Lucent Technologies
Bell Labs Innovations



Network Professionals' Job Satisfaction

Highlights

- Since 1998, job satisfaction has risen consistently. Currently, more than three-quarters of network professionals are satisfied with their jobs compared to only 56 percent in 1998.
- The job market has become more stable, with the average length of time respondents stay with their current employers increasing by nearly two years. A worker's average number of employers over a six-year span dropped from 2.4 in 2001 to 2.1 this year.
- Four factors continue to be rated tops in impacting job satisfaction: opportunity to learn new skills, type of work, achievement opportunities, and opportunity to take responsibility. Respondents' satisfaction with each of these factors lags significantly behind their stated importance.
- Respondents who strongly feel that their job provides the opportunity to grow professionally (advancement) are also most likely to be very satisfied with their jobs. However, only half of respondents are satisfied with their opportunities for advancement.
- Poor communications are the leading source of job dissatisfaction. A majority of respondents believe that communications from senior management are poor and that their employers do a poor job of motivating employees. A majority of respondents also feel that managers in their organizations do a poor job of communicating performance criteria and providing helpful feedback on performance.

Contents

1 Highlights
2 About Lucent Technologies Worldwide Services
2 About Lucent Network Industry Surveys
3 Introduction
3 The Bottom Line
4 Overall Job Satisfaction
7 Factors That Influence Job Satisfaction
11 Work Environment Ratings
12 Work Experience Ratings
13 Job Performance Ratings
14 Reward System Ratings
16 Training and Skills Ratings
17 Best and Worst Job Characteristics
19 Respondent Demographics
23 Respondent Comments
23 Methodology

About Lucent Enterprise Professional Services

Lucent Enterprise Professional Services provides a full lifecycle of services and solutions that help clients plan, design, implement, and operate networks in today's rapidly changing and complex environment. We have a proven track record of more than 15,000 consulting engagements worldwide.

Lucent Technologies is headquartered in Murray Hill, New Jersey, USA. Visit the Lucent Services Web site at www.lucent.com/services.

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About Lucent Network Industry Surveys

Lucent Enterprise Professional Services conducts industry survey projects intended to provide IT managers with insight into key issues impacting the ability to develop and deploy network-centric business applications. Previous survey report topics include:

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- E-Business Network Architecture/Infrastructure
- Enterprise Operating Systems and Directory Services
- Management Intranets
- Network and Systems Management Total Cost of Ownership
- Network Challenges and Opportunities in Uncertain Times
- Network Convergence
- Network Operations Centers
- Network Professionals Job Satisfaction
- Network Quality of Service
- Network Security
- Performance Management and Engineering
- Remote and Mobile Network Access
- Remote Network Management
- Service Level Management
- Storage Networking
- Virtual Private Networks

To see the results of these surveys, go to the Lucent online Resource Library at **www.lucent.com/knowledge/resourcelib** and click on "Case Studies."

For more information regarding the network industry survey program, please contact:

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Introduction

The challenges that the networking industry has faced the last two years have impacted network professionals worldwide. The slowdown has forced many enterprises to curtail spending on new technologies, reducing their project load significantly. In lock-step with the reduction in spending on hardware and services, these enterprises have often either frozen or reduced staff. As a result, the mismatch between demand of network professionals and supply has narrowed significantly, changing the dynamics of the market. This survey report will help IT managers understand the impact these events have had on job satisfaction among this group of specialized technology experts, enabling them to better address their networking staffing requirements.

From January 19 through February 28, 2002, Lucent Worldwide Services conducted a Web-based survey on job satisfaction of network professionals worldwide, which was completed by 107 network professionals. Previous surveys on network professionals' job satisfaction were conducted in January 1998, February 1999, February 2000, and February 2001. Taken together, these five surveys yield valuable insight into how well companies are addressing the needs of networking professionals and what steps can be taken to improve job satisfaction in the coming year. They also provide networking professionals with a benchmark against which to assess their own job experience and rewards. The complete results of these surveys are available from the Lucent Resource Library at **www.lucent.com**.

The Bottom Line

The most heartening news in this year's job satisfaction survey is that, despite all the travails the network industry has endured over the last few years, job satisfaction continues to rise. However, complacency should not be allowed to settle in. The market most surely will recover, if not within the next year, soon thereafter, and the demand for skilled network professionals will again outstrip supply by significant margins. Fostering high levels of job satisfaction during this time will go a long way toward discouraging job changes as market conditions improve.

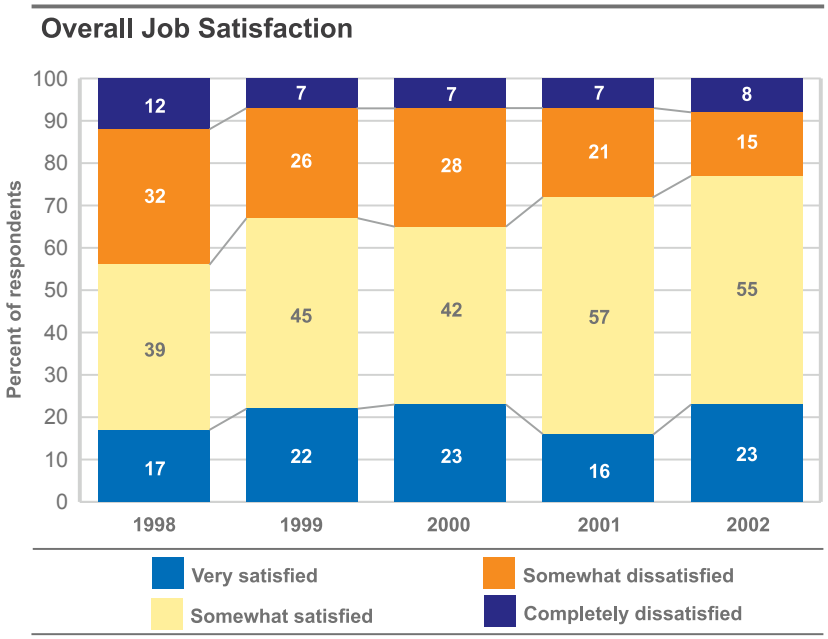
While pay is always a significant factor in job satisfaction, it is not the only one, maybe not even the most important. Based on our survey results, IT managers have a number of non-monetary strategies that can be employed to engender increased levels of job satisfaction, including the following:

- Focus on ways to provide network professionals opportunities to learn new skills through internal training programs, employing peer-to-peer knowledge sharing as a low-cost alternative to pricey external training.
- As network professionals gain more knowledge and skills, give them more individual responsibility to make decisions, and then recognize their achievements - monetarily when possible, but always through non-monetary means, particularly to peers.
- Entreat senior management to communicate with the troops regularly, not just in large company meetings, but through smaller get-togethers that focus on the role of the network organization. These communications should share management's vision and strategy, and emphasize how the network organization contributes to achieving overall goals. Make sure to allow for this communication to flow in both directions.
- Though salaries are usually restricted by budget considerations, they must always accurately reflect each person's contribution. Total compensation must be equitable across the organization. Deal with inequalities quickly and decisively to maintain high morale.

Overall Job Satisfaction

Over the past five years there is a clear and continuing trend toward higher levels of job satisfaction. Even with the squeeze many have felt because of the technology market slowdown, job satisfaction has continued to rise. In this year's job satisfaction survey, more than three-quarters of network professionals indicate satisfaction with their current jobs. This result verifies the steady improvement in this metric, going back to the 1998 survey when only 56 percent of respondents expressed overall satisfaction with their jobs.

One caution, however, is that this improvement has been mostly due to greater numbers of respondents who are somewhat satisfied. The percentage of respondents who are very satisfied has been steady since 1999. The percentage of network professionals who are completely dissatisfied with their jobs has also remained steady, with those who are somewhat dissatisfied declining by more than half since 1998.



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Later in this report, we will discuss other details of job satisfaction and identify some of the areas where network organizations can make changes to help improve overall job satisfaction among not only those who are dissatisfied, but to help move future respondents from the *somewhat satisfied* category to the *completely satisfied* category.

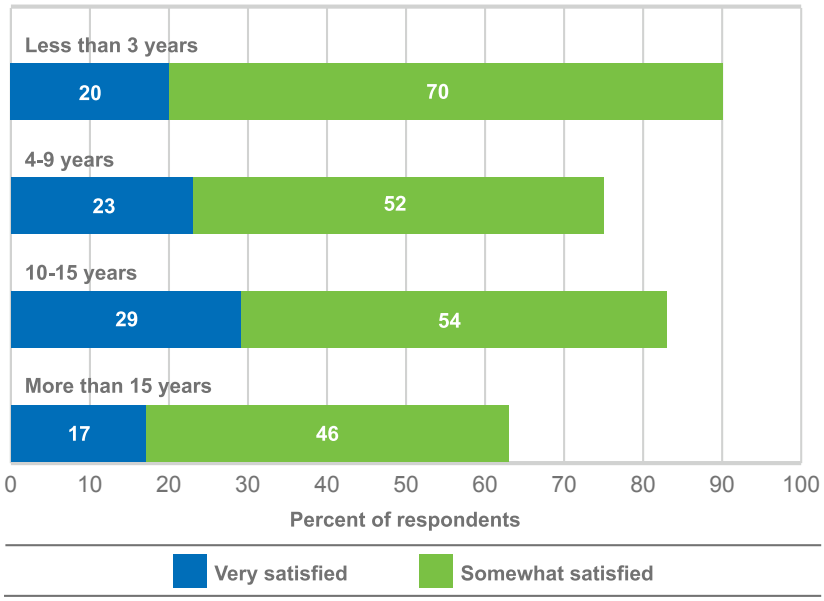
With the good news on overall job satisfaction in the industry, the next four charts dissect respondents into multiple, discrete categories, which provide further insights into factors that have influenced overall job satisfaction.

Length of experience in the networking industry is a mild indicator of overall job satisfaction. Nearly all networking professionals (90 percent) in the survey with fewer than three years of experience are satisfied with their jobs overall, a great improvement over last year. In the 4-9 year and 10-15 year ranges, satisfaction falls to 75 percent and 83 percent, respectively. The real concern, however, comes from respondents who have more than 15 years experience, where only 63 percent are satisfied with their jobs overall. This also represents a decline from last year's survey, when this figure was 75 percent.

One year does not a trend make, so it is too early to be overly concerned about the decline in satisfaction of seasoned network professionals. However, IT managers would be wise to pay particular attention to the needs of this group.

Looking at overall job satisfaction from the perspective of length of time with the respondent's current employer, there is no clear pattern of job duration impacting job satisfaction. Sixty-nine percent of respondents who have been with their employer fewer than 2 years are satisfied with their jobs, 79 percent of respondents at the same employer for two to four years are satisfied, while only 73 percent of respondents with more than four years working for the same employer are satisfied with their jobs. These results reflect respondents who have been with their current employers for at least four years.

Overall Job Satisfaction by Networking Experience



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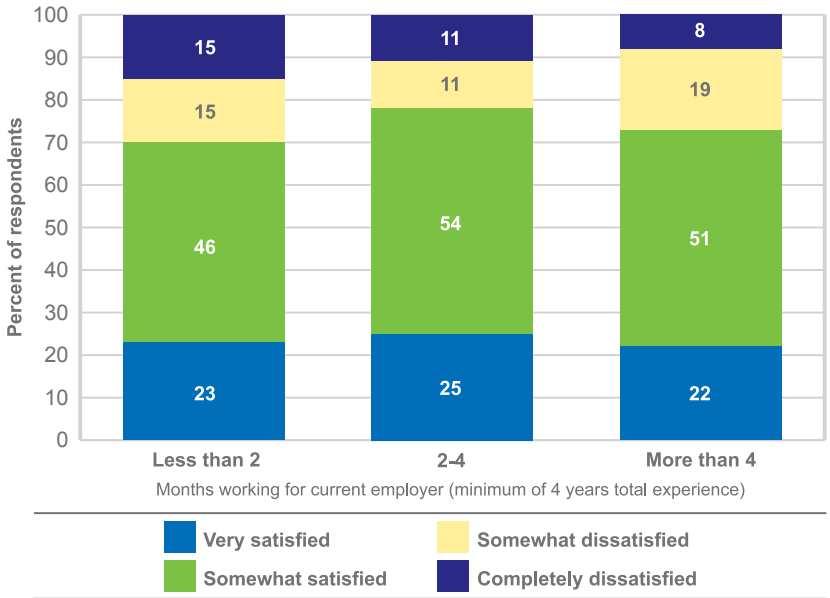
Overall Job Satisfaction by Job Longevity



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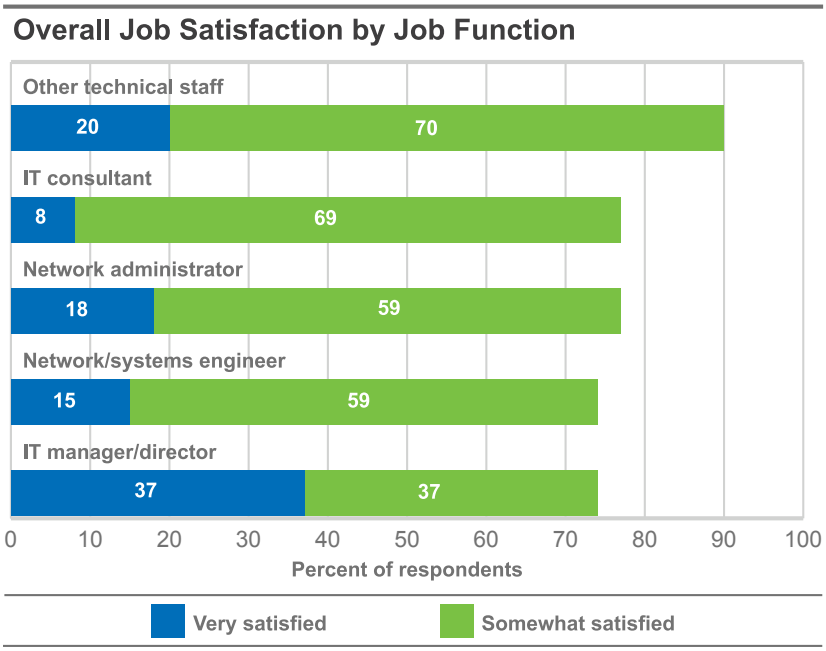
Job function also affects overall job satisfaction. IT managers and directors rank the lowest for the percentage who are very or somewhat satisfied overall with their jobs. Surprisingly, though, these respondents are by far the most likely to be very satisfied. These results are similar to last year's survey.

In a nearly complete reversal from last year's survey, IT consultants are by far the least likely to be very satisfied with their jobs, with only eight percent expressing this sentiment. Last year, 29 percent were very satisfied. Though percentages typically vary somewhat from year to year, this large drop is indicative of real changes in the market. As we alluded to earlier, the reduction in purchasing services has likely squeezed the consultant community, and negatively affected job satisfaction as a result.

In 2000 and 2001, network professionals in small companies (less than 500 employees) have had slightly higher levels of overall job satisfaction. Although the difference has been only 0.1 – 0.2, the consistency of the results from year to year indicates a real difference.

This year shows a different story. While job satisfaction has remained steady in small companies, it has increased in all other categories, especially companies with 5,000-19,999 employees. While it is difficult to draw clear inferences from this dramatic change, we can speculate that small companies have been harder hit by the tightening of IT budgets. It is also worth noting that companies with 20,000 or more employees continue to fare worst in job satisfaction for their IT employees.



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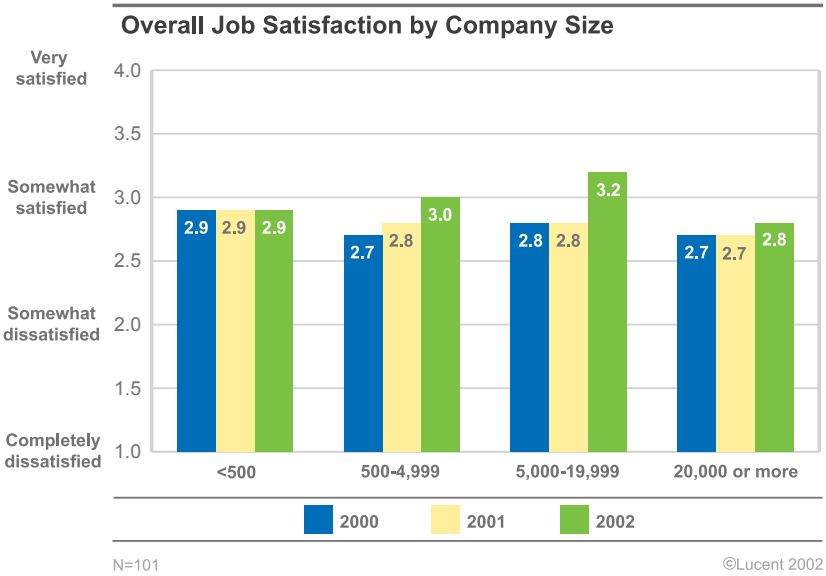

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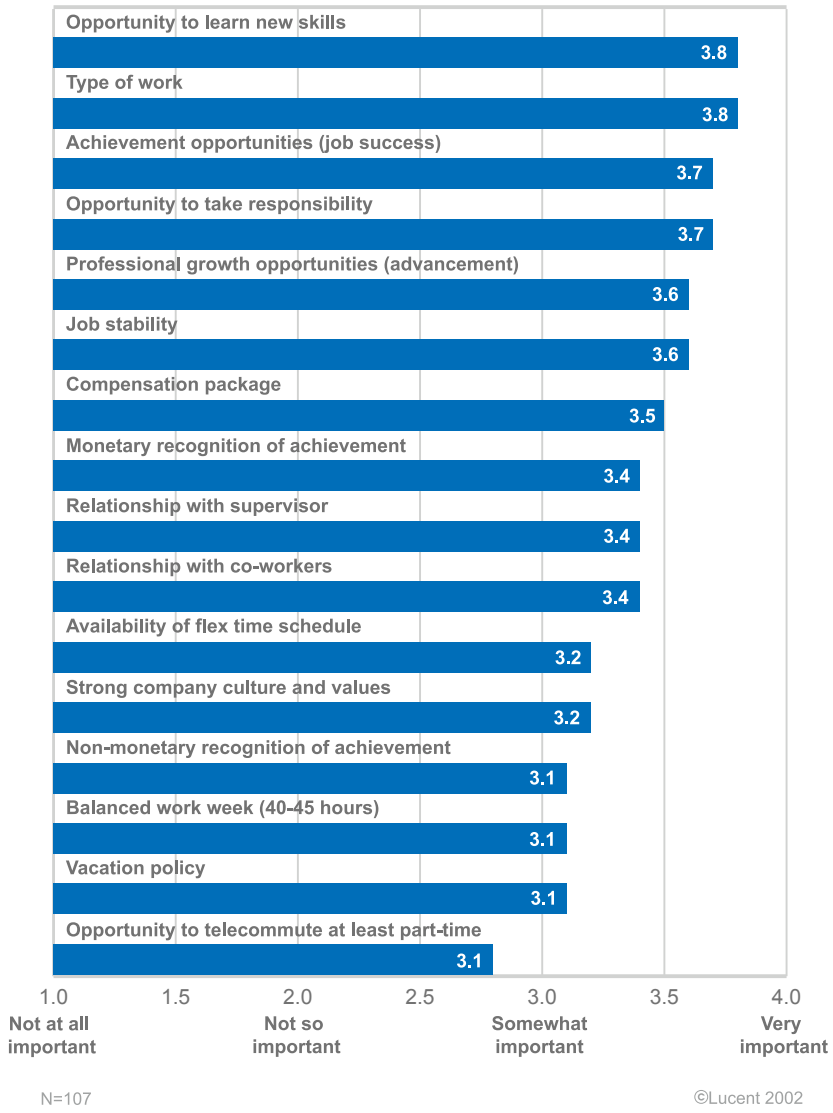
Factors That Influence Job Satisfaction

In order to assess what has the greatest and least influence on job satisfaction, we asked respondents to rate the importance of 16 factors that contribute to their overall job satisfaction. Then we went on to ask respondents to indicate their level of satisfaction with each of these 16 factors. Unfortunately, comparing the two results shows that significant gaps exist between importance and satisfaction on all 16 factors.

Over the past four surveys, the ranking and rating of all 16 factors has been remarkably consistent. The top five factors in importance in the 1999, 2000, 2001, and 2000 surveys have been the opportunity to learn new skills, achievement opportunities, type of work, opportunity to take responsibility, and professional growth opportunities. It is important to note that none of these top factors directly relate to monetary rewards, which are farther down the importance list, which may account for the improvement this year in overall job satisfaction despite the fact that the brakes have been applied to IT spending in many companies.

Just below these leading job factors is job stability. We introduced this factor in last year's survey, and got the same result this year in both rating and ranking. Clearly, in a volatile market, job stability is a strong consideration toward job satisfaction; still, five other factors rate even higher.

Importance of Various Job Factors



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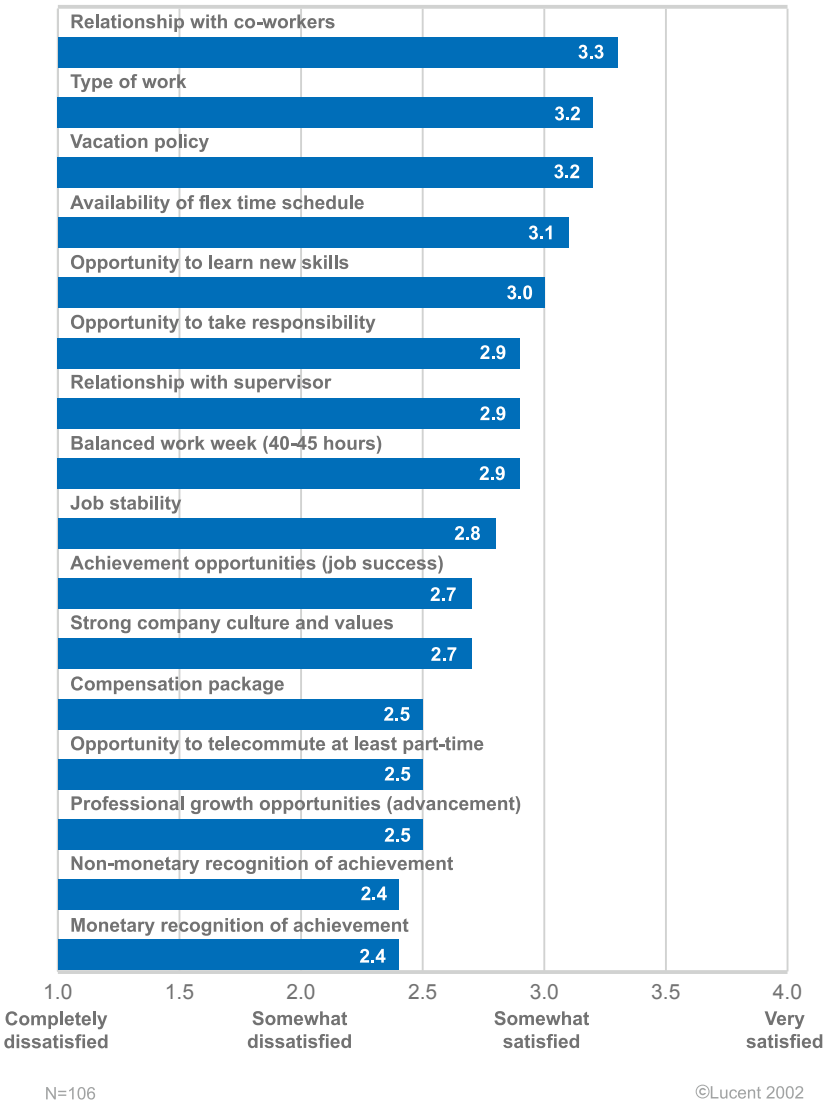
... significant gaps exist between importance and satisfaction on all 16 (job) factors.

In every job factor category, satisfaction lags significantly behind importance, a result that is similar to the last two years' surveys. Considering the top four factors in importance, only one – type of work – is also near the top in satisfaction ratings. This was also second in satisfaction in the 2000 and 2001 survey.

For the last three years, respondents' relationships with their co-workers have been the most satisfying part of their jobs, rating nearly the same as its importance. However, this factor is tied for eighth in importance, so it is not a great influence on overall job satisfaction.

Consistent with the last two surveys, both monetary recognition of achievement and non-monetary recognition of achievement are at the very bottom of the list in terms of satisfaction. Clearly, IT managers have not been able to improve either of these factors. While in the current business climate it is understandable that they can't address respondents' monetary concerns, this should be a clarion call to step up with innovative ways to provide non-monetary awards for achievement by their employees.

Satisfaction with Various Job Factors



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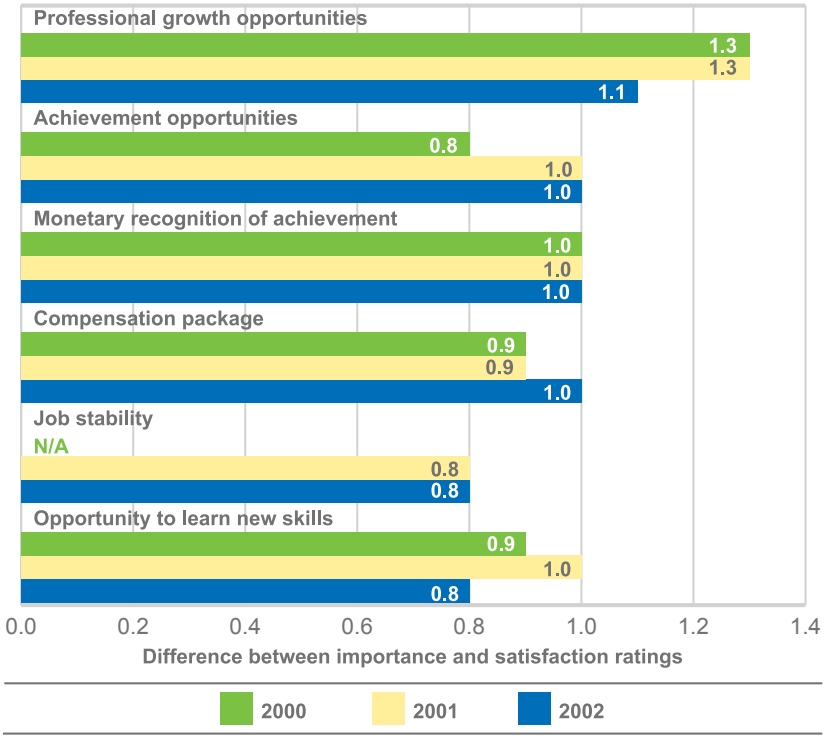
Identifying the job factors with the highest disparity between importance and satisfaction can help IT managers focus on those that have the most impact on job satisfaction. Overall, the disparity between satisfaction and importance has not changed much over the surveys from the past three years. Except for the order, these six factors are the same in disparity as in the 2001 survey.

Professional job growth opportunities continue to have the greatest disparity between importance and satisfaction, although some improvement was seen this year. Also improving this year is the opportunity to learn new skills, which dropped to just a 0.8 difference in ratings.

Counterbalancing these gains, however, three of the other factors (achievement opportunities, monetary recognition of achievement, and job stability) remain unchanged. As might be expected in hard times, the disparity between compensation package importance and satisfaction rose slightly. The silver lining, perhaps, is that both compensation package and monetary recognition did not spike up as many companies put raises, bonuses, and other compensation on a short leash.

Job Factors with Highest Disparity Between Importance and Satisfaction



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Professional job growth opportunities continue to have the greatest disparity between importance and satisfaction…

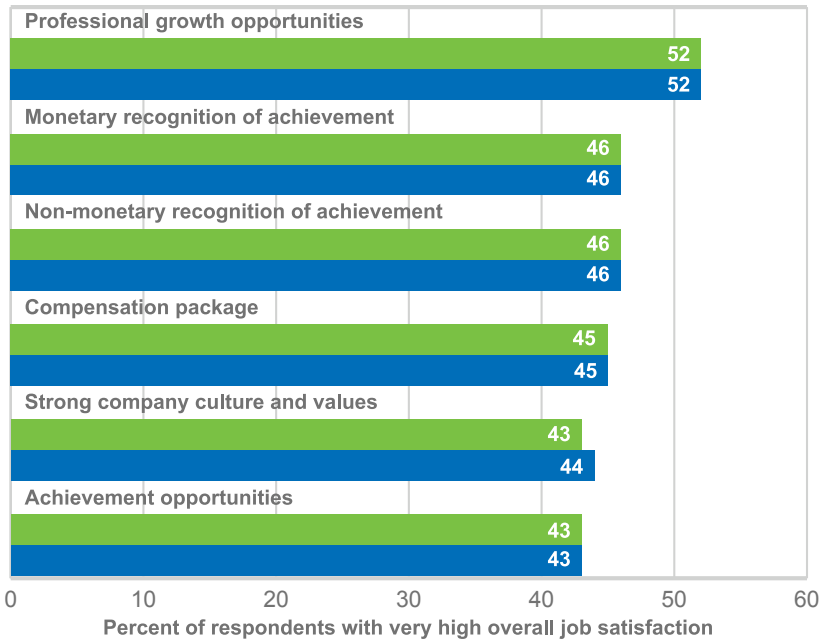
Another way to analyze job satisfaction is to examine each factor to determine how strongly it correlates with very high overall job satisfaction. We took the respondents from each job factor who say that they are very satisfied, and then looked at the percentage of these respondents who also say that their overall job satisfaction is very high. In this way, we can isolate those factors that have the highest impact on overall job satisfaction.

The six factors with the highest correlation this year also topped the list the last two years, indicating that these are definitely the areas that provide the greatest impact on job satisfaction.

Professional growth opportunities showed the strongest correlation, with 52 percent of the people who say they are very satisfied with their professional growth opportunities also very satisfied with their current job overall. Both monetary and non-monetary recognition of achievement again show they also have a strong influence on job satisfaction, as does compensation package. Although these three factors all show up well down the list of job factor importance, they all strongly impact high overall job satisfaction.

One other factor worth noting is a strong company culture and values. When rated in importance, this factor was only tied for tenth, yet it is the fifth in influence on overall satisfaction. This reinforces the supposition that many options other than monetary rewards are available to boost satisfaction among employees.

Job Factors with Strongest Correlation Between High Satisfaction and High Overall Job Satisfaction



(Note: percentage is based on respondents who are very satisfied with each individual job factor.)

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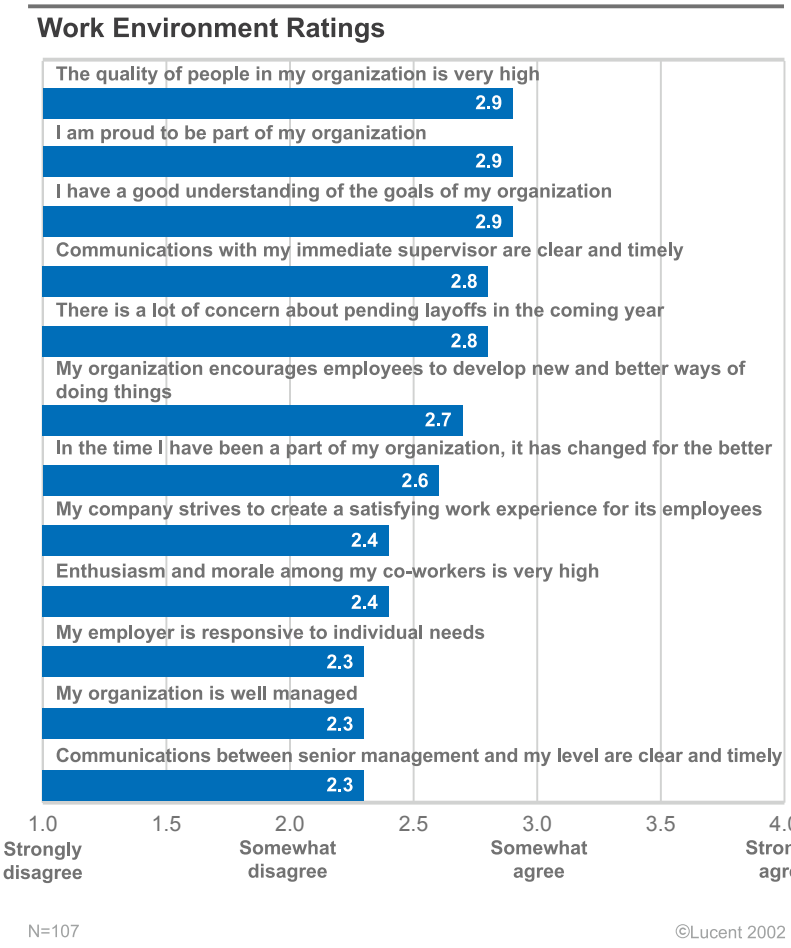
Work Environment Ratings

The job factor for which respondents have the highest level of satisfaction is their relationship with co-workers. This view is reinforced by the results, showing that more than 70 percent agree that the quality of people in their organizations is very high and that they are proud to be a part of their organizations. Nearly as good is the fact that more than 60 percent of respondents agree that they have a good understanding of the goals of their organizations and that communications with their immediate supervisors are clear and timely. These four work environment factors lay a good foundation for job satisfaction.

Undermining these positives results, however, is the widespread (63 percent of respondents) concern about layoffs in the coming year. While this is a business development about which IT managers may have little control, keeping the lines of communication open is vitally important to maintaining morale.

While communications with immediate supervisors are good, communications with senior management are not good at all – a statement that more than 60 percent of respondents would agree with. On top of that, nearly as many do not think that their organizations are well managed or that their employers are responsive to individual needs.

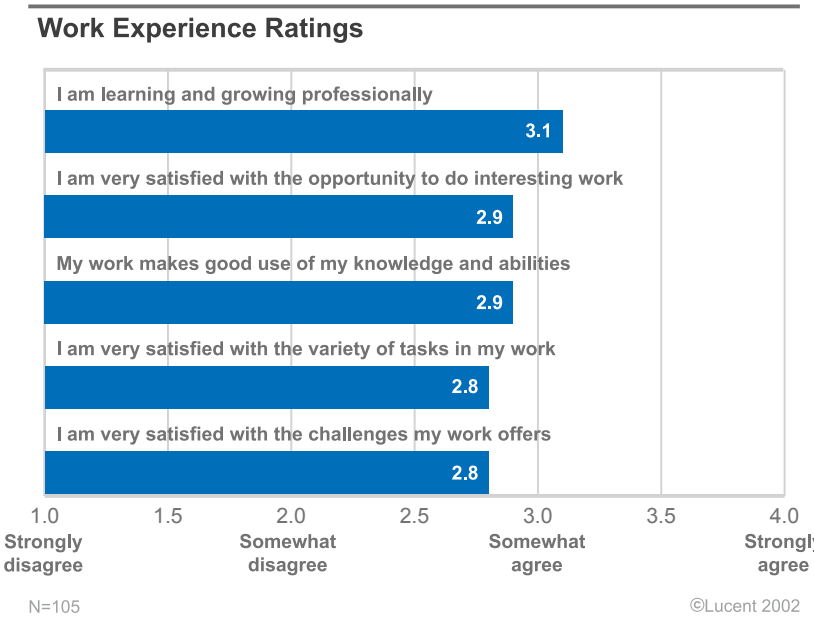


Overall, the message is that companies and organizations can do a much better job of communicating with employees at all levels, and respond with programs that account for individual goals and needs.

Work Experience Ratings

We asked respondents to indicate their agreement with six positive work experience statements. Overall, a clear majority (more than 60 percent) of respondents agreed with all six statements.

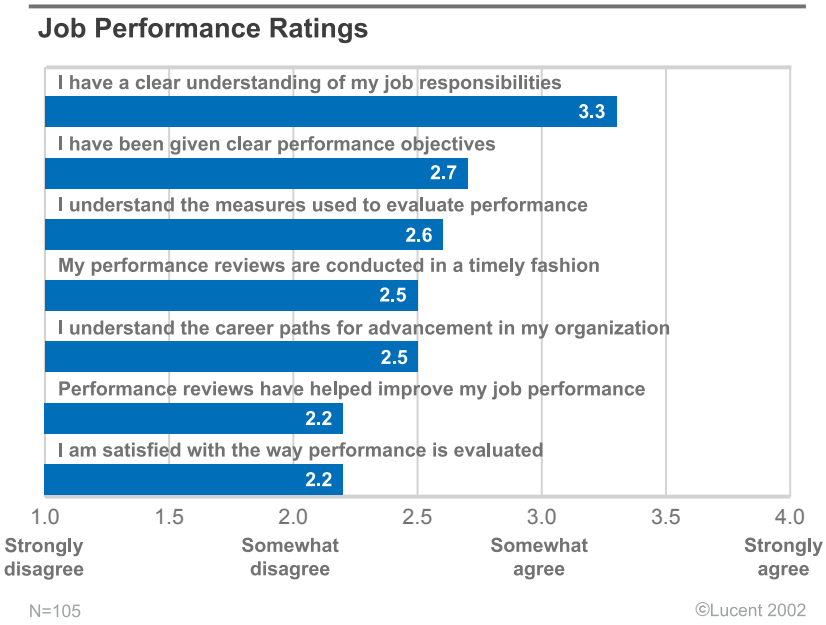
At the high end, 81 percent of respondents agree that they are learning and growing professionally. This correlates closely with the previous finding that respondents consider the opportunity to learn new skills the most important factor in their overall job satisfaction. Similarly, 66 percent of respondents say that they are very satisfied with the opportunity they have to do interesting work, and an equal number say that their work makes good use of their knowledge and abilities. However, similar to what we noted the last two years, approximately two out of five respondents would like their work to be more challenging and provide a greater variety of tasks to perform.



Job Performance Ratings

Considering seven characteristics of job performance, respondents in this year's survey gave remarkably similar answers to the same question in the last three years' surveys. In fact, both the actual rating numbers and the relative order of important are virtually identical. A substantial majority of respondents (83 percent) agree that they have a clear understanding of job responsibilities, and 56 percent agree that they have been given clear performance objectives. However, a majority of respondents are dissatisfied with the way performance is evaluated, do not agree that performance reviews help improve job performance, and do not have a clear understanding of the career paths for advancement.

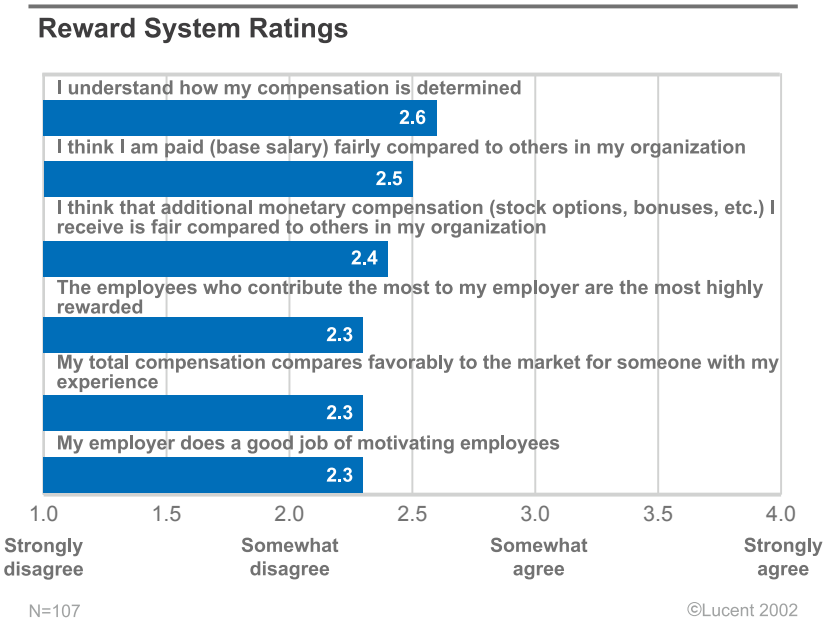
With the exception of understanding job responsibilities, a large percentage of respondents are not getting good guidance and feedback on their performance. This is clearly one category of job satisfaction factors to which IT managers should make significant improvements. Equally important, it is an area where the current economic environment should not hinder improvement efforts.



Reward System Ratings

Looking at the ratings for six positive reward systems characteristics, respondents' agreement with all six is fairly low, with no appreciable change compared to the last three year's surveys. In fact, a majority of respondents do not agree with four of the six statements, specifically those rated 2.4 or 2.3. The largest block (27 percent) of respondents strongly disagree with the statement: *The employees who contribute the most to my employer are the most highly rewarded*.

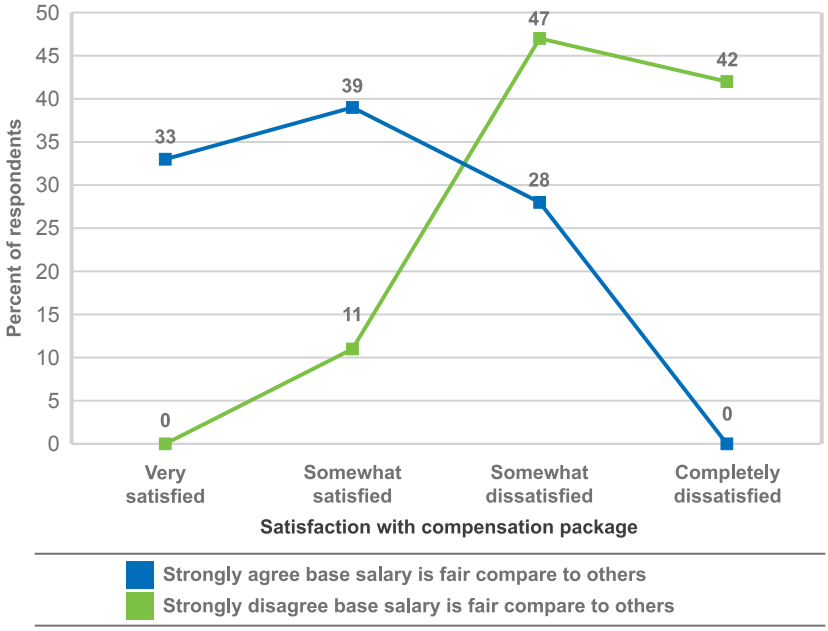
Although IT managers may be hamstrung somewhat in addressing compensation compared to the market as a whole, according to these results, they are not doing a very good job of communicating how compensation is determined. Consequently, they are leaving too many employees feeling that there are inequities in the system. This is another area that should be addressed in order to raise overall job satisfaction.



Respondents views on whether they are paid (base salary) fairly compared to others in their organization is split nearly equally, with just slightly more than half (53 percent) agreeing with that statement. To measure the impact this metric has on their satisfaction with their total compensation package, we looked at the respondents who strongly agreed and those who strongly disagreed with this statement. A very strong relationship between these two job satisfaction factors emerged.

When respondents strongly agree that their base salary is fair compared to others in their organization, the vast majority (72 percent) are satisfied with their total compensation, and the remaining respondents are only somewhat dissatisfied. On the other hand, when respondents strongly disagree that their base salary is fair compared to others in their organization, only eleven percent are satisfied with their overall compensation package, while 42 percent are completely dissatisfied. Satisfaction with base salary as compared to others in the organization is an important key to satisfaction with a compensation package. Other elements, such as stock options and bonuses, cannot overcome this perception, whether accurate or not.

Correlation Between Fair Pay Perception and Satisfaction with Compensation



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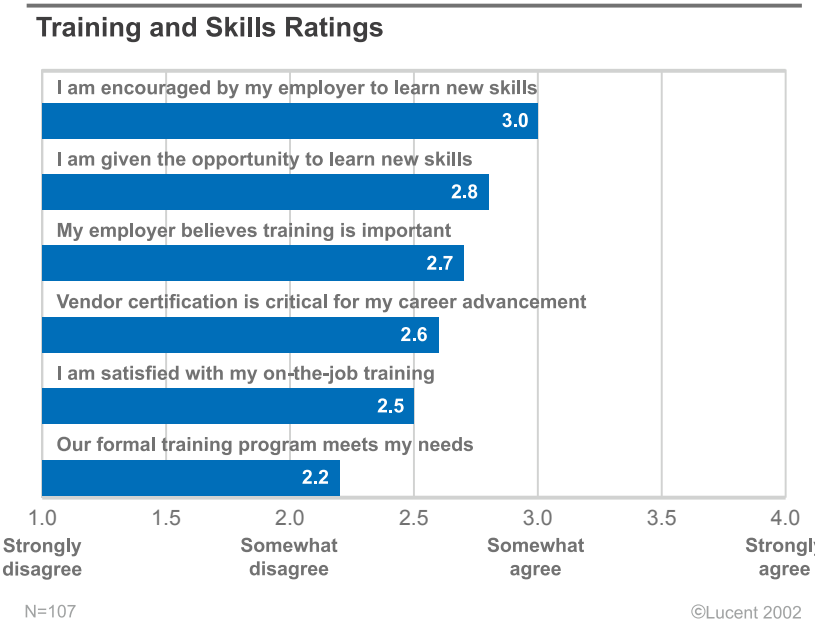
Training and Skills Ratings

As with previous surveys, a substantial majority of network professionals are encouraged by their employers to learn new skills, but only four in ten respondents agree that formal training programs being offered meet their professional needs. Moreover, only a little more than half (55 percent) of respondents are satisfied with the on-the-job training they receive. Vendor certification is considered a critical training goal by more than half of respondents.

Despite concerns over the adequacy of formal and on-the-job training programs, 63 percent of respondents believe their employers consider training important, and 66 percent say they are given the opportunity to learn new skills. There seems to be, however, a discontinuity between the value employers place on the learning of new skills and the actual training they provide.

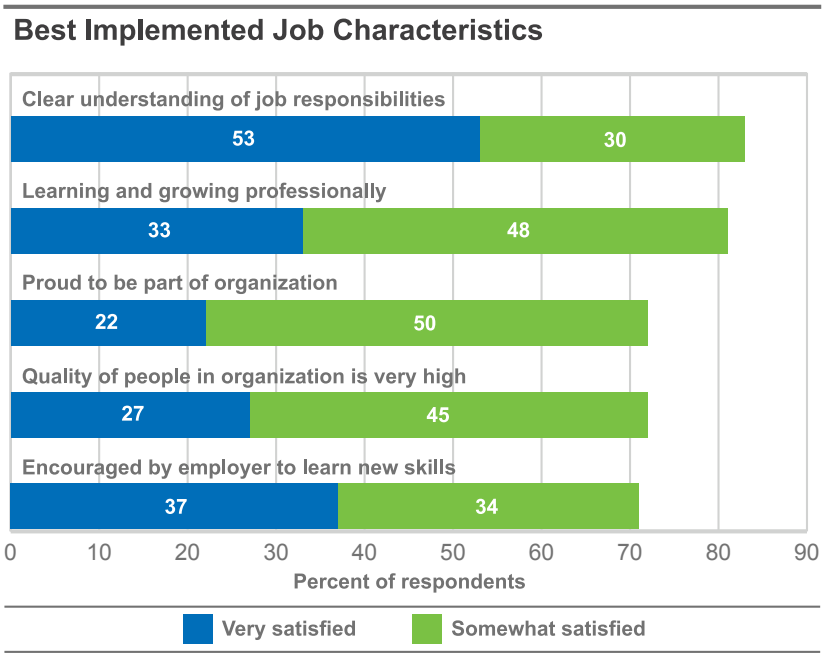


Best and Worst Job Characteristics

The consistency in ratings respondents gave over the past four years to our survey questions about training and skills, job performance, reward systems, work experience, and work environment reinforces their validity as true reflections of network professionals' views on job satisfaction, and pinpoints those areas that need more attention in the years to come. Looking at all five categories, we selected those job characteristics that the largest percentage of respondents agree with, and those with the highest level of disagreement.

First, on a positive note, more than half of respondents strongly agree that they have a clear understanding of their job responsibilities (53 percent), while another 30 percent somewhat agree with that statement. A large percentage (81 percent) also agree that they are learning and growing professionally. These results are both consistent with the 2001 survey.

The remaining three best-implemented job factors all show an improvement over the 2001 survey, with an average increase of six percentage points in the percentage of respondents who agree with each statement.



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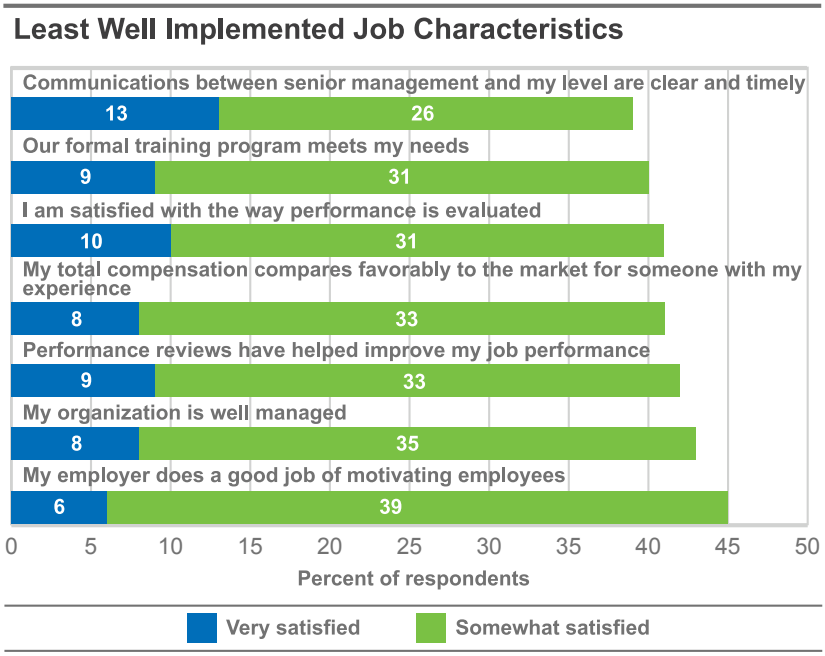
On the flip side of the coin, the least well-implemented job characteristics point to factors that IT managers need to focus on improving. Only 39 percent of respondents say that the communications between senior management and their level are clear and timely. And while a higher percentage (45 percent) believe that their employers do a good job of motivating employees, only six percent strongly agree with that statement.

Another area in which more effort is required is performance evaluation. Less than half of respondents are satisfied with the way their performance is evaluated or feel that performance reviews have helped them improve their job performance. This shortcoming for such a large percentage of respondents should weigh heavily on the shoulders of IT managers.

In summary, companies can rightly feel proud about those job satisfaction factors where respondents feel they're doing a good job. However, communications – both from senior management and on performance – is clearly an area that can and should be improved dramatically.



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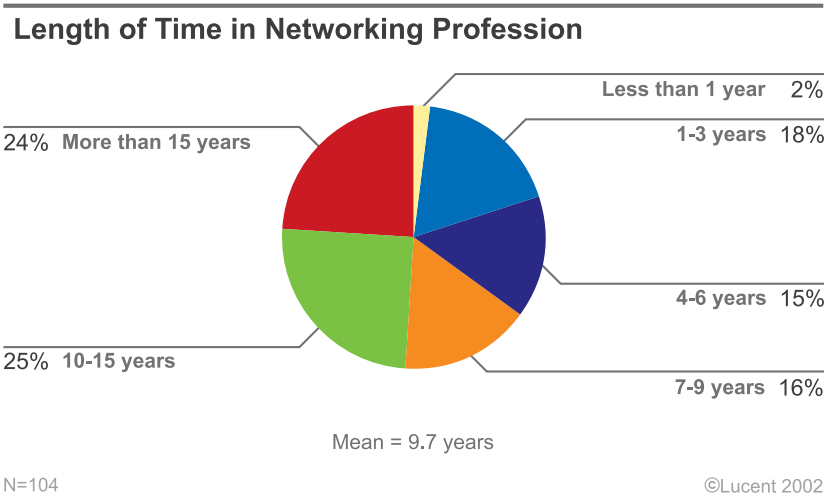
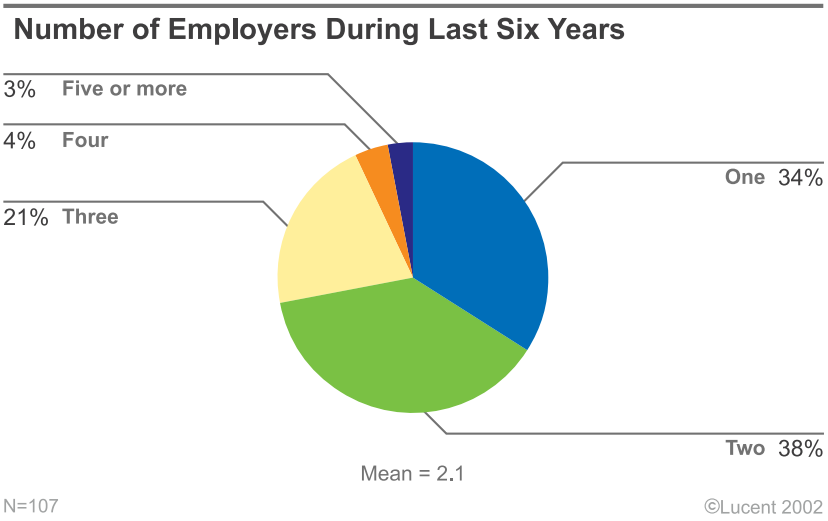
Respondent Demographics

In this survey, nearly half (49 percent) of respondents have been employed in the networking profession for 10 years or more, and only one out of five has fewer than four years experience. This reverses a trend of the last several years, in which the percentage of respondents with fewer than four years experience was increasing. Most of this reversal can be attributed to the percentage of respondents on the job less than one year, which declined from 14 percent in 2001 to only two percent this year. The obvious explanation for this reversal is that the market for network professionals has slowed dramatically, thus limiting the opportunity for entrance into the profession.

During the last six years, the typical respondent has had two employers. This result reflects a decrease in "job hopping" from 2001 and 2000, which showed an average number of jobs of 2.4 and 2.5 respectively. Again, market conditions have affected job behavior.

About two-thirds of survey respondents have been employed at more than one organization over a six-year period, a decline of 13 percent. Viewed from another angle, more than two-thirds (72 percent) of respondents have had only two employers during this period, reflecting more stability in the market.



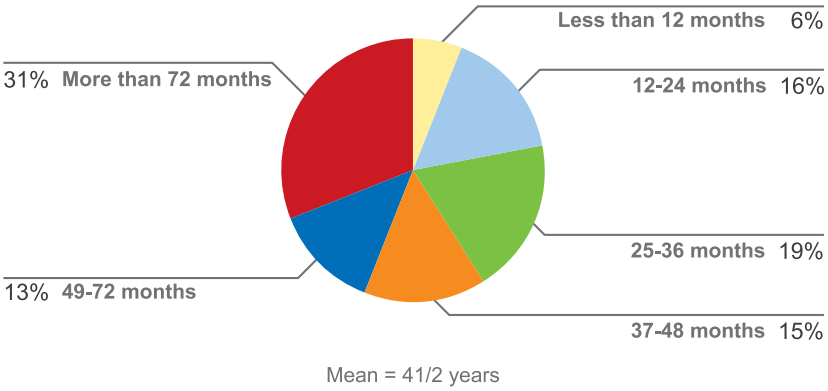


During the last six years, the typical respondent has had two employers.

Again reflecting the increased stability in the market, the percentage of respondents who have been with their current employers more than four years jumped sharply from 23 percent in 2000 and 24 percent in 2001 to 44 percent this year. The average length of time with respondents' current employers also jumped dramatically, from approximately two-and-a-half years in 2000 and 2001 to four-and-a-half years in 2002.

Slightly less than one in five respondents works for a small company (less than 100 employees), while 22 percent work for very large companies (20,000 or more employees).

Length of Time with Current Employer



Mean = 41/2 years

N=106

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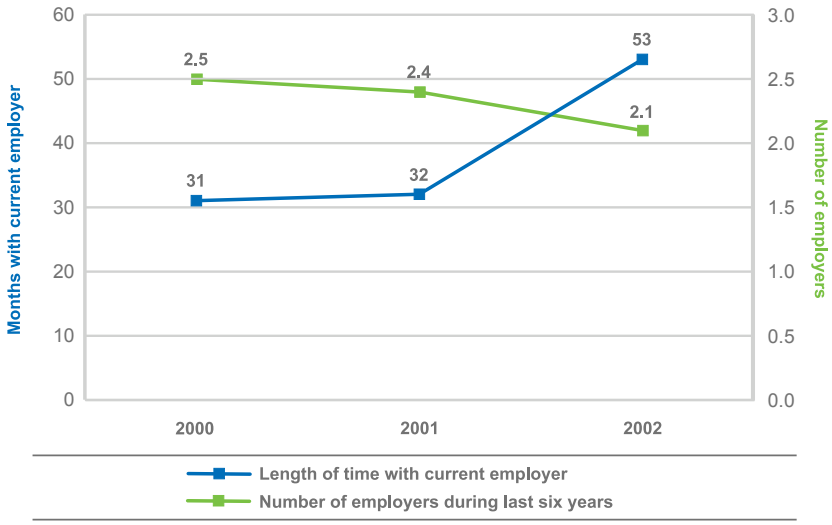
Employment Trends



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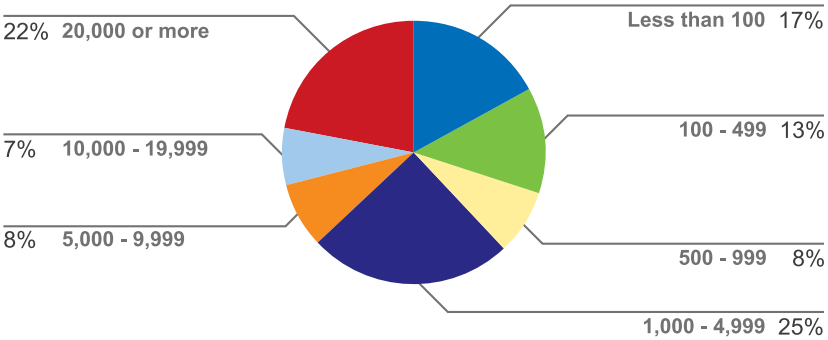
Respondents' Companies' Size (Employees)



N=105

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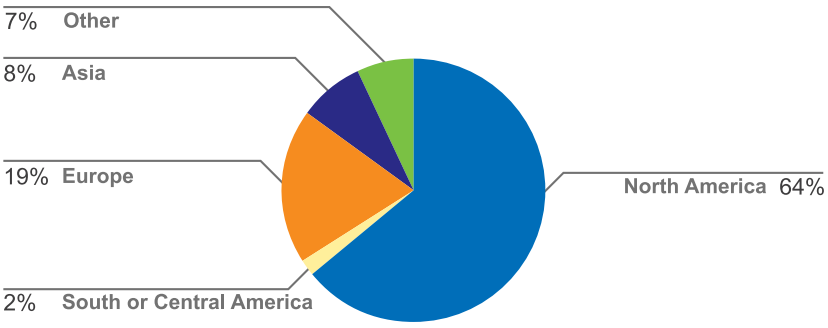
Sixty-four percent of respondents are located in North America, while Europe (19 percent) and Asia (8 percent) account for most of the remaining respondents.

Survey respondents represent a fairly broad cross-section of industries, led strongly by vendors of telecom/computer services, which represents 35 percent of respondents. Other industries well represented include telecom/computer manufacturer (12 percent), government/education/non-profit (11 percent), financial services/insurance/legal (10 percent), and manufacturing/pharmaceuticals (9 percent).

Respondents' Locations



N=105

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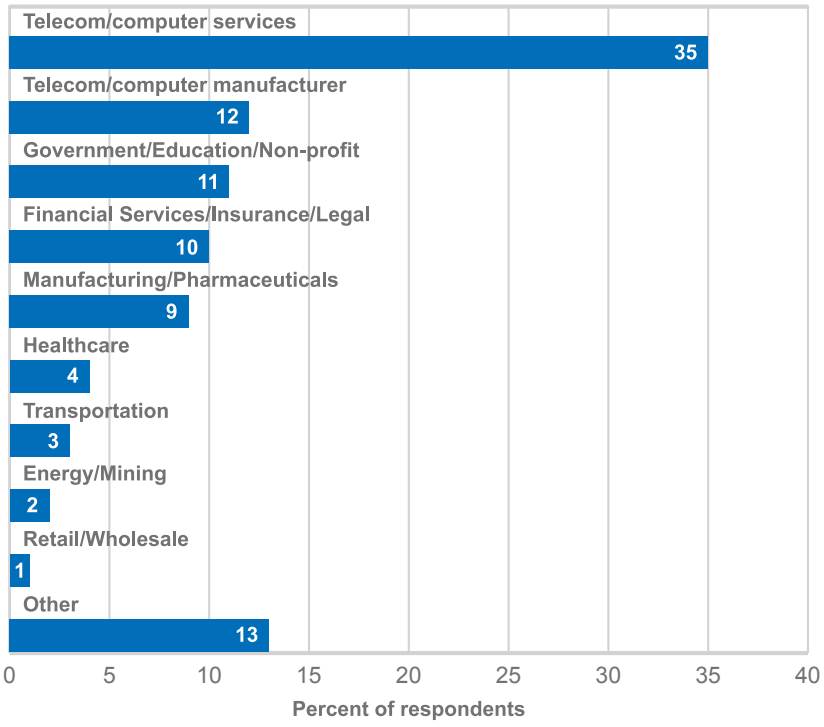
Respondents' Industries



N=107

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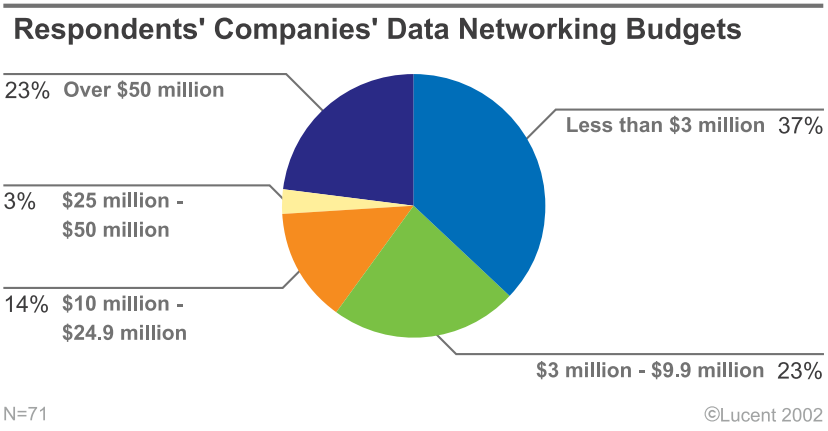
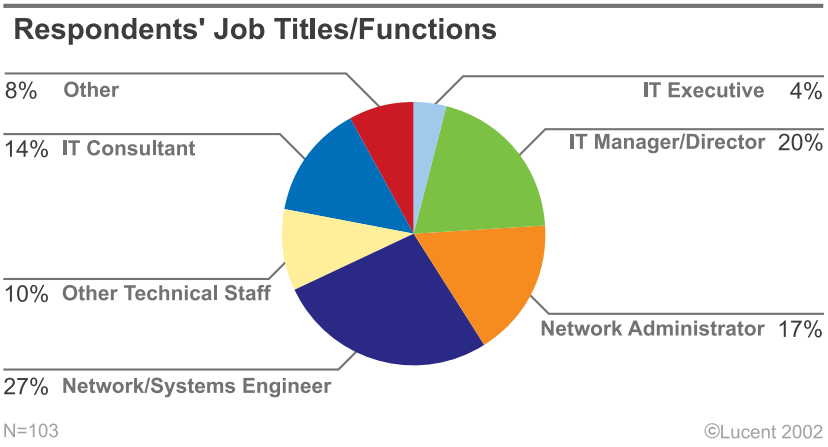
More than one in five respondents' companies have a data networking budget in excess of $50 million, while another 37 percent have budgets under $3 million. The majority of companies represented work with budgets under $10 million.

The highest percentage of respondents' job title/function was network/systems engineer (27 percent), followed by IT manager/director (20 percent), network administrator (17 percent), and other technical staff (10 percent).





Respondent Comments

- *I like the fact that I am given a large amount of responsibility and am given the latitude to use my judgment and expertise the way I see fit…*
- *I want to find (respect) from my job. I think this is the most important factor.*
- *Job satisfaction is… dependent on some basic factors, like work culture, market pay rate, etc.*
- *My company is so traditional that I can't display my ability freely.*
- *There is a growing need to move away from basic telecom infrastructure knowledge to an appreciation of how the telecom components fit an end-to-end service. This provides a good opportunity to learn new skills*

Methodology

This survey was conducted over the World Wide Web from January 19, 2002 to February 28, 2002 at: **http://www.lucentservices.com/surveys**.

All Web survey responses were automatically collected into a survey tool. Any questions skipped or incorrectly answered by survey respondents were not included in the tabulations. Not-applicable responses were also not included in the tabulations. Each chart includes the number of valid responses for that particular question (e.g., N=100 indicates 100 responses). Percentages shown in charts may not equal 100 percent due to rounding.

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