Manager	63,000	210,000	37,455	23	107,144	93,000
	Master Black Belt	136,000	170,000	15,001	4	148,075	143,150
	Process/manufacturing/project engineer	75,000	127,500	22,739	4	100,053	98,855
	Quality engineer	50,000	115,000	22,365	12	87,000	85,000
	Specialist	46,000	121,000	38,188	3	79,333	71,000
	Supplier quality engineer/professional	56,500	120,000	21,576	6	93,970	98,250
	Technician	33,500	63,000	14,785	3	48,833	50,000
	Vice president/executive	95,000	180,000	44,441	3	145,000	160,000
Grand Rapids, Muskegon and Holland (MI)	Manager	60,000	130,000	20,503	17	100,787	98,280
	Process/manufacturing/project engineer	98,000	120,000	12,702	3	105,333	98,000
	Quality engineer	41,000	110,000	17,424	17	76,553	77,000
	Specialist	40,000	68,000	12,203	4	51,250	48,500
	Supervisor	47,000	130,000	47,920	3	74,667	47,000
	Technician	40,000	65,000	8,619	7	52,943	55,000
Indianapolis (IN)	Associate	38,614	56,000	9,317	3	45,371	41,500
	Auditor	61,500	95,000	13,913	5	70,800	66,000
	Calibration technician	51,000	75,000	12,342	3	64,667	68,000
	Director	122,000	172,000	23,042	4	149,750	152,500
	Educator/instructor	80,000	105,000	13,229	3	95,000	100,000
	Manager	52,500	143,000	23,262	29	89,883	92,300
	Process/manufacturing/project engineer	55,000	145,671	40,128	4	88,168	76,000
	Quality engineer	39,000	155,000	33,693	10	90,798	87,000
	Specialist	47,500	60,000	6,714	3	55,167	58,000
	Technician	33,000	62,000	11,094	8	49,725	53,500

Table 6 includes results for: \bar{x} Full-time employees, \bar{x} Part-time employees, \bar{x} U.S. employees, \bar{x} Canadian employees, \bar{x} International employees
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED FROM P. 85

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Milwaukee and Racine (WI)	Analyst	\$70,000	\$75,000	\$2,754	3	\$73,167	\$74,500
	Associate	53,000	60,000	3,673	3	55,857	54,570
	Auditor	50,000	150,000	43,577	4	88,250	76,500
	Coordinator	36,500	90,000	21,851	5	51,292	43,000
	Director	102,000	160,000	21,591	12	130,875	133,000
	Manager	62,000	157,300	21,727	41	94,734	92,000
	Process/manufacturing/project engineer	75,000	111,115	18,647	3	90,372	85,000
	Quality engineer	45,000	98,000	13,051	26	71,649	70,500
	Specialist	40,560	129,600	25,689	10	66,570	62,000
	Supervisor	65,000	90,000	10,597	7	77,900	76,302
	Supplier quality engineer/professional	70,040	120,000	18,821	5	98,922	99,570
	Technician	38,000	77,300	10,000	13	50,365	50,000
	Vice president/executive	170,000	245,330	42,123	3	196,777	175,000
Other metro area, East North Central region	Analyst	45,000	65,000	10,066	3	55,667	57,000
	Auditor	37,000	80,000	13,239	8	55,145	55,500
	Black Belt	75,800	113,000	17,505	4	98,950	103,500
	Calibration technician	48,880	70,000	12,194	3	62,960	70,000
	Coordinator	44,300	58,600	4,428	7	50,986	50,000
	Director	90,000	280,000	84,869	4	160,000	135,000
	Inspector	21,200	60,000	14,340	5	42,640	42,000
	Manager	47,000	198,000	29,789	48	97,267	91,000
	Process/manufacturing/project engineer	60,000	110,000	18,896	6	72,333	66,500
	Quality engineer	45,000	115,000	18,087	29	75,530	76,000
	Specialist	32,000	80,182	14,707	10	60,484	62,148
	Supervisor	63,000	94,000	15,801	4	77,500	76,500
	Supplier quality engineer/professional	68,700	145,000	24,430	8	94,963	90,000
Technician	43,500	62,512	5,613	10	53,261	53,300	
East South Central Region							
Louisville (KY and IN)	Director	\$117,000	\$135,000	\$7,891	4	\$124,563	\$123,125
	Manager	41,600	138,410	29,043	14	84,858	86,000
	Quality engineer	70,000	82,000	6,007	3	76,167	76,500
	Technician	52,000	100,000	25,325	3	71,333	62,000
Nashville (TN)	Coordinator	52,000	57,000	2,517	3	54,667	55,000
	Director	90,000	138,000	21,464	5	115,200	115,000
	Manager	74,898	140,000	20,072	13	104,078	103,000
	Quality engineer	50,752	93,000	14,485	8	75,269	75,000
	Technician	40,000	72,000	12,400	6	50,833	47,500

Table 6 includes results for: χ Full-time employees, $_$ Part-time employees, χ U.S. employees, $_$ Canadian employees, $_$ International employees
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TABLE 6 - CONTINUED FROM P. 86

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Other metro area, East South Central region	Coordinator	\$35,048	\$45,000	\$5,111	3	\$39,349	\$38,000
	Director	78,000	160,000	32,755	7	122,782	125,000
	Inspector	45,000	62,700	7,436	5	53,800	51,000
	Manager	57,000	165,150	28,577	16	103,671	99,500
	Process/manufacturing/project engineer	50,000	140,000	45,938	3	100,333	111,000
	Quality engineer	62,000	116,150	15,959	13	81,143	75,000
	Specialist	48,000	75,000	15,588	3	57,000	48,000
	Supervisor	75,000	80,500	2,784	3	77,500	77,000
	Technician	24,000	68,111	18,274	5	42,022	46,000
South Atlantic Region							
Atlanta (GA)	Analyst	\$64,000	\$110,000	\$15,092	7	\$83,375	\$83,000
	Auditor	48,000	115,000	26,394	5	80,480	82,000
	Consultant	80,000	144,000	30,934	4	104,750	97,500
	Director	109,000	182,500	24,943	15	144,390	150,000
	Green Belt	70,000	150,000	42,106	4	108,750	107,500
	Manager	50,000	220,000	29,993	34	101,305	98,173
	Quality engineer	57,000	120,000	18,364	11	83,364	78,000
	Specialist	59,000	120,000	25,290	7	86,286	82,000
	Supervisor	68,000	120,000	30,022	3	85,333	68,000
	Supplier quality engineer/professional	55,000	130,000	26,950	5	95,079	99,395
	Technician	42,000	68,500	9,825	9	49,876	45,000
	Vice president/executive	134,900	330,000	74,971	6	201,983	177,500
Charlotte, Gastonia and Rock Hill (NC)	Analyst	55,000	76,000	10,970	3	63,667	60,000
	Director	80,000	187,000	44,851	4	141,104	148,708
	Manager	60,000	130,602	23,031	19	95,242	94,000
	Process/manufacturing/project engineer	85,000	110,000	9,629	5	94,642	92,000
	Quality engineer	50,000	98,580	13,495	11	79,089	76,500
	Specialist	50,000	92,000	15,524	6	65,643	59,930
Greensboro, Winston, Salem and High Point (NC)	Supplier quality engineer/professional	65,000	108,000	17,729	5	96,474	102,689
	Analyst	57,000	96,000	20,108	3	79,333	85,000
	Manager	88,000	139,000	16,865	11	106,654	102,000
	Quality engineer	68,000	99,000	10,144	7	87,334	86,000
Jacksonville (FL)	Specialist	40,000	79,000	16,234	5	63,285	67,424
	Analyst	72,000	80,000	4,041	3	75,667	75,000
	Director	95,000	145,000	21,654	4	121,750	123,500
Miami and Ft. Lauderdale (FL)	Manager	55,000	108,000	18,207	9	90,667	96,000
	Quality engineer	59,000	130,000	27,896	7	92,100	84,000
	Vice president/executive	113,000	180,000	33,710	3	144,333	140,000

Table 6 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
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SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED FROM P. 87

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Norfolk, Virginia Beach and Newport News (VA and NC)	Auditor	\$65,000	\$157,000	\$51,472	3	\$97,667	\$71,000
	Manager	75,000	145,000	24,951	8	109,382	117,279
Orlando (FL)	Analyst	42,000	100,000	29,006	3	71,333	72,000
	Black Belt	88,000	123,600	18,495	3	108,700	114,500
	Director	127,000	195,000	25,577	6	151,167	145,000
	Manager	60,000	125,000	21,375	17	99,000	105,000
	Quality engineer	63,000	90,500	8,874	7	77,241	79,836
	Software quality engineer	97,000	120,000	11,533	3	109,000	110,000
Raleigh, Durham and Chapel Hill (NC)	Analyst	65,000	114,000	23,754	4	86,250	83,000
	Auditor	70,000	110,000	17,862	6	88,667	85,500
	Manager	46,000	158,500	29,134	33	101,576	107,500
	Master Black Belt	130,000	200,000	39,051	3	155,000	135,000
	Quality engineer	53,500	97,500	14,826	6	76,383	80,000
	Specialist	40,000	107,000	21,751	9	82,700	90,000
San Juan, Caguas and Arecibo (PR)	Supervisor	57,000	91,000	19,630	3	79,667	91,000
	Specialist	33,000	94,000	33,536	4	63,000	62,500
Tampa, St. Petersburg and Clearwater (FL)	Auditor	50,000	115,000	34,210	3	88,667	101,000
	Director	63,000	180,000	37,029	8	120,375	122,500
	Manager	42,000	140,240	29,737	15	88,883	90,000
	Quality engineer	65,000	115,000	22,015	4	91,000	92,000
	Specialist	56,000	80,000	12,220	3	69,333	72,000
Washington D.C. and Baltimore (MD, VA and WV)	Analyst	70,000	159,900	31,935	11	113,863	109,000
	Associate	71,000	88,000	8,888	3	78,000	75,000
	Auditor	80,000	158,000	31,831	5	115,200	120,000
	Black Belt	100,000	250,000	81,222	3	157,000	121,000
	Consultant	90,000	162,000	35,180	4	124,938	123,875
	Coordinator	63,000	110,000	26,992	3	78,833	63,500
	Director	109,000	400,000	66,704	20	166,329	146,000
	Inspector	62,000	95,000	14,059	4	75,500	72,500
	Manager	53,000	215,000	38,137	50	121,067	124,000
	Other	60,000	110,000	21,546	4	82,250	79,500
	Quality engineer	70,000	156,000	22,365	17	94,988	91,000
	Specialist	47,000	112,000	21,865	11	86,091	83,000
	Supervisor	81,300	143,000	31,855	3	107,567	98,400
	Supplier quality engineer/professional	81,000	180,000	55,026	3	116,625	88,874
	Vice president/executive	146,000	189,000	21,453	4	166,250	165,000

Table 6 includes results for: \bar{x} Full-time employees, $_$ Part-time employees, \bar{x} U.S. employees, $_$ Canadian employees, $_$ International employees
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TABLE 6 - CONTINUED FROM P. 88

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
West Palm Beach and Boca Raton (FL)	Manager	\$63,000	\$156,000	\$46,573	3	\$108,000	\$105,000
	Analyst	39,913	68,000	13,120	4	59,478	65,000
Other metro area, South Atlantic region	Consultant	77,000	127,500	22,570	4	94,369	86,488
	Coordinator	23,000	113,000	35,394	5	70,200	68,000
	Director	117,000	168,300	17,954	7	148,600	150,000
	Educator/instructor	56,000	185,000	55,931	4	104,750	89,000
	Inspector	35,360	49,088	6,868	3	42,363	42,640
	Manager	50,000	148,500	27,157	32	92,931	89,000
	Quality engineer	51,185	119,670	18,366	25	85,595	83,000
	Specialist	39,520	128,000	29,683	13	79,440	69,000
	Supplier quality engineer/professional	49,000	120,000	21,893	7	82,686	81,800
	Technician	32,000	55,000	9,352	6	46,357	49,000
	Director	75,000	165,838	29,262	8	120,667	112,500
	Manager	42,000	160,000	29,138	30	98,491	101,500
	Process/manufacturing/project engineer	65,000	108,000	21,520	3	87,033	88,100
	Quality engineer	48,000	114,000	19,465	18	79,471	76,800
	Specialist	53,000	92,000	20,493	3	68,861	61,584
	Supplier quality engineer/professional	57,600	96,410	12,230	9	79,033	77,409
	Technician	41,222	45,000	1,922	3	43,315	43,722
Vice president/executive	150,000	233,000	37,497	5	189,040	173,000	
Middle Atlantic Region							
Buffalo and Niagara Falls (NY)	Manager	\$70,000	\$138,666	\$22,811	7	\$106,481	\$103,000
	Quality engineer	40,000	118,500	23,886	8	72,438	70,000
New York, Northern New Jersey and Long Island (NY, NJ, CT and PA)	Analyst	76,000	110,000	17,474	3	95,333	100,000
	Associate	46,000	104,000	31,902	3	67,325	51,975
	Auditor	72,000	117,700	16,820	5	95,680	100,000
	Consultant	92,000	165,000	41,861	3	116,667	93,000
	Coordinator	45,000	131,170	41,480	5	83,671	62,000
	Director	89,500	310,000	57,780	16	171,625	156,000
	Inspector	35,000	80,000	16,376	6	53,833	54,000
	Manager	60,000	165,000	27,429	45	110,888	108,000
	Process/manufacturing/project engineer	90,000	103,000	7,506	3	98,667	103,000
	Quality engineer	65,000	130,000	18,676	19	100,263	105,000
	Specialist	59,000	127,000	22,135	15	97,719	95,000
	Supervisor	44,000	140,000	31,968	7	83,429	83,000
	Supplier quality engineer/professional	76,000	130,000	22,996	5	111,480	119,900
	Technician	36,000	63,544	12,278	4	45,636	41,500

Table 6 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees
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SECTION 8: SALARY BY GEOGRAPHIC LOCATION—U.S. AND CANADA

TABLE 6 - CONTINUED FROM P. 89

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
Philadelphia, Wilmington and Atlantic City (PA, NJ, DE and MD)	Analyst	\$57,000	\$125,000	\$29,941	4	\$97,232	\$103,465
	Associate	53,000	90,000	18,610	3	70,333	68,000
	Auditor	46,000	95,000	15,921	7	77,200	80,000
	Director	80,000	220,000	30,224	24	126,120	126,500
	Manager	57,200	181,000	31,283	41	103,423	105,000
	Other	40,000	120,000	36,313	4	77,055	74,110
	Quality engineer	70,000	155,000	24,575	12	100,817	99,000
	Software quality engineer	67,000	110,000	21,579	3	87,433	85,300
	Specialist	33,600	103,000	21,410	10	82,321	88,000
	Supervisor	63,000	102,000	16,031	5	78,000	75,000
	Supplier quality engineer/professional	67,000	135,000	28,963	4	93,988	86,975
	Technician	45,000	70,000	10,109	5	52,200	48,000
	Vice president/executive	120,000	250,000	65,574	3	190,000	200,000
Pittsburgh (PA)	Director	117,000	173,000	27,354	4	139,250	133,500
	Manager	71,500	125,000	17,932	11	91,641	88,741
	Process/manufacturing/project engineer	58,000	200,000	65,869	4	102,000	75,000
	Quality engineer	53,689	249,000	49,702	13	91,594	81,400
	Specialist	37,000	69,000	14,638	4	57,550	62,100
	Supplier quality engineer/professional	80,000	100,000	10,000	3	90,000	90,000
Rochester (NY)	Technician	33,904	70,800	17,156	4	49,176	46,000
	Manager	62,000	195,000	35,626	11	106,118	102,795
	Quality engineer	58,000	118,000	19,411	8	72,800	69,700
	Specialist	62,000	77,000	6,377	4	71,000	72,500
Other metro area, Middle Atlantic region	Technician	32,200	60,000	12,372	4	46,550	47,000
	Director	45,000	175,000	54,431	6	120,622	132,000
	Inspector	50,000	57,387	4,265	3	52,462	50,000
	Manager	44,000	135,000	26,164	17	89,059	93,000
	Quality engineer	49,000	113,000	19,333	12	75,263	72,313
	Software quality engineer	60,000	108,000	24,004	3	83,733	83,200
	Specialist	45,000	82,000	15,777	4	61,750	60,000
	Supervisor	50,000	58,000	4,041	3	54,333	55,000
Technician	32,000	70,000	13,903	5	50,400	50,000	

Table 6 includes results for: x Full-time employees, _ Part-time employees, x U.S. employees, _ Canadian employees, _ International employees
All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

TABLE 6 - CONTINUED FROM P. 90

Salary by U.S. metropolitan area and job title

		Minimum	Maximum	Standard deviation	Count	Mean	Median
New England Region							
Boston, Worcester and Lawrence (MA, NH, ME and CT)	Associate	\$41,891	\$75,000	\$13,187	5	\$58,115	\$55,182
	Auditor	62,000	123,000	19,431	10	87,000	88,000
	Consultant	90,000	125,000	15,478	4	111,250	115,000
	Director	105,000	255,000	41,115	19	171,941	173,000
	Inspector	50,000	60,000	4,435	4	54,500	54,000
	Manager	48,000	252,000	37,861	57	123,183	128,000
	Other	38,126	123,000	47,889	3	93,375	119,000
	Process/manufacturing/project engineer	87,000	117,875	12,664	4	101,844	101,250
	Quality engineer	55,000	190,000	27,909	42	93,658	87,626
	Reliability/safety engineer	68,900	130,000	31,992	3	93,967	83,000
	Specialist	39,140	155,000	33,539	10	73,648	66,500
	Supervisor	60,000	147,160	37,325	4	94,790	86,000
	Supplier quality engineer/professional	68,000	121,000	17,267	10	91,507	92,584
	Technician	32,000	83,000	18,770	5	53,400	52,000
	Vice president/executive	96,000	450,000	165,460	4	228,500	184,000
Hartford (CT)	Director	135,000	138,000	1,607	3	136,167	135,500
	Manager	71,320	192,927	32,592	14	112,226	109,050
	Quality engineer	61,000	110,000	17,754	10	90,157	96,750
Providence, Fall River and Warwick (RI and MA)	Manager	65,000	130,000	21,270	8	92,138	96,750
Other metro area, New England region	Manager	57,000	115,000	25,782	4	85,088	84,175

Table 6 includes results for: *x* Full-time employees, *_* Part-time employees, *x* U.S. employees, *_* Canadian employees, *_* International employees
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

「MONEY TALKS」

In what way did your employer change its service or product offerings to respond to marketplace demands?

We had to ramp up purchases of latex gloves, face masks, hand sanitizer, alcohol and bleach to try to keep up with demand.

Graham Thornton
 Lean program specialist | MSC Industrial Supply Co. | Elkhart, IN

TABLE 7

Salaries by Canadian metropolitan areas and job title

		Minimum	Maximum	Standard Deviation	Count	Mean	Median
Calgary (AB)	Manager	\$62,000	\$160,000	\$46,032	4	\$96,250	\$81,500
Montreal (QC)	Manager	75,000	110,000	14,405	5	88,000	90,000
Ottawa-Gatineau (ON and QC)	Manager	90,000	117,000	13,503	3	103,667	104,000
Toronto (ON)	Coordinator	50,000	66,000	7,000	4	58,500	59,000
	Director	103,000	176,000	31,962	4	131,250	123,000
	Inspector	47,000	104,000	32,078	3	67,000	50,000
	Manager	40,000	126,000	24,461	21	84,863	87,000
	Process/manufacturing/project engineer	42,000	100,000	25,643	4	65,750	60,500
Vancouver (BC)	Quality engineer	44,321	94,637	16,814	9	70,846	65,000
	Manager	50,000	160,000	37,919	8	107,358	103,182
Other metropolitan areas, Canada	Analyst	63,000	94,854	14,888	5	79,071	80,000
	Manager	68,000	125,500	16,190	19	95,605	96,000
	Specialist	56,299	95,000	14,787	7	76,631	75,718
	Supervisor	51,174	92,000	17,135	4	74,544	77,500
	Technician	42,000	90,000	19,396	5	55,800	50,000

Table 7 includes results for: *x* Full-time employees, *_* Part-time employees, *_* U.S. employees, *x* Canadian employees, *_* International employees
Salaries are noted in Canadian dollars. All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

「MONEY TALKS」

In what way has your workplace changed permanently due to COVID-19?



Cultural attitudes toward teleworking have shifted. Previously, my workplace was conservative on this issue. Now, the city of Regina is championing it. The city of Regina is seizing the opportunity to improve working conditions for its staff. For instance, my daughters and I are studying more poetry with the time saved from commuting. Professionally, I have been entrusted with writing more complex documents.

David E. R. J. Stilborn

Project management analyst | Water, Waste & Environment Department
City of Regina, Saskatchewan

GENDER

There's a pay gap between men and women in many professions and industries, and the quality field is no exception. Figure 1 (p. 94) shows a difference in earnings for men over women in the United States. The gap is greatest among professionals aged 46 to 55, a group in which men, with an average salary of \$117,078, are earning \$12,275 more than women in the same age group.

The earnings advantage is reversed in the 66 and older category. Women over 65 make \$2,642 more than men, but this is the only age bracket in which women outearn men. In Canada (Figure 2, p. 94), the numbers are more difficult to interpret because of a smaller number of respondents.

Men also outnumber women in the

quality field. According to Table 1 (p. 95), 63.6% of this year's survey U.S. respondents were men, and they earned an average of \$10,520 more annually than their female peers. Table 2 (p. 95) provides the same breakdown for Canadian respondents.

Table 3 (U.S. respondents, p. 96-97) and Table 4 (Canadian respondents, p. 97) break down salaries by gender, age and job title. The superscripted numbers in each box denote how many respondents were tallied for the respective category. Notice the large difference in the number of respondents from each country. This problem of the small sample size in Canada makes it difficult to draw meaningful inferences about age and gender there.

GAP NARROWS

In the United States, 60.6% of this year's survey respondents were men, and they earned an average of \$10,520 more annually than their female peers.

FIGURE 1

Salary by age and gender for U.S. respondents



Figure 1 includes results for:
 x Full-time employees,
 _ Part-time employees,
 x U.S. employees,
 _ Canadian employees,
 _ International employees

FIGURE 1

Salary by age and gender for U.S. respondents



Figure 1 includes results for:
 x Full-time employees,
 _ Part-time employees,
 x U.S. employees,
 _ Canadian employees,
 _ International employees

FIGURE 2

Salary by age and gender for Canadian respondents

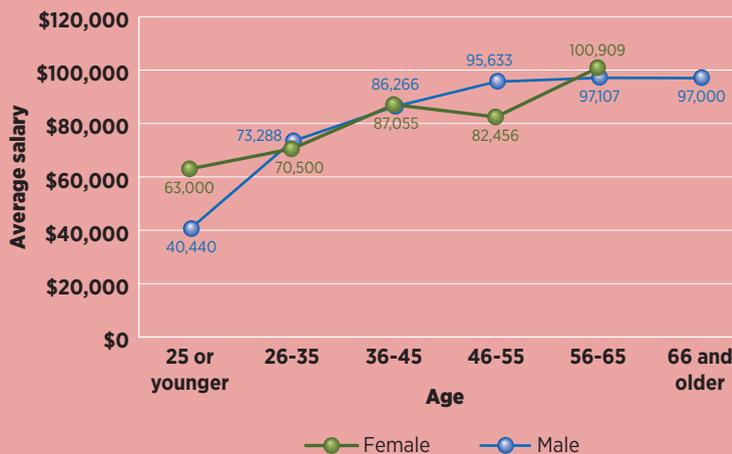


Figure 2 includes results for:
 x Full-time employees,
 _ Part-time employees,
 _ U.S. employees,
 x Canadian employees,
 _ International employees
 Salaries are noted in Canadian dollars.

TABLE 1

Salary and representation by gender and age—U.S. respondents

	25 or younger	26-35	36-45	46-55	56-65	66 and older	All ages
Average salary, women	\$59,401	\$79,579	\$94,402	\$104,803	\$107,179	\$119,788	\$97,153
Average salary, men	61,072	81,474	101,156	117,078	117,604	117,146	107,673
Average salary difference for men	+1,671	+1,895	+6,755	+12,275	+10,424	-2,642	+10,520
Men's average salary as a percentage of women's average salary	102.8%	102.4%	107.2%	111.7%	109.7%	97.8%	110.8%
Number of women	16	258	316	360	259	29	1,238
Number of men	28	286	405	518	567	98	1,902
Percentage men	63.6%	52.6%	56.2%	59%	68.6%	77.2%	60.6%

Table 1 includes results for: \times Full-time employees, $_$ Part-time employees, \times U.S. employees, $_$ Canadian employees, $_$ International employees

In the United States, men aged 46 to 55, with an average salary of \$117,196, are earning \$12,275 more than women in the same age group.

TABLE 2

Salary and representation by gender and age—Canadian respondents

	25 or younger	26-35	36-45	46-55	56-65	All ages
Average salary, women	n = 1	\$70,500	\$87,055	\$82,456	\$100,909	\$82,857
Average salary, men	\$40,440	73,288	86,266	95,633	97,107	85,787
Average salary difference for men	n/a	+2,788	-789	+13,177	-3,802	+2,930
Men's average salary as a percentage of women's average salary	n/a	104%	99.1%	116%	96.2%	103.5%
Number of women	1	12	24	12	4	53
Number of men	3	22	23	28	9	87
Percentage men	75%	64.7%	48.9%	70%	69.2%	62.1%

Table 2 includes results for: \times Full-time employees, $_$ Part-time employees, $_$ U.S. employees, \times Canadian employees, $_$ International employees

Salaries are noted in Canadian dollars. n = 1 indicates that data in a cell from a single respondent was suppressed to shield personally identifiable information.

SECTION 9: SALARY BY GENDER AND AGE

TABLE 3 - CONTINUED THROUGH P. 97

Salary by gender, age and job title for U.S. respondents

		25 or younger	26-35	36-45	46-55	56-65	66 and older	All ages
All respondents	Female	\$59,401 ¹⁶	\$79,579 ²⁵⁸	\$94,402 ³¹⁶	\$104,803 ³⁶⁰	\$107,179 ²⁵⁹	\$119,788 ²⁹	\$97,153 ^{1,238}
	Male	61,072 ²⁸	81,474 ²⁸⁶	101,156 ⁴⁰⁵	117,078 ⁵¹⁸	117,604 ⁵⁶⁷	117,146 ⁹⁸	107,673 ^{1,902}
Analyst	Female	—	66,140 ¹³	87,381 ¹³	65,729 ⁷	88,833 ⁶	92,332 ⁴	78,098 ⁴³
	Male	48,000 ²	73,767 ¹²	58,803 ¹⁰	89,880 ¹¹	70,375 ⁸	115,010 ²	74,821 ⁴⁵
Associate	Female	n = 1	45,417 ⁷	39,110 ⁴	51,883 ³	57,375 ⁴	n = 1	50,289 ²⁰
	Male	—	n = 1	66,700 ⁵	—	86,000 ²	n = 1	67,667 ⁹
Auditor	Female	—	67,785 ¹⁵	75,907 ²¹	89,870 ²²	89,706 ¹⁵	120,667 ³	82,836 ⁷⁶
	Male	—	61,748 ⁸	89,571 ⁶	104,958 ⁸	108,355 ²⁵	—	97,445 ⁴⁷
Black Belt	Female	n = 1	100,333 ⁶	n = 1	103,842 ⁵	89,080 ⁵	—	96,682 ¹⁹
	Male	n = 1	101,550 ⁴	106,788 ⁴	100,000 ³	97,000 ⁶	—	97,631 ¹⁸
Calibration technician	Female	—	—	n = 1	41,733 ⁴	—	—	39,522 ⁵
	Male	—	60,500 ²	58,832 ⁵	76,880 ⁵	n = 1	—	68,812 ¹³
Champion	Female	—	n = 1	—	127,500 ³	n = 1	—	107,700 ⁵
	Male	—	—	147,000 ²	112,000 ²	—	—	129,500 ⁴
Consultant	Female	—	90,000 ³	138,414 ⁸	112,500 ⁴	162,743 ⁷	—	134,842 ²²
	Male	—	98,100 ⁵	105,699 ³	124,143 ⁷	137,600 ¹⁰	132,500 ⁶	124,116 ³¹
Coordinator	Female	—	51,938 ⁸	60,475 ¹⁹	69,188 ¹²	51,071 ⁷	n = 1	61,431 ⁴⁷
	Male	—	50,615 ⁶	64,235 ⁷	92,667 ³	92,500 ⁶	92,500 ²	73,806 ²⁴
Director	Female	—	109,778 ⁹	133,873 ³²	147,826 ⁴²	138,243 ²³	133,520 ⁶	138,048 ¹¹²
	Male	—	113,591 ¹¹	141,924 ³⁹	148,340 ⁸⁶	152,849 ⁸⁸	139,156 ¹⁸	146,128 ²²²
Educator/instructor	Female	—	57,500 ²	n = 1	104,750 ²	180,000 ²	—	116,071 ⁷
	Male	—	64,000 ²	—	144,150 ⁴	118,250 ⁸	109,128 ³	116,352 ¹⁷
Green Belt	Female	—	n = 1	81,667 ³	100,490 ²	n = 1	—	83,283 ⁷
	Male	n = 1	67,833 ³	73,200 ³	62,670 ²	81,300 ²	—	71,276 ¹¹
Inspector	Female	n = 1	39,150 ⁴	39,500 ²	47,821 ⁵	59,252 ⁵	—	49,468 ¹⁷
	Male	52,000 ²	60,458 ⁵	54,600 ⁷	68,167 ⁹	55,525 ⁹	n = 1	59,991 ³³
Manager	Female	n = 1	93,762 ⁴⁸	99,230 ⁹⁵	104,323 ¹²⁴	106,897 ⁸⁹	107,700 ⁴	102,031 ³⁶¹
	Male	60,767 ³	94,246 ⁵⁶	108,588 ¹³⁵	117,622 ¹⁷⁸	112,600 ¹⁸³	111,319 ²⁹	111,113 ⁵⁸⁴
Master Black Belt	Female	—	—	n = 1	128,471 ⁴	113,000 ²	n = 1	122,736 ⁸
	Male	—	141,500 ²	131,125 ⁴	131,167 ¹²	148,846 ¹⁰	117,500 ²	136,832 ³⁰
Other	Female	n = 1	63,250 ⁴	n = 1	79,042 ¹²	79,800 ⁵	n = 1	75,604 ²⁴
	Male	n = 1	86,333 ³	101,804 ³	94,025 ⁴	107,480 ⁵	—	95,845 ¹⁶
Process/manufacturing/project engineer	Female	—	83,737 ⁹	116,667 ³	131,000 ²	n = 1	n = 1	98,664 ¹⁶
	Male	68,250 ²	81,675 ¹⁶	104,346 ¹³	103,317 ¹¹	103,749 ¹³	78,333 ³	95,173 ⁵⁸
Quality engineer	Female	70,079 ⁷	83,657 ⁷⁰	89,383 ⁴⁰	88,387 ³⁰	95,027 ²⁴	110,669 ²	87,141 ¹⁷³
	Male	71,013 ¹⁰	81,003 ⁸⁷	86,642 ⁷²	92,941 ⁷⁴	97,611 ¹⁰⁴	116,956 ¹⁵	90,550 ³⁶²
Reliability/safety engineer	Female	—	n = 1	n = 1	n = 1	145,500 ²	—	132,712 ⁵
	Male	—	82,925 ⁴	112,200 ⁵	134,975 ⁸	132,648 ⁸	—	121,347 ²⁵
Software quality engineer	Female	—	89,900 ³	—	129,879 ⁴	101,393 ⁵	—	108,015 ¹²
	Male	—	126,000 ²	109,272 ⁶	117,920 ⁴	120,525 ⁶	n = 1	116,514 ¹⁹
Specialist	Female	n = 1	75,590 ³⁰	76,948 ³¹	82,368 ²⁴	91,813 ²¹	100,000 ²	80,682 ¹⁰⁹
	Male	—	69,726 ¹⁸	73,631 ¹⁶	89,017 ¹²	123,920 ¹⁵	73,000 ³	87,175 ⁶⁴
Statistician	Female	—	n = 1	n = 1	136,962 ²	180,963 ³	n = 1	160,977 ⁸
	Male	—	n = 1	n = 1	n = 1	126,667 ³	—	137,673 ⁶

Table 3 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees

n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.

All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.

Superscript numbers denote number of respondents.

TABLE 3 - CONTINUED FROM P. 96

Salary by gender, age and job title for U.S. respondents

		25 or younger	26-35	36-45	46-55	56-65	66 and older	All ages
Supervisor	Female	—	\$75,971 ⁷	\$80,131 ¹³	\$79,206 ⁷	\$100,088 ²	n = 1	\$81,637 ³⁰
	Male	n = 1	66,989 ¹⁷	91,409 ¹¹	82,937 ¹⁷	85,615 ⁸	n = 1	79,376 ⁵⁵
Supplier quality engineer/professional	Female	n = 1	73,588 ⁸	100,300 ¹⁰	104,468 ¹²	93,000 ⁵	—	93,676 ³⁶
	Male	\$63,750 ²	85,405 ¹⁰	100,806 ¹⁷	110,114 ²²	116,641 ²⁶	\$115,075 ³	106,195 ⁸⁰
Technician	Female	42,500 ²	50,405 ⁸	47,186 ⁷	44,837 ⁹	49,319 ¹²	—	47,734 ³⁸
	Male	36,824 ³	49,890 ¹¹	54,704 ¹⁷	52,699 ¹²	58,560 ¹²	67,333 ³	53,902 ⁵⁸
Vice president/executive	Female	—	—	161,500 ⁸	198,024 ¹⁷	218,500 ¹²	n = 1	198,168 ³⁸
	Male	—	—	158,371 ¹⁴	199,196 ²³	208,693 ²⁹	183,200 ⁵	193,899 ⁷¹

Table 3 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{x} U.S. employees, \bar{p} Canadian employees, \bar{p} International employees
 n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.
 Superscript numbers denote number of respondents.

TABLE 4

Salary by gender, age and job title for Canadian respondents

		25 or younger	26-35	36-45	46-55	56-65	66 and older	All ages
All respondents	Female	n = 1	\$70,500 ¹²	\$87,055 ²⁴	\$82,456 ¹²	\$100,909 ⁴	—	\$82,857 ⁵³
	Male	\$40,440 ³	73,288 ²²	86,266 ²³	95,633 ²⁸	97,107 ⁹	\$97,000 ²	85,787 ⁸⁷
Analyst	Female	n = 1	n = 1	83,500 ²	—	—	—	74,750 ⁴
	Male	n = 1	n = 1	n = 1	n = 1	—	—	77,539 ⁴
Associate	Female	—	—	75,830 ²	—	—	—	75,830 ²
	Male	—	n = 1	—	n = 1	—	—	56,410 ²
Consultant	Male	—	n = 1	n = 1	n = 1	—	—	93,458 ³
Coordinator	Female	—	—	63,116 ⁴	—	—	—	63,116 ⁴
Director	Female	—	n = 1	n = 1	—	105,000 ²	—	112,500 ⁴
	Male	—	—	153,500 ²	136,667 ³	—	n = 1	133,500 ⁶
Inspector	Male	—	48,500 ²	—	—	—	—	48,500 ²
Manager	Female	—	66,000 ²	87,381 ¹¹	105,500 ⁴	n = 1	—	89,677 ¹⁸
	Male	—	92,813 ⁸	80,930 ¹⁰	99,633 ¹⁵	121,600 ⁵	n = 1	96,521 ³⁹
Process/manufacturing/project engineer	Female	—	63,000 ²	—	—	—	—	63,000 ²
	Male	n = 1	n = 1	n = 1	—	—	—	70,667 ³
Quality engineer	Female	—	—	—	n = 1	n = 1	—	92,319 ²
	Male	n = 1	62,500 ²	69,544 ²	80,000 ³	n = 1	—	68,108 ⁹
Specialist	Female	—	62,500 ²	n = 1	66,433 ³	—	—	74,383 ⁵
	Male	—	71,113 ²	n = 1	85,359 ²	n = 1	—	81,557 ⁶
Supervisor	Female	—	n = 1	n = 1	n = 1	—	—	72,725 ³
Technician	Female	—	n = 1	—	n = 1	—	—	51,000 ²
	Male	—	60,000 ²	69,000 ²	50,000 ²	n = 1	—	57,143 ⁷

Table 4 includes results for: \bar{x} Full-time employees, \bar{p} Part-time employees, \bar{p} U.S. employees, \bar{x} Canadian employees, \bar{p} International employees
 n = 1 indicates that data in a cell are from a single respondent and were suppressed to shield personally identifiable information.
 All rows for which no cell had data from more than one respondent have been suppressed to shield personally identifiable information.
 Salaries are noted in Canadian dollars. Superscript numbers denote number of respondents.

Appendix A:



STATISTICAL TERMS

Here are brief descriptions of the statistical terms used in the survey report:

- + **Minimum salary:** the lowest salary reported in that particular group.
- + **Maximum salary:** the highest salary reported in that particular group.
- + **Standard deviation:** a measure of dispersion around the mean. In a normal distribution, 68% of cases fall

within one standard deviation of the mean and 95% of cases fall within two standard deviations. For example, if the mean salary is \$70,000 with a standard deviation of \$15,000, 95% of the cases are between \$40,000 and \$100,000 in a normal distribution.

- + **Count:** the number of respondents in

that particular group.

- + **Mean salary:** the average salary for that particular group.
- + **Median salary:** the 50th percentile—that is, the salary at which half the cases fall above and half fall below. If there is an even number of cases, the median is the average of the two middle cases.

Appendix B:



JOB TITLES

In each year's salary survey, *Quality Progress* asks respondents to choose from a list of job titles the one that most nearly matches their own. In all years,

there are some whose titles do not closely match any on the list. These respondents choose "Other" and are asked to fill in a title. In some cases, the titles given by respondents who chose "Other" in fact correspond to job titles that could have been found on the pick-list, and in these cases, our editors correct the record.

Here are the suggested definitions for the job titles used in the 2020 survey.

Some of the definitions were compiled by an HR expert and have been revised throughout the years. Based on respondent feedback, they will continue to be analyzed and revised periodically. All definitions are intended only as a guide:

- + **Analyst:** Initiates and coordinates quality-related data from production, service or process improvement activities and reports these data using statistical techniques.
- + **Associate:** Involved in quality improvement projects but not necessarily full time. Does not necessarily have primary

responsibility for traditional quality management, assurance or control activities.

- + **Auditor:** Performs and reports on internal or external quality system audits.
- + **Black Belt:** Six Sigma or quality expert. Often a full-time team leader, responsible for implementing process improvement projects within the business to drive up customer satisfaction levels and business productivity.
- + **Calibration technician:** Tests, calibrates, maintains and repairs electrical, mechanical, electromechanical,

analytical and electronic measuring, recording and indicating instruments and equipment for conformance to established standards.

- + **Champion:** Business leader or senior manager who ensures resources are available for quality training and projects and is involved in project tollgate reviews. Often an executive who supports and addresses Six Sigma organizational issues.
- + **Consultant:** Provides advice, facilitation and training on the development, administration and technical aspects of an organization's quality improvement efforts at any or all levels. Has expertise in some or all aspects of the quality field. At the forefront of changes in his or her field. This person can be from outside the organization or can be an employee of the organization.
- + **Coordinator:** Collects, organizes, monitors and distributes information related to quality and process improvement functions, possibly including but not limited to compliance to and documentation of quality management standards, such as ISO 9001. Typically generates reports using computer skills and distributes those reports to various users in the organization or among customers and suppliers.
- + **Director:** Oversees all aspects of the organization's quality or business improvement efforts, such as developing and administering the program, training and coaching employees, and facilitating change throughout the organization. Responsible for establishing strategic plans, policies and procedures at all levels so quality improvement efforts will meet or exceed internal and external customers' needs and expectations.
- + **Educator/instructor:** Instructs or trains others on quality-related topics, tools and techniques. This person may be an employee of an organization or teach in a university or college setting.
- + **Green Belt:** Operates in support of or under the supervision of a Six Sigma Black Belt, analyzes quality problems and is involved in quality improvement projects. Has at least three years of work experience.
- + **Inspector:** Inspects, audits and reports on materials, processes and products using variable or attribute measuring instruments and techniques to ensure conformance with the company's quality standards.
- + **Manager:** Ensures the administration of the organization's quality, process or business improvement efforts within a defined segment of the organization. Might be responsible for dealing with customers and suppliers on quality or performance issues. Typically has people reporting directly to him or her.
- + **Master Black Belt:** Six Sigma or quality expert responsible for strategic implementations within the business. Qualified to teach other Six Sigma facilitators the methods, tools and applications in all functions and levels of the organization. A resource for using statistical methods to improve processes.
- + **Process/manufacturing/project engineer:** Performs engineering work to evaluate manufacturing processes or performance improvement projects for optimization. Duties also may include the development of processes to ensure that quality, cost and efficiency requirements are met.
- + **Quality engineer:** Designs, installs and evaluates quality assurance process sampling systems, procedures and statistical techniques. Designs or specifies inspection and testing mechanisms and equipment. Analyzes production and service limitations and standards. Recommends revision of specifications. Formulates or helps formulate quality assurance policies and procedures. May conduct training on quality assurance concepts and tools. Interfaces with all other engineering components within the organization and with customers and suppliers on quality-related issues.
- + **Reliability/safety engineer:** Uses principles of performance evaluation and prediction to improve the safety, reliability and maintainability of products and systems. Plans reliability tests and conducts analyses of field failures. Develops and administers reliability information systems for failure analysis and performance improvement.
- + **Software quality engineer:** Applies quality principles to the development and use of software and software-based systems. Designs and implements software development and maintenance processes. Designs or specifies test methods for software inspection, verification and validation.
- + **Specialist:** As the primary assignment, performs a specific quality-related function within the organization's quality program. Examples include management representative and testing expert. Has received direct training or has been performing the activity for several years. Shows a high degree of skill performing that specific activity.
- + **Statistician:** Specializes in the use of statistical techniques for process control and other quality-related methods. May design research and testing methods. Reports and interprets statistical data to management.
- + **Supervisor:** Administers the company's quality improvement efforts within a defined department. Has direct reports that implement some aspect of the policies and procedures of the quality functions.
- + **Supplier quality engineer/professional:** Responsible for all quality improvement issues related to vendors and suppliers of materials, products or services used in development or manufacture. Assesses potential new suppliers. Works with suppliers to develop and improve the entire supply chain. May be involved in purchasing.
- + **Technician:** Performs basic quality techniques, possibly including calibration, to track, analyze and report on materials, processes and products to ensure they meet the organization's quality standards.
- + **Vice president/executive:** Establishes the direction for the development and administration of the organization's quality improvement efforts. Consults with peers on the attitudes and practices of quality throughout the organization to develop an environment of continual improvement in every aspect of the organization's products and services. Acts as a champion for quality.

Appendix C:



INDUSTRY DESCRIPTIONS

Examples of products in the manufacturing industries

Here are descriptions of a sample of the manufacturing industries represented in the salary survey:

- + **Aerospace vehicles (NAICS code 33641):** Aircraft, space vehicles and missiles, including parts and accessories.
- + **Chemicals and related products (NAICS code 325):** Adhesives, biological products, carbon black, cosmetics, explosives, fertilizers, industrial gases, in-vitro diagnostic substances, paint, perfumes, pesticides, petrochemicals, pharmaceuticals, sealants, soaps, toiletries and vitamins.
- + **Computer and electronic products (NAICS code 334):** Audio and video equipment, communications equipment (for example, telephones and televisions), computers and peripheral equipment (for example, monitors, terminals and storage devices), magnetic and optical media (manufacturing and reproducing), printed circuit boards, semiconductors and various navigational, measuring, medical and control instruments that contain electronic components.
- + **Defense (NAICS code 482):** Government establishments primarily engaged in criminal and civil law enforcement, police, traffic safety, and other activities related to the enforcement of the law and preservation of order. Combined police and fire departments.
- + **Electrical products (NAICS code 335):** Batteries (wet and dry), coaxial cable, electric lighting equipment (industrial and residential), fiber-optic cable, graphite products, light bulbs, refrigerators and other household appliances, switchboard and switchgear apparatus, vacuum cleaners and wiring harnesses.
- + **Fabricated metal products (NAICS code 332):** Ammunition and other ordnance, coatings, electroplating, engraving, forgings, handheld cutting and edging tools (for example, hand saws), hardware (for example, nails and bolts), heat treating, knives, machined parts, pots and pans, solenoid valves, stampings, powdered metal, powdered metal products, precision turned products and small arms.
- + **Food and related products (NAICS code 311):** Animal and fowl feed, coffee, dairy products, fruit products, grain products, meat products, pet food, seafood products, seasonings, tea and vegetable products.
- + **Machinery (NAICS code 333):** Agricultural machinery (for example, farm, lawn and garden equipment), commercial and industrial heating, ventilation and air conditioning systems, construction machinery, elevators, industrial machinery (for example, machinery for the paper, textile, printing, food and semiconductor industries), mining machinery, pneumatic equipment, refrigeration equipment (industrial) and service industry machinery (for example, automatic vending machines and dry cleaning machinery).
- + **Medical instruments and supplies (NAICS code 339):** Contact lenses, dental equipment and supplies, eyeglasses, medical devices and instruments that don't contain electronic components (for example, medical thermometers, stethoscopes, splints and syringes), orthopedic devices, prosthetic devices and surgical instruments, appliances and supplies that don't contain electronic components (for example, anesthesia apparatuses, retractors and sutures).
- + **Nonelectronic measuring, analyzing and controlling instruments (NAICS code 339):** Balances, blood testing apparatus, Bunsen burners, centrifuges, distilling apparatuses, laboratory incubators, laboratory ovens, laboratory thermometers, sample preparation apparatus and scales.
- + **Paper and related products (NAICS code 322):** Cardboard boxes, coated and laminated paper and paper products (for example, gift wrap and plastic-coated paper bags), diapers, envelopes, file folders, office paper, paper bags, paper food containers,

paperboard products, and pulp, paper and paperboard mills.

- + **Primary metal products (NAICS code 331):** Electromechanical ferroalloy products, ferrous and nonferrous metal foundries, and ferrous and nonferrous metal production and processing (for example, alloying, drawing, extruding, refining, rolling and smelting).
- + **Rubber and plastic products (NAICS code 326):** Belts, cellophane, foam products (for example, polystyrene and urethane), hoses, laminate and laminate products, plastic bags, plastic bottles, plastic containers, plastic pipes and pipe fittings, rubber gaskets and tires.
- + **Toys, sporting goods, pens, jewelry and miscellaneous products (NAICS code 339):** Brooms, brushes, burial caskets, fitness equipment, games, jewelry, mops, pens, pencils, musical instruments, staplers and toys.
- + **Transportation and aerospace products (NAICS code 336):** Aircraft, armored vehicles (for example, military tanks), automobiles, boats, guided missiles, motor homes, motor vehicle parts except tires (for example, engines, carburetors, seats, power train components and transmission components), railroad equipment, trucks (light and heavy duty) and utility vehicles.

Examples of services in the service industries

Here are descriptions of a sample of the services provided by the service industries represented in the salary survey:

- + **Construction services (NAICS 23):** General contracting (for example, residential, industrial and commercial buildings), heavy construction contracting (for example, highways, bridges and tunnels) and special trade contracting (for example, roofing and siding).
- + **Consulting and other professional, scientific and technical services (NAICS code 54):** Accounting, advertising, certification, computer systems design, consulting (management, scientific and technical), engineering, R&D and testing services.

- + **Educational services (NAICS code 61):** Computer training, colleges and universities, elementary and secondary schools, high schools, junior colleges, management training, technical schools and trade schools.
- + **Financial and insurance services (NAICS code 52):** Commercial banks, credit card companies, credit unions, insurance carriers and agencies, mortgage brokers, sales financing companies and savings institutions.
- + **Healthcare services (NAICS code 62):** Blood and organ banks, dentist offices, diagnostic imaging laboratories, doctor offices, hospitals, nursing homes, outpatient centers and residential care facilities.
- + **Information services (NAICS code 51):** Book publishing, data processing and archiving, database publishing, greeting card publishing, newspaper publishing, radio broadcasting, telecommunications (wired and wireless) services and television broadcasting (including cable networks).
- + **Local, state and federal government services/public administration (NAICS code 92):** Federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions within a given area.
- + **Nuclear electrical power generation (NAICS code 221113):** Operating nuclear electric power generation facilities. These facilities use nuclear power to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or electric power distribution systems.
- + **Oil and gas extraction and refining (NAICS codes 211 and 324):** Crude petroleum extraction, natural gas extraction, natural gas liquid extraction and petroleum refining.
- + **Professional, scientific and technical services (consulting, testing and custom programming services) (NAICS code 541990):** Engaged in the provision of professional, scientific, or technical services—except legal services; accounting, tax preparation, bookkeeping, and related services;

architectural, engineering, and related services; specialized design services; computer systems design and related services; management, scientific, and technical consulting services; scientific research and development services; advertising, public relations, and related services; market research and public opinion polling; photographic services; translation and interpretation services; and veterinary services.

- + **Retail services (NAICS codes 44 and 45):** Automobile (new and used) dealers, clothing retailers, department stores, furniture stores, garden centers, gasoline stations, sporting goods stores and supermarkets.
- + **Social services (NAICS code 62):** Community food services, community housing services, emergency and other relief services, social assistance centers and vocational rehabilitation services.
- + **Transportation services (air, rail, truck and water transportation of products or passengers) (NAICS code 48-49):** Transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation.
- + **Utilities, including electric, gas, water and sewage (NAICS code 926130):** The administration, regulation, licensing, and inspection of utilities, such as communications, electric power (including fossil, nuclear, solar, water and wind), gas and water supply, and sewerage.
- + **Wholesale (NAICS code 423990):** The merchant wholesale distribution of durable goods (except motor vehicle and motor vehicle parts and supplies; furniture and home furnishings; lumber and other construction materials; professional and commercial equipment and supplies; metals and minerals (except petroleum); electrical goods; hardware, and plumbing and heating equipment and supplies; machinery, equipment and supplies; sporting and recreational goods and supplies; toy and hobby goods and supplies; recyclable materials; and jewelry, watches, precious stones and precious metals).