

# Slow and Steady

## Hopeful signs point to ongoing recovery

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Last year, there was a lower than usual response rate—just under 11%—for QP’s Salary Survey. It wasn’t surprising because the percentage of respondents in 2009 who had reported being unemployed, retired or laid off was 4.9%, a historic high. Given the slow pace of the economic recovery, it was expected that many of those people would not yet have re-entered the workforce a year later.

In 2010, the percentage of respondents who reported being unemployed, retired or laid off dropped to 3.1%. This year, it dropped further to 2.7%. Perhaps some of those past respondents have stopped participating, or perhaps it’s a sign of the start of an increase in survey response rates that will continue. Table 1 breaks down this year’s respondents by employment status.

Although economists officially declared the end of the recession in the United States in June 2009, it’s clear the recovery has been painfully slow worldwide. Thus, this year’s survey again included questions about steps the respondents’ organizations

were taking as a result of the slow economy. Respondents could select any of the following:

- Pay cuts.
- Salary freezes.
- No bonuses.
- Furloughs.
- Layoffs.
- Hiring freezes.
- Reduced or cut 401(k) or similar employer contributions.

In addition, respondents could check “Other” and describe the steps their organizations had taken. Many of those responses were similar to the steps on the list of options. For example, an organization might not have frozen salaries but instead capped raises at 1 or 2%. This would have been reported among the “other” steps taken.

Except for the last option—reduced employer contributions—the same choices were offered to respondents in the 2009 and 2010 surveys. To compare years, only those steps listed in all three surveys were used to create Figure 1 (p. 28), which shows the percentage of respondents reporting the number of steps taken. For the second year in a row, the percentage reporting no steps taken has risen considerably.

If we take the steps reported from the list of options and add those that were reported as “other” and were unambiguous, you see the steps organizations have taken sorted into broad categories. Table 2 shows the number of steps reported within each of the five most common categories.

It should be noted that the numeric columns in Table 2 do not count persons reporting, but rather discrete steps taken; a company may take more than a single step with regard to salaries, such as freezing wages for hourly employees while also cutting managers’ salaries. Remember, the survey respondents are individuals, not organizations. A single organization’s

### Employment status of respondents / TABLE 1

	Count	Percentage
A regular, full-time employee	6,115	93.3%
A regular, part-time employee	35	0.5
A regular employee who is also a self-employed consultant	163	2.5
A self-employed consultant	65	1
Unemployed, retired or laid off for more than six months	95	1.4
Unemployed, retired or laid off within the last six months	84	1.3

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

actions may be reported several times if multiple employees of that organization responded to the survey.

### Collecting the data

To get as many survey responses as possible, QP sent email invitations to U.S. and Canadian ASQ members who had opted to receive email messages from ASQ. Those members who were listed as retired or unemployed weren't included.

In all, 57,029 emails were sent. Overall, QP obtained 7,036 responses, giving a response rate of 12.3% (7,036/57,029).

Of the 7,036 responses, 6,557 were usable and fell into one of the six employment status groups in Table 1. There were 479 responses not used because they were incomplete. To be included in the survey, regular employees needed to provide a salary and a job title, and self-employed consultants needed to provide a daily rate, hourly rate or gross earnings.

In a few cases, a respondent claimed to be a self-employed consultant and an employee of an organization, but he or she supplied sufficient information only to be validated as one or the other. In these cases, the record was kept, and the respondent was treated as either an employee or a consultant.

The data from the 6,150 full-time and part-time regular employees and the 163 regular employees who also work as self-employed consultants were used to create the 20 sections in "Part 1. Regular Employee Results," which starts on p. 30. The data from the 65 self-employed consultants and the 163 regular employees who also work as self-employed consultants were used to produce the four sections in "Part 2. Self-Employed Consultant Results," which can be found at [www.qualityprogress.com/salariesurvey](http://www.qualityprogress.com/salariesurvey).

Except for the information provided in this introduction, the salary survey report doesn't include data from the people who are unemployed, retired or laid off.

The vast majority of those who participated in the survey worked in the United States and Canada. Because there were few respondents from other countries, only a few sections in the salary survey report include results from this group, which is labeled "International." Sections 13 and 24 discuss the countries represented in this group.

You can learn whether a table or figure includes international results by glancing at the information boxes below the graphics. In addition to specifying whether a table or figure includes results from international, U.S. and Canadian respondents, this box specifies whether it includes results from full-time respondents and part-time respondents. Some boxes provide additional explanation.

Of the 24 sections in the salary survey report, 20 are posted online at [www.qualityprogress.com/salariesurvey](http://www.qualityprogress.com/salariesurvey). The website also includes the entire survey report downloadable in PDF format.

### Statistical terms

In case you're unfamiliar with the statistical terms and job titles in these sections, we've included brief descriptions here:

- **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.

## Steps taken in response to recession by category / TABLE 2

Category	Reports of steps taken		
	2011	2010	2009
Adjusted staffing levels	3,234	4,939	8,456
Cut salary/wages	1,323	3,044	4,751
Cut bonuses	786	1,486	2,312
Reduced benefits	504	1,051	N/A
Adjusted work hours	337	659	1,142

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

- **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.

### Job titles

Here are the suggested definitions for the job titles used in the 2011 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 organization to drive up customer satisfaction levels and 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

## Number of steps taken as a result of the economic recession / FIGURE 1

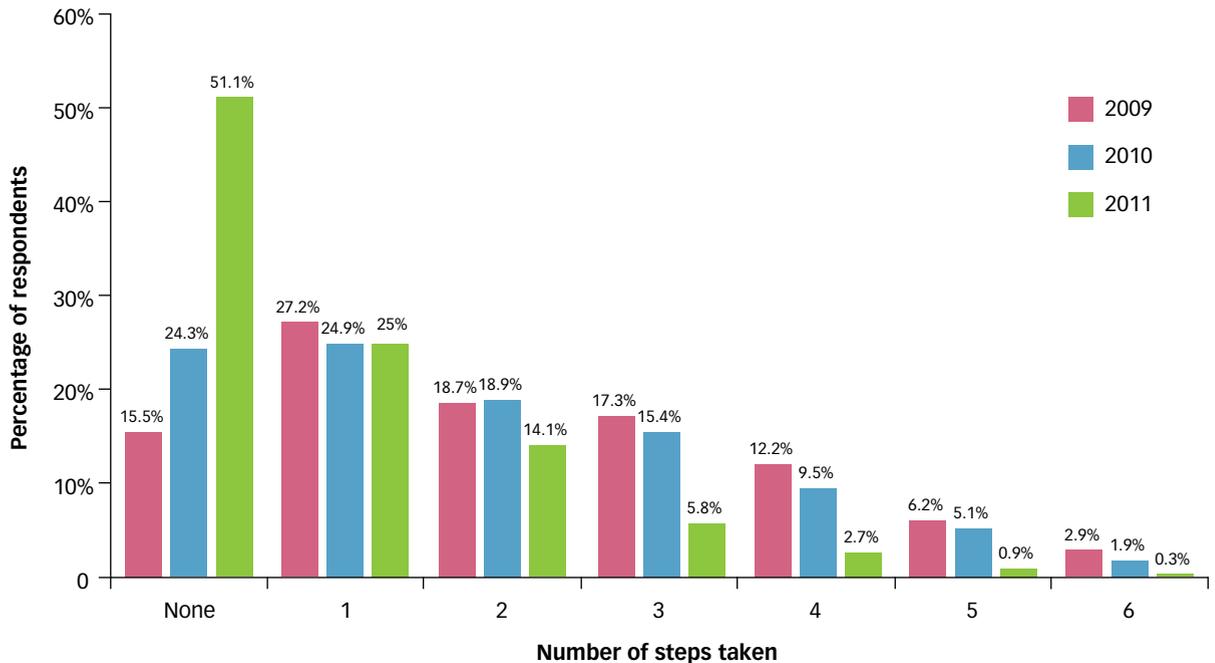


Figure 1 includes results for:  Full-time employees,  Part-time employees,  U.S. employees,  Canadian employees,  International employees

of the quality 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 an organization's quality or business improvement efforts, such as developing and administrating 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 direct reports.

- **Master Black Belt:** Six Sigma or quality expert responsible for strategic implementations within the business. Qualified to teach the methods, tools and applications to other Six Sigma facilitators 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, statistician and testing expert. Has received direct training or has been performing the activity for a number of years. Shows a high degree of skill performing that specific activity.

- **Supervisor:** Administers the organization's quality improvement efforts within a defined department. Has direct reports who implement some aspect of the policies and procedures of the quality functions.

## Hear Us Out

Listen to a webcast featuring one of the authors who crunched the survey data and analyzed the results.

Visit [www.qualityprogress.com/salariesurvey](http://www.qualityprogress.com/salariesurvey) for a link to ASQ's membership webpage, which contains the webcast on the salary survey. The webcast is a free member gift from ASQ.



- **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:** Uses 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.

### About currencies

In sections of this report that include only salaries of Canadian employees and consultants working primarily in Canada, the figures are noted in Canadian dollars so they can be compared with other Canadian workers. Some Canadian employees and consultants are paid in U.S. dollars.

In these cases, the dollar figures they supplied were converted to Canadian dollars at the exchange rate effective Aug. 1, 2011: 1 \$Can = 0.9547 US\$. **QP**

