# SAGE <br> <br> ANNUAL <br> <br> ANNUAL <br> <br> SALARY <br> <br> SALARY SURVEY SURVEY <br> <br> FOR 2007 

 <br> <br> FOR 2007}


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## Introduction

The SAGE salary survey is a primary component of the efforts to advance the status of system administration as a profession and establish standards of professional excellence. The salary survey also serves individual sysadmins, managers, and HR departments in comparing their practices with those of other companies.
This survey was sponsored by SAGE, a Special Interest Group of the USENIX Association, whose goal is to advance the state of system administration, and IBM, provider of commercial IT solutions.
The salary survey for the year 2007 was administered during November, 2007 through July, 2008 and garnered 891 valid responses: 814 individuals employed for half the year or more and 77 employed less than that. This first part of this document analyzes those employed for more than half the year; the unemployment survey follows on the final pages.
This report includes a large section on demographics, the qualities of the respondents. That section is followed by extensive statistical analyses of salaries, distribution, salary increases. Breakdowns include by geography, gender, and experience. The final part of the employment survey includes several pages of respondents' comments on the state of the profession, the future of system administration, and advice to newcomers.

## A Note on Nomenclature

This year's survey generated little contention about the term 'system administrator.' It appears that the term, with the generic position it represents, is finally coming into mainstream use.

## Summary

Of the 814 valid respondents, $86.6 \%$ were men while $13.4 \%$ were women (vs. 2006: $96.1 \%$ men; 2004-2005: $96.2 \% ; 2003: 95.4 \% ; 2002: 93.0 \% ; 2001: 88.4 \%$ ). This survey has a higher percentage of women than any other salary survey SAGE has sponsored.
$88.5 \%$ of the individuals worked 35 or more hours weekly (vs. 2006: $93.8 \%$ ). $11.5 \%$ worked less than 35 hours/week. These are the same percentages as respondents reported for 'fulltime' vs. 'part-time.'
The set of respondents broke out into several different types of jobs: Databases, Desktop, Generalist, Help Desk, Networking, People Management, Project Management, Security, Server Management, Technical Lead, and 'Other.' The chart below shows the breakdown of the responses. The 'Other' category notably included a few folks who mentioned 'All' and 'Generalist.'

Sysadmin Focus


## Statistical Exclusions

The few respondents who cited salaries greater than US\$200,000 are excluded from most of the analyses throughout this document. These salaries significantly impact the calculation of statistical means (averaging in a salary like one million dollars has a big impact on statistics unless you divide it by another huge number) and thus have generally been omitted from reporting (most seem to be from reporting the salary in some currency besides US dollars but failing to note that circumstance). Likewise, the few with annual salaries less than US $\$ 10,000$ are generally omitted, as they must reflect some compensation scheme outside the mainstream (or, more often, reflect hourly or monthly rates rather than annualized).
After analyzing the data extensively, it became clear that the statistics of interest pertained to the salaries companies were paying, a number that is often more than the amount of money people received (since many people were unemployed for weeks or even months). Accordingly, all reported salaries have been annualized (e.g., a reported US $\$ 25,000$ for 26 weeks annualizes to US $\$ 50,000 /$ year) and, except where mentioned, all salaries have been converted to US dollars when statistical aggregates are used. Salaries are reported in native currencies when appropriate.

## Highlights

In these economically uncertain times, the average of all the salary changes (including the negative ones) for 2006-2007 across full-time work world-wide was 6.65\% (2005-2006: 5.43\%; 2004-2005: 6.12\%; 2003: 10.68\%; 2002: $8.15 \%$ ) when calculated for annualized salaries. 90 ( $17.1 \%$ ) respondents (2005-2006: 24.1\%; 2004-2005: $24.1 \% ; 2003: 23.2 \% ; 2002: 24.0 \%$ ) saw no salary change or had their salary reduced. Of the $82.9 \%$ (slightly down from 2005-2006: 83.5\%; 2004-2005: 75.9\%; 2003: 68.8\%; 2002: 54.5\%) who saw their salaries increase $0.001-30 \%$, the mean increase was $8.80 \%$ (up from 2005-2006: 7.4\%; 2004-2005: 9.15\%; down from 2003-2004: $10.95 \%$ and 2002: 8.88\%).

The mean reported salary for the 449 respondents who reported using US dollars as their currency was $\$ 78,995$ (vs. 2005-2006: $\$ 75,612 ; 2004-2005$ : $\$ 68,045 ; 2003$ : $\$ 66,557 ; 2002$ : $\$ 67,675$ ). For men, the mean salary was $\$ 80,094$ (vs. 2005-2006: $\$ 75,667 ; 2004-2005$ : $\$ 68,195 ; 2003-2004: \$ 66,612 ; 2002: \$ 67,920$ ). For the statistically very small sample size of 43 women, the mean was $\$ 68,613$, no longer the same as men (vs. last year); this average was down from 2005-2006: $\$ 74,999 ; 2004-2005$ : $\$ 64,016 ; 2003-2004: \$ 65,432 ; 2002: \$ 64,946$. The overall median was $\$ 76,000$ (2005-2006: $\$ 73,000 ; 2004-2005: \$ 64,000 ; 2003-2004: \$ 62,500 ; 2002: \$ 65,000)$. The median for the small sample of women was $\$ 65,000$ (down from 2005-2006's $\$ 74,000$; 2004-2005: $\$ 60,500$; 2003-2004: $\$ 65,000 ; 2002: \$ 63,000$ ). Please note, these numbers do not factor in experience and therefore should not be used as a general comparison of anything. However, because this report endeavors to enable you to find how your salary compares to people who have both similar and different backgrounds, we have included analysis which will enable you to make more accurate comparisons based on experience, education, job title, and SAGE Sysadmin Classification.

We hope you find the following information useful, and we encourage you to participate in next year's survey.

## Demographics

814 individuals completed valid employment surveys this year (plus 77 more who completed the 'unemployment' survey; see the final pages of this document). They completed a comprehensive questionnaire on the World Wide Web with over 80 questions, including:

| - Age | - Home Internet | - Recent pay increases |
| :--- | :--- | :--- |
| - Benefits | - Hours worked | - SAGE admin level |
| - Certifications | - Hours training | - Salary \& bonuses |
| - Commute time | - Industry | - Supervisory duties |
| - Corporate policies | - Job type | - Technical associations |
| - Education | - Length of employment | - Telecommuting |
| - Employers | - Location | - Time off |
| - Experience | - Longevity projections | - Title |
| - Focus | - Pager/cell phone requirements | - Training methodologies |
| - Gender | - Proressional organizations | - Travel |
| - General comments |  |  |

## Age and Experience

It has been said that system administration is a young person's game. The pie chart on the right shows the concentration of admins in various age groups. Only $33.7 \%$ (vs. 2005-2006: 30.8\%; 2004-2005: $45.2 \%$ ) of the respondents were under 30 years of age; $24.0 \%$ (vs. 2005-2006: 28.0\%; 2004-2005: 15.0\%) were 40 years of age or older. As the field matures, it's clear that admins are covering the entire age spectrum ever more fully.
The table below compares experience and age. Over $16.3 \%$ of respondents (vs. 2006-2007: 18.6\%; 2005-2006: 18.6\%; 2004-2005: 12.2\%) entered the field at age 30 or later. This chart has its columns normalized to $100 \%$ for easy comparison. Percentages are of 681 valid geographical regions.

|  | Age VS. Years Experience |  |  |  |  |  |  |
| :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Age | $\mathbf{0 . 3}$ | $\mathbf{4 . . 5}$ | $\mathbf{6 . . 9}$ | $\mathbf{1 0 . . 1 5}$ | $\mathbf{1 6 . . 2 0}$ | $\mathbf{2 1 +}$ | Total |
| 0.24 | $33.1 \%$ | $20.0 \%$ | $2.6 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $8.2 \%$ |
| 25.29 | $39.4 \%$ | $55.0 \%$ | $41.8 \%$ | $7.7 \%$ | $0.0 \%$ | $0.0 \%$ | $25.4 \%$ |
| 30.34 | $16.5 \%$ | $19.0 \%$ | $35.1 \%$ | $34.2 \%$ | $3.0 \%$ | $0.0 \%$ | $24.9 \%$ |
| 35.39 | $5.5 \%$ | $4.0 \%$ | $11.9 \%$ | $30.9 \%$ | $34.3 \%$ | $1.9 \%$ | $17.4 \%$ |
| $40 . .44$ | $1.6 \%$ | $0.0 \%$ | $6.2 \%$ | $13.6 \%$ | $29.9 \%$ | $27.8 \%$ | $10.6 \%$ |
| 45.49 | $2.4 \%$ | $2.0 \%$ | $2.1 \%$ | $7.7 \%$ | $14.9 \%$ | $29.6 \%$ | $6.9 \%$ |
| $50+$ | $1.6 \%$ | $0.0 \%$ | $0.5 \%$ | $5.9 \%$ | $17.9 \%$ | $40.7 \%$ | $6.5 \%$ |
| Total | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ |

Age


Age Entering Field


Subtracting years of experience in the field of system administration from the respondent's age can lead to a rough approximation of the age they entered the field (though obviously some respondents might have been sysadmins for a while then changed careers and later changed back). The lower of the two charts above shows the results of such an estimation.

## Geographies Represented

Respondents were located throughout the world, though only the USA and perhaps South Africa and Canada had enough data for true statistical validity of any results.

A number in square brackets (e.g., [3]) denotes an absolute number of respondents that is less than one percent of the total of those who named a country.

| Sysadmins Around the World |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Country | \% Resp | Country | \% Resp | Country | \% Resp | Country | \% Resp |
| United States | 60.3\% | Argentina | [4] | Finland | [2] | Cyprus | [1] |
| South Africa | 6.5\% | France | [4] | Hungary | [2] | Denmark | [1] |
| India | 6.3\% | Japan | [4] | Iran | [2] | France, Metro | [1] |
| Canada | 3.6\% | Norway | [4] | Korea (South) | [2] | Ghana | [1] |
| UK | 2.5\% | China | [3] | Mexico | [2] | Jordan | [1] |
| Australia | 2.3\% | Israel | [3] | Nigeria | [2] | Luxembourg | [1] |
| Germany | 1.7\% | Kuwait | [3] | Philippines | [2] | Oman | [1] |
| Ireland | 1.4\% | New Zealand | [3] | Romania | [2] | Peru | [1] |
| Malaysia | 1.1\% | Pakistan | [3] | Russia | [2] | Serbia | [1] |
| Switzerland | [7] | Singapore | [3] | Slovenia | [2] | Sweden | [1] |
| Egypt | [6] | Spain | [3] | Antigua \& Barbuda | [1] | Ukraine | [1] |
| Portugal | [6] | Zimbabwe | [3] | Bangladesh | [1] | United Arab Emirates | [1] |
| Czech Republic | [5] | Angola | [2] | Brazil | [1] |  |  |
| \|taly | [5] | Austria | [2] | Colombia | [1] |  |  |
| Netherlands | [5] | Bulgaria | [2] | Croatia | [1] |  |  |

## Titles

Respondents were asked to share their position's title (i.e., as shown on their business card). 810 actual titles contained 273 (vs. 2005-2006: 228; 2004-2005: 400; 2003: 437; 2002: 688) distinct words. The average actual title was 21.5 characters (vs. 2005-2006: 21.5; 2004-2005: 21.8; 2003: 21.6) long with 2.64 words (vs. 2005-2006: 2.81; 2004-2005: 2.62; 2003: 2.74; 2002: 3.72). 3.4\% (2005-2006: 4.1\%; 2004-2005: 3.3\%; 2003: $4.7 \%$ ) of the titles had multiple functions separated by a slash; only one had more than one slash.

This year's most popular word was again

Title Words

| Freq. | Word |  | Freq. | Word | Freq. | Word |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $41.4 \%$ | Systems (etc.) | $3.0 \%$ | Technical | $1.5 \%$ | Team |  |
| $36.3 \%$ | Administrator (etc.) | $2.8 \%$ | Support | $1.5 \%$ | Security |  |
| $17.7 \%$ | Senior | $2.6 \%$ | Lead | $1.5 \%$ | Programmer |  |
| $13.3 \%$ | Manager | $2.6 \%$ | Architect | $1.5 \%$ | Information |  |
| $11.5 \%$ | Engineer | $2.2 \%$ | Director | $1.4 \%$ | Linux |  |
| $9.0 \%$ | IT | $2.2 \%$ | Consultant | $1.4 \%$ | $2 / I I$ |  |
| $8.6 \%$ | Unix | $1.9 \%$ | Operations | $1.1 \%$ | HR |  |
| $5.2 \%$ | Network | $1.7 \%$ | Software | $1.1 \%$ | Computer |  |
| $5.0 \%$ | Specialist | $1.6 \%$ | Infrastructure | $1.1 \%$ | $3 / I I I$ |  |
| $4.7 \%$ | Analyst | $1.6 \%$ | Assistant |  |  |  | 'system' (in incarnations that included 'systems' and 'sys'), appearing in 44.0\% of the titles (vs. 2005-2006: 44.2\%; 2004-2005: 41.7\%; 2003: 40.1\%) of the titles. This year's runner-up was, again, 'administrator' with $39.2 \%$ of the titles (vs. 2005-2006: 36.9\%; 2004-2005: 35.6\%; 2003: 34.5\%). Some $10.6 \%$ of the titles contained the word 'UNIX' or 'Linux' (vs. UNIX at 9.9\% 2005-2006 and 2004-2005: 7.2\%).

A few years ago, the word 'administrator' carried the connotation of secretary. It appears that infrastructure support employees are now using the word with high frequency.
The table above on the right shows all the words that appeared in $1 \%$ or more of the titles.

## Supervisory Capacity

About $63 \%$ of the respondents reported informal supervisory capacity at some level; over a quarter ( $35.2 \%$ ) had formal supervisory capacity. These charts hint at the level of mentoring in the profession.

Informal Subordinates


Formal Subordinates


## Purchasing Responsibility

A quarter of respondents have no spending/purchasing responsibility. The charts below and on the next page show purchasing responsibilities for all the sub-disciplines. Not surprisingly, a different focus brings different responsibilities.

|  | Generalist |  |  |  | Help desk |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Pune | Contrib | Specify | Final | None | Contrib | Specify | Final |  |
| Purchasing of items less than US $\$ 500$ | $17.4 \%$ | $6.0 \%$ | $37.6 \%$ | $38.9 \%$ | $53.8 \%$ | $15.4 \%$ | $15.4 \%$ | $15.4 \%$ |
| Purchasing of items US $\$ 500-U S \$ 5000$ | $16.8 \%$ | $14.1 \%$ | $56.4 \%$ | $12.8 \%$ | $61.5 \%$ | $15.4 \%$ | $23.1 \%$ | $0.0 \%$ |
| Purchasing of items more than US $\$ 5000$ | $21.5 \%$ | $24.8 \%$ | $47.7 \%$ | $6.0 \%$ | $61.5 \%$ | $30.8 \%$ | $7.7 \%$ | $0.0 \%$ |
| Budget for your working group | $35.6 \%$ | $36.2 \%$ | $24.2 \%$ | $4.0 \%$ | $69.2 \%$ | $15.4 \%$ | $7.7 \%$ | $7.7 \%$ |
| Budget for the IT/Computer services department | $40.9 \%$ | $32.9 \%$ | $21.5 \%$ | $4.7 \%$ | $53.8 \%$ | $30.8 \%$ | $7.7 \%$ | $7.7 \%$ |


|  | Security |  |  |  | Networking |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Purch. Resp. | None | Contrib | Specify | Final | None | Contrib | Specify | Final |
| Purchasing of items less than US $\$ 500$ | $36.0 \%$ | $12.0 \%$ | $32.0 \%$ | $20.0 \%$ | $30.3 \%$ | $6.1 \%$ | $27.3 \%$ | $36.4 \%$ |
| Purchasing of items US $\$ 500-$ US $\$ 5000$ | $32.0 \%$ | $16.0 \%$ | $36.0 \%$ | $16.0 \%$ | $39.4 \%$ | $12.1 \%$ | $36.4 \%$ | $12.1 \%$ |
| Purchasing of items more than US $\$ 5000$ | $44.0 \%$ | $16.0 \%$ | $32.0 \%$ | $8.0 \%$ | $36.4 \%$ | $21.2 \%$ | $36.4 \%$ | $6.1 \%$ |
| Budget for your working group | $56.0 \%$ | $24.0 \%$ | $16.0 \%$ | $4.0 \%$ | $60.6 \%$ | $21.2 \%$ | $12.1 \%$ | $6.1 \%$ |
| Budget for the IT/Computer services department | $68.0 \%$ | $20.0 \%$ | $8.0 \%$ | $4.0 \%$ | $54.5 \%$ | $27.3 \%$ | $12.1 \%$ | $6.1 \%$ |


|  | Server management |  |  |  | Databases |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purch. Resp. | None | Contrib | Specify | Final | None | Contrib | Specify | Final |
| Purchasing of items less than US\$500 | 27.0\% | 14.8\% | 38.2\% | 20.1\% | 57.1\% | 17.9\% | 10.7\% | 14.3\% |
| Purchasing of items US $\$ 500-$ US $\$ 5000$ | 29.6\% | 19.7\% | 42.1\% | 8.6\% | 60.7\% | 17.9\% | 14.3\% | 7.1\% |
| Purchasing of items more than US $\$ 5000$ | 32.2\% | 25.0\% | 38.2\% | 4.6\% | 67.9\% | 25.0\% | 3.6\% | 3.6\% |
| Budget for your working group | 48.7\% | 32.6\% | 15.8\% | 3.0\% | 67.9\% | 25.0\% | 0.0\% | 7.1\% |
| Budget for the IT/Computer services department | 55.6\% | 30.9\% | 11.5\% | 2.0\% | 67.9\% | 25.0\% | 0.0\% | 7.1\% |


|  | People management |  |  |  | Technical lead |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purch. Resp. | None | Contrib | Specify | Final | None | Contrib | Specify | Final |
| Purchasing of items less than US\$500 | 22.2\% | 5.6\% | 8.3\% | 63.9\% | 28.1\% | 12.5\% | 39.6\% | 19.8\% |
| Purchasing of items US $\$ 500-\mathrm{US} \$ 5000$ | 25.0\% | 13.9\% | 13.9\% | 47.2\% | 31.2\% | 15.6\% | 42.7\% | 10.4\% |
| Purchasing of items more than US\$5000 | 27.8\% | 13.9\% | 22.2\% | 36.1\% | 33.3\% | 19.8\% | 42.7\% | 4.2\% |
| Budget for your working group | 25.0\% | 16.7\% | 16.7\% | 41.7\% | 46.9\% | 31.2\% | 17.7\% | 4.2\% |
| Budget for the IT/Computer services department | 25.0\% | 30.6\% | 16.7\% | 27.8\% | 55.2\% | 26.0\% | 13.5\% | 5.2\% |


|  | Project management |  |  | Desktop |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Purch. Resp. | None | Contrib | Specify | Final | None | Contrib | Specify | Final |
| Purchasing of items less than US $\$ 500$ | $35.7 \%$ | $11.9 \%$ | $16.7 \%$ | $35.7 \%$ | $33.3 \%$ | $33.3 \%$ | $25.0 \%$ | $8.3 \%$ |
| Purchasing of items US $\$ 500-U S \$ 5000$ | $38.1 \%$ | $9.5 \%$ | $28.6 \%$ | $23.8 \%$ | $41.7 \%$ | $33.3 \%$ | $25.0 \%$ | $0.0 \%$ |
| Purchasing of items more than US $\$ 5000$ | $35.7 \%$ | $21.4 \%$ | $26.2 \%$ | $16.7 \%$ | $58.3 \%$ | $25.0 \%$ | $16.7 \%$ | $0.0 \%$ |
| Budget for your working group | $40.5 \%$ | $23.8 \%$ | $19.0 \%$ | $16.7 \%$ | $66.7 \%$ | $33.3 \%$ | $0.0 \%$ | $0.0 \%$ |
| Budget for the IT/Computer services department | $42.9 \%$ | $23.8 \%$ | $16.7 \%$ | $16.7 \%$ | $75.0 \%$ | $25.0 \%$ | $0.0 \%$ | $0.0 \%$ |


|  | Storage |  |  |  | Other |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purch. Resp. | None | Contrib | Specify | Final | None | Contrib | Specify | Final |
| Purchasing of items less than US\$500 | 57.1\% | 0.0\% | 28.6\% | 14.3\% | 46.8\% | 6.5\% | 21.0\% | 25.8\% |
| Purchasing of items US $\$ 500-$ US $\$ 5000$ | 71.4\% | 7.1\% | 21.4\% | 0.0\% | 46.8\% | 12.9\% | 24.2\% | 16.1\% |
| Purchasing of items more than US\$5000 | 64.3\% | 14.3\% | 21.4\% | 0.0\% | 51.6\% | 16.1\% | 21.0\% | 11.3\% |
| Budget for your working group | 57.1\% | 35.7\% | 7.1\% | 0.0\% | 56.5\% | 11.3\% | 21.0\% | 11.3\% |
| Budget for the IT/Computer services department | 71.4\% | 14.3\% | 7.1\% | 7.1\% | 61.3\% | 14.5\% | 16.1\% | 8.1\% |

## SAGE Sysadmin Classifications

Respondents were asked to self-assess the responsibilities of their primary job in order to show the mappings with the SAGE job levels. Fully $6.1 \%$ of them felt their job did not fit within the proper parameters. The remainder classified themselves according to these definitions. The number of SAGE Level 1 respondents was very low while almost half (46.1\%) self-assessed at SAGE Level 3.

SAGE Level 1: Assist on consulting or engineering projects or the administration of a systems facility. Perform routine tasks under the direct supervision of a more experienced system administrator or consultant.

SAGE Level

 May act as a front-line interface to users and senior system administrators.
SAGE Level 2: Assist on consulting or engineering projects or the administration of a systems facility. Work under general supervision of a computer system manager or senior consultant. Carry out more complex tasks with some independence and discretion regarding how to carry out the tasks.
SAGE Level 3: Receive general instructions for assignments from manager and work with independence and discretion regarding how to carry out tasks. Initiate some new responsibilities and help to plan for the future of a facility. Manage the work of junior system administrators, operators, engineers, or consultants. Evaluate and/or recommend purchases and have a strong influence on the purchasing process.
SAGE Level 4: Design and manage the computing infrastructure or manage the larger, more complex consulting or engineering projects. Work under general direction from senior management. Establish or recommend policies on system use and services. Provide technical lead and/or supervise system administrators, system programmers, engineers, consultants, or others of equivalent seniority. Have purchasing authority and responsibility for purchase decisions and budget.

## Unemployment

8.2\% (vs. 2005-2006: 8.4\%; 2004-2005: 11.2\%; 2003: 10.9\%) of the respondents who were generally employed during the last year were unemployed for at least one week during the survey period. Of those 73 individuals, $42.5 \%$ (vs. 2005-2006: 45.2\%; 2004-2005: 4.5\%; 2003: 3.3\%) were unemployed for four weeks or less; only $11.05 \%$ (vs. 2005-2006: 16.6\%) were unemployed for 15 weeks or more.

## Certifications

Only $47.8 \%$ of respondents claimed to hold a certification "that was valuable to them". The mean number of "valuable" certifications held was only $1.4 \% ; 6.0 \%$ of respondents held 5 or more "valuable" certifications.

## Unemployment Distribution

 Number of Certifications


## Experience

Respondents had a mean of 9.74 (2005-2006: 10.08; 2004-2005: 7.91; 2003: 8.01; 2002: 7.83) years of experience, with a standard deviation of 6.3 years (almost the same as the three previous years). The median was 9 years, same as 2005-2006 but up two years since 2004-2005, 2003, and 2002). About $48.3 \%$ had ten years or more of experience; $19.7 \%$ had 15 or more years of experience (vs. 2005-2006: 20.9\%; 2004-2005: 11.8\%; 2003: $11.8 \% ; 11.7 \%$ in 2002). Two charts summarize the experience levels of the respondents. About 21.3\% (up from 2005-2006: 13.5\%) have less than five years of experience.
The detail graph shows an almost bell curvelike distribution with a serious peak at ten years. Curiously, until last year the last previous three years' charts all had a peak at five years. The detailed graph implies a number of people entered the field 5-10 years ago, and that the number entering or staying in the field is now declining (though the sample size and self-selection probably prohibit drawing any conclusions). This has been a consistent trend, though.
In past years, the gender chart (shown below on the right) implied (more strongly than this one does) that women stay in the field longer than men. Only the data for $15 . .19$ years supports this notion with any strength these days. No conclusions are possible, though, since the sample size for women is so very small.

Years of Experience



| Exp. VS. Gender |  |  |  |
| :---: | ---: | ---: | ---: |
| Exp. | Female | Male | Total |
| 0 | $2.8 \%$ | $2.0 \%$ | $2.1 \%$ |
| 1.4 | $27.5 \%$ | $17.9 \%$ | $19.2 \%$ |
| 5.9 | $24.8 \%$ | $31.3 \%$ | $30.5 \%$ |
| 10.14 | $28.4 \%$ | $28.7 \%$ | $28.6 \%$ |
| 15.19 | $5.5 \%$ | $10.9 \%$ | $10.2 \%$ |
| 20.24 | $5.5 \%$ | $6.5 \%$ | $6.4 \%$ |
| 25.29 | $5.5 \%$ | $1.6 \%$ | $2.1 \%$ |
| $30+$ | $0.0 \%$ | $1.1 \%$ | $1.0 \%$ |
| Total | $100.0 \%$ | $100.0 \%$ | $100.0 \%$ |

## Education

Experience is often backed by education. About 59.1\% (vs. 2005-2006: 59.0; 2004-2005: 53.3\%; 2003: $57.6 \%$ ) of those responding have a college degree (at least a Bachelor's) in any field (see the chart on the right). Informal discussions at conferences yield the unsurprising results that those admins with degrees think college education is a real boon while the others argue, "I get along just fine without one."
The chart below shows the breakdown of subjects for post-secondary education.

Highest Educ. Achievement


## Post-HS Subjects



Highest Relevant Education


Some college degrees are arguably more relevant (in the technical sense) to computer administration. The second chart above on the right takes this into account and shows the highest 'relevant' degree (according to the respondent's definition of 'relevant'). Fully 40.6\% (vs. 2005-2006: 38.0\%; 2004-2005: $37.5 \%$ ) of those surveyed have earned at least a Bachelor's degree in a relevant field.
Most universities don't really teach system administration. How do people really learn system administration? Over $90 \%$ of them were able to attribute much of their knowledge to on-the-job training and/or self-instruction.

| Learning Styles |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Not at all | A bit | Somewhat | A lot |
| Taught myself (textbooks, web, practice, etc.) | 8.1\% | 4.3\% | 15.0\% | 72.6\% |
| On the job | 7.2\% | 3.8\% | 16.7\% | 72.2\% |
| Mentor of any kind | 34.6\% | 24.6\% | 24.1\% | 16.7\% |
| University/college education (CS/IS/IT degree program) | 42.4\% | 23.2\% | 21.6\% | 12.8\% |
| Vendor-specific training courses | 38.0\% | 28.3\% | 23.3\% | 10.4\% |
| Certification program courses | 48.0\% | 23.2\% | 19.4\% | 9.3\% |
| Conferences/commercial training | 42.4\% | 31.1\% | 20.5\% | 6.0\% |
| Non-degree tech school, college, or university courses | 71.7\% | 13.8\% | 10.2\% | 4.3\% |
| Military | 93.0\% | 2.7\% | 2.3\% | 2.0\% |
| Other | 97.5\% | 0.1\% | 0.9\% | 1.5\% |

## Relevant Education vs. Age

The Relevant Education chart is the rare chart that is probably better read starting at the bottom and moving up. In the past, the bottom three rows (finished college degrees in a relevant field) showed that only the younger members of the profession are indeed getting relevant education Of course, this correlated with the availability of such education - the first Bachelor's degree in computer science was given around 1974, so some of the $50+$ group never had a chance. Nowadays, though,

| Relevant Education VS. Age |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Education | $\mathbf{1 . 2 4}$ | $\mathbf{2 5 . 2 9}$ | $\mathbf{3 0 . 3 9}$ | $\mathbf{4 0 . . 4 9}$ | $50+$ | Total |
| Self-taught | $14.9 \%$ | $18.4 \%$ | $18.8 \%$ | $14.8 \%$ | $15.1 \%$ | $17.4 \%$ |
| In other fields | $7.5 \%$ | $4.3 \%$ | $8.4 \%$ | $9.9 \%$ | $15.1 \%$ | $8.0 \%$ |
| Technical Certificate(s) | $16.4 \%$ | $12.6 \%$ | $17.7 \%$ | $8.5 \%$ | $15.1 \%$ | $14.5 \%$ |
| Some College/Tech. School | $13.4 \%$ | $16.4 \%$ | $14.5 \%$ | $12.7 \%$ | $13.2 \%$ | $14.5 \%$ |
| Associate's Degree | $4.5 \%$ | $1.4 \%$ | $5.5 \%$ | $7.3 \%$ | $7.5 \%$ | $4.9 \%$ |
| Bachelor's Degree | $32.8 \%$ | $36.2 \%$ | $21.4 \%$ | $34.5 \%$ | $20.8 \%$ | $28.4 \%$ |
| Master's Degree | $10.4 \%$ | $9.7 \%$ | $12.8 \%$ | $9.9 \%$ | $11.3 \%$ | $11.2 \%$ |
| Ph.D.ID.Sc. | $0.0 \%$ | $1.0 \%$ | $0.9 \%$ | $2.1 \%$ | $1.9 \%$ | $1.1 \%$ | the number of admins with relevant university education ranges from $34.0 \%$ to $46.9 \%$, with just a bit of variance across the age groups. Several admins have Associate's degrees now, too.

## Continuing Education

In the world of computer administration, learning and growing are absolute requirements. Admins must keep up to date on a host of new technical and legal developments in their focus area and in 'soft' areas, as well.

The weekly expenditure of time for keeping up is quite dramatic (see the first chart on the right). The average is 8.5 hours/week (vs. 2005-2006: 8.7; 2004-2005: 9.2; 2003: 8.9; 2002: 9.0) and the standard deviation is 8.2 hours/week. This works out almost to a full day per week for ' 40 hour' workers. Only $31.4 \%$ report four hours or less per week; more than $38.6 \%$ report a staggering 10 hours or more per week. Just $3.4 \%$ reported 0 hours/week. It is clear that continued learning is de rigueur for this profession.

Organizations sometimes pay for continuing education for employees. 65.6\% of respondents (up from 2005-2006: 64.6\%; 2004-2005: 58.9\%; 2003: $60.3 \%$ ) were afforded this privilege. This might signal a growing recognition of the value of training by institutions. Even with the many zeroes averaged in, the mean number of training days annually was 5.14 (vs. 2005-2006: 4.6; 2004-2005: 4.8; 2003: 4.4) and the median was 4 (2005-2006: 4; 2004-2005: 3; 2003: 3). See the chart on the right for the breakdown.


Paid Training Days


## Industries Represented

Roughly 82.6\% (2006-2007: 84.0\%; 2004-2005: 83.2\%; 2003: 82.7\%) of the respondents work at a single job; $16.0 \%$ have multiple employers. Respondents were asked to cite their primary area of employment. Education led the way again; for some reason they come out in force for this survey every year. Over $95 \%$ were able to categorize their employment into a set of canonic industries.

| Employment Categories |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry | \% | Industry | \% | Industry | \% | Industry | \% |
| Education - College or University | 9.6\% | IT Company: Consulting | 4.5\% | Government Contracting | 2.2\% | Energy Production or Mining (oil, coal, etc.) | 1.2\% |
| IT Company: Other | 7.2\% | IT Company: ISPIASP | 4.4\% | Entertainment | 2.1\% | Travel/Recreation | 1.1\% |
| IT Company: Software Development | 6.4\% | Computer hard-ware/semiconductor | 3.3\% | Research | 1.8\% | Insurance/risk management | 1.1\% |
| Financial services (all kinds) | 6.1\% | Engineering | 2.6\% | Government -Non-Military | 1.7\% | Not-for-profit | 1.1\% |
| Telecommunications | 4.9\% | Consulting and Business Services | 2.5\% | Advertising, Public Relations, Communication, or Marketing | 1.7\% | Construction | 1.0\% |
| Other, please specify briefly | 4.9\% | Health Care, Medicine | 2.2\% | Retail | 1.5\% | Distribution/Warehousing | 1.0\% |
| Manufacturing | 4.9\% | IT Company: Web development/webmaster | 2.2\% | Services (other) | 1.5\% | Real Estate | 1.0\% |

Other industries (with less than $1 \%$ of the respondents) included: Aeronautical/aerospace [7], Chemical [7], Defense [7], Publishing [7], Architecture (buildings) [6], Automotive [6], IT Company: Security [6], GIS/cartography/mapping [6], Accounting [5], Transportation [5], Government - Military [5], Biotechnology [5], Legal [5], State or Local Government [5], VAR [4], Wholesale [3], Human resources/human capital/recruiter [3], Broadcasting/Cable/Video [3], Education - Elementary or Secondary [3], Pharmaceuticals [3], Utility [2], Hospitality [2], Environmental Services [2], Gambling/gaming/lottery [2], Agriculture [1], Education - Commercial, training, etc. [1], Library [1], Political [1], Religion [1], and Food [1].

## Organization Size

About $52.5 \%$ of respondents work in organizations with at least 1,000 people. One might expect this percentage to be even higher, since such organizations employ the vast majority of admins. $21.7 \%$ work in organizations with fewer than 100 employees.

## Organization Size



## Travel

Only 51.1\% (vs. 2005-2006: 45\%; 2004-2005: 53.3\%; 2003: $55.4 \% ; 2002: 53.7 \%$ ) of the respondents travel at all for their company (excluding conferences and training). About $23.3 \%$ travel more than two weeks per year. The pie chart on the right is a graphical representation of this data.

## Work Week Characterization

Sysadmins have perpetually complained about long work weeks. The survey asked how many hours per week each respondent worked. The graph on the right tells the tale (for those who worked 30 or more hours per week). About half ( $50.5 \%$ ) reported 44 or fewer hours per week; about half ( $49.4 \%$ ) reported 45 or more. Those reporting 60 hours or more numbered $5.5 \%$ (2005-2006: $5.3 \% ; 2004-2005: 10.1 \% ; 2003: 9.3 \%$ ). The reduction here might be real or might be a more realistic approach to counting work hours.

For full-timers, the average work week was 44.6 hours/week (down from 2005-2006: 44.7; 2004-2005: 45.6; 2003: 45.7; 2002: 46.7; 2001: 47.7). This is still more like nine hours per day instead of the the mythical "USA average eight hour day" (but it's getting closer). About $26.2 \%$ (vs. 2005-2006: 22.5\%; 2004-2005: 32.6\%; 2002: $27.8 \%$ ) of the respondents - over one in four - worked more than 50 hours/week ( 10 hours/day for a standard five-day work week).

## Commute Time

While over $9.2 \%$ of respondents commute (one way) for less than 10 minutes, 29.5\% (vs. 2005-2006: 26.7\%; 2004-2005: 22.1\%) commute more than 45 minutes, including 3.1\% (vs. 2005-2006: $3.5 \% ; 2004-2005: 2.9 \%$ ) at over 90 minutes. See the pie chart on the right for a summary. The mean commute time of 32.3 minutes now exceeds half an hour each way.

## Working from Home

Almost two thirds ( $64.7 \%$ ) of respondents telecommute at least an hour every week with a mean of 7.5 hours/week and a median of three hours/week (though this could be checking e-mail in the evenings). Fully $11.8 \%$ spend more than half time $(\geq 20$ hours/week) telecommuting.

## Days of Travel per Year



## Longevity and Loyalty

Recent economic conditions have dramatically changed notions of employer (and employee) loyalty and position longevity in many cultures. The mean job stay of those at their job at least a few months is 5.09 years (2005-2006: 5.46 years; 2004-2005: 4.14 years; 2003: 4.22; 2002: 4.32 years); the median is down to three years. $53.7 \%$ (2005-2006:53.6\%; 2004-2005: 53.1\%; 2003: 54\%) have been at their job for less than four years. Only $22.2 \%$ (2005-2006: 28.1\%; 2004-2005: 13.7\%; 2003: 15.7\%; 2002: 15.1\%; 2001: 18.4\%) of those who responded say they have been with their current employer for seven years or more.
Looked at another way, it's clear that these days admins continue to move around to different jobs (for a number of reasons). On the far right is a chart that reveals the number of primary employers respondents report having had over the previous five years. Note that 42.4\% (2005-2006: 48.0\%; 2004-2005: 41.4\%; 2003: $38.6 \%$ ) have stayed with the same employer for the full half-decade. It seems that folks are not job hopping nearly so much as during the 'boom.'

As far as loyalty goes, the survey asked what would make people wish to change jobs (they could check several items). Intriguingly, compensation is \#1 on the list of respondents, almost twice as high as second place. Job satisfaction has a huge number of components that include (from former computer company executive Bill Wallace):

- A sense of personal power; mastery over others
- Ego-gratification - a feeling of price or importance
- Financial success
- Recognition of success; reassurance of worth
- Social or group approval; acceptance of peers
- The desire to win; need to be first
- A sense of roots
- Opportunity for creative expression
- Accomplishment of something worthwhile
- New experiences
- Liberty, freedom, privacy from intrusion
- A sense of self-esteem, dignity, and self-respect
- Love in all forms
- Emotional security



## Empl's Last Five Yrs



| Reasons to Change Jobs |  |  |  |
| :---: | :---: | :---: | :---: |
| Why | \% Resp. | Why | \% Resp. |
| Pay/compensation | 57.7 | Reputation, size, potential, stability, or mission | 12.9 |
| Challenge/interest | 34.0 | Ethics | 12.8 |
| Ability to advance/be promoted more quickly | 30.7 | Ability to work with/avoid a given brand or vendor (incl. linux) | 10.3 |
| Benefits | 28.5 | Family-friendly | 10.3 |
| Job security | 21.1 | Company size | 9.6 |
| People (friendlier, more competent, etc.) | 20.8 | Physical environment (e.g., offices vs. cubicles) | 9.6 |
| Management/vision | 20.0 | Dress code | 9.3 |
| Hours or schedules (good or bad) | 19.3 | Workload | 9.1 |
| Training, learning, tuition reimbursement, certification | 18.8 | Project management | 7.4 |


| New technology | 18.4 |
| :--- | :--- |
| Location/commuting issues | 17.9 |
| Culture | 17.1 |
| Vacation time | 14.7 |
| Telecommuting | 14.3 |
| Respect | 14.1 |
| Ability to work with or con- <br> tribute to open source <br> projects | 13.4 |
| Competence | 13.1 |


| On-call/pager/mobile phone | 5.5 |
| :--- | ---: |
| issues | 4.8 |
| Conference attendance | 3.9 |
| Travel issues (want more or <br> want less) | 3.4 |
| Visa/work permit | 2.1 |
| Child care | 2.1 |
| Intellectual property policy |  |
| Other (please specify) | [8] |

Ten years ago, compensation did not so frequently come out \#1 on the list.

As to longevity expectations, $75.9 \%$ (2005-2006: $84.1 \%$; (2004-2005: 79.9\%; 2003: 80.6\%, 2002: 79.4\%; 2001: 75.8\%) of respondents report that they expect to be in system administration in five years; the other $24.1 \%$ answered 'No.' The table on the right shows the differences in expectations for members of various sized organizations. Those in the smallest companies (with $0 . .9$ employees) tended to be less confident of their future in computer administration; the rest seem fairly certain of their future (with a slight dip for those in the largest companies).

| Future VS. Org Size |  |  |
| :---: | ---: | ---: |
| N Employees | Sysadmin | Move on |
| $0 . .9$ | $58.5 \%$ | $41.5 \%$ |
| $10 . .49$ | $74.7 \%$ | $25.3 \%$ |
| $50 . .99$ | $81.6 \%$ | $18.4 \%$ |
| 100.499 | $80.5 \%$ | $19.5 \%$ |
| $500 . .999$ | $77.0 \%$ | $23.0 \%$ |
| 1000.4999 | $77.2 \%$ | $22.8 \%$ |
| $5000+$ | $75.4 \%$ | $24.6 \%$ |
| Total | $75.9 \%$ | $24.1 \%$ |

For those who would change away from the profession, what future career areas are they considering? 157 respondents answered the question, "What else would you do?" with some answer that wasn't "Stay in the field." Management was again the big winner. See the table on the right for details.


## Organization Membership

Professionally $23.0 \%$ of respondents belong to SAGE; $17.9 \%$ belong to USENIX; $22.0 \%$ belong to some local group; 7.0\% belong to ACM; and $5.8 \%$ belong to IEEE. The table on the right below shows not only membership but opinions on 'helpfulness' for the total set of respondents. Respondents could check one box for each organization so 'Belong \& Helpful' means not only do they belong but also they think the or-
 ganization is helpful.

Only one other organization garnered significant mention for this query; LOPSA came in with $4.2 \%$ of respondents as members.

## Traditional Time Off

Like most professionals, system administrators usually get some paid vacation (in addition to paid holidays). While $4.5 \%$ of those reporting say they get no paid vacation, the mean of those who do is about 17.7 days (not counting those who report more than 30 annual days off). The median is 18 days. While experience in the field can yield increased vacation days, staying with a single employer longer can yield even greater vacation (see the charts below).

Respondents who received paid holidays had a mean of 9.1 paid holidays/year, with $6.2 \%$ reporting no paid holidays at all.

Note that some cultures have much longer vacation than those in the USA; this accounts for some of the higher numbers.

| Exper. VS. |  |  |  |
| :---: | :---: | :---: | :---: |
| Days Off |  |  |  |
| Years | Days | Years | Days |
| Experience | Vac. | Experience | Vac. |
| 0 | 21.4 | 6 | 18.2 |
| 1 | 16.1 | $7 . .9$ | 18.2 |
| 2 | 15.1 | 10.14 | 17.4 |
| 3 | 16.6 | 15.19 | 17.6 |
| 4 | 16.9 | $20+$ | 19.9 |
| 5 | 15.6 |  |  |


| Longevity and Vacation |  |  |  |
| :---: | :---: | :---: | :---: |
| Years at | Days <br> Employer | Years at <br> Employer | Days <br> Vacation |
| 0 | 16.3 | 6 | 17.6 |
| 1 | 15.7 | 7.9 | 20.2 |
| 2 | 17.5 | 10.14 | 19.8 |
| 3 | 15.7 | 15.19 | 21.8 |
| 4 | 18.1 | $20+$ | 23.3 |
| 5 | 16.5 |  |  |

Annual Days Paid Vacation


Paid Holidays



Sick days are another kind of time off work. Of those responding, 14.5\% (2005-2006: 14.5\%; 2004-2005: 16.4\%; 2003: 12.7\%; 2002: $12.1 \%$ ) receive (or took) no sick days. The mean was 7.9 (2005-2006: 7.5; 2004-2005: 6.9; 2003: 7.4; 2002: 7.1); the median was 5 days (2005-2006: 6; 2004-2005: 6; 2003: 6; 2002: 5). Above on the right is a chart of sick day allocation (for those who have limits).

## Benefits

The chart on the right describes insurance coverage and some other benefits for the survey's respondents. Note that those in Europe often get this coverage from their government and not from their employer.
About 73.2\% (2005-2006: 78.9\%; 2004-2005: 73.1\%; 2003: 75.2\%) of respondents report that their employer contributes to a retirement fund on their behalf. Respondents also reported on receiving other extra benefits.

Insurance Coverage/Benefits

| Coverage | N/A | Unpaid | Partly paid | Fully paid |
| :--- | ---: | ---: | ---: | ---: |
| Laptop or similar hardware | $33.8 \%$ | $9.3 \%$ | $2.7 \%$ | $54.2 \%$ |
| Cell phone | $33.5 \%$ | $15.2 \%$ | $13.6 \%$ | $37.6 \%$ |
| Life insurance | $27.3 \%$ | $11.5 \%$ | $35.3 \%$ | $25.9 \%$ |
| Health insurance | $15.5 \%$ | $6.8 \%$ | $55.2 \%$ | $22.6 \%$ |
| Disability insurance | $31.9 \%$ | $10.4 \%$ | $35.5 \%$ | $22.1 \%$ |
| Home comm. costs | $42.6 \%$ | $27.0 \%$ | $12.5 \%$ | $17.8 \%$ |
| Dental insurance | $25.8 \%$ | $10.2 \%$ | $49.8 \%$ | $14.3 \%$ |
| Vision care insurance | $32.2 \%$ | $12.8 \%$ | $41.6 \%$ | $13.4 \%$ |


| Beneffts Reported |  |  |  |
| :---: | :---: | :---: | :---: |
| Benefit | \% Resp. | Benefit | \% Resp. |
| Family medical insurance | 37.5 | Flexible/cafeteria plan for benefits | 15.2 |
| 401 (k) matching (i.e., company adds money to pension/retirement fund) | 37.2 | Domestic partnership benefits | 14.4 |
| 401 (k) (or other pension/retirement fund) | 35.9 | Donation matching | 13.3 |
| Tuition support; certification cost support | 32.6 | Credit union | 12.8 |
| Food/drink at work (i.e., coffee, Friday bagel program, cheap lunch, cheap soda) | 29.9 | Commuting assistance | 11.9 |
| Parking | 26.2 | Association memberships | 10.2 |
| Telecommuting | 24.3 | Profit sharing | 8.7 |
| Conference attendance (including tutorials) | 24.3 | Child care/childcare assistance | 7.5 |
| Discounts of various kinds | 24.2 | 403(b) | 7.5 |
| Flextime/flexible hours (e.g., $9 \times 80,4 / 40$ schedules) | 24.0 | Company car (or lease) | 5.5 |
| Retirement plan/fund/program | 22.5 | Housing/home loan | 4.2 |
| Gym, health club membership | 19.5 | Special pensions | 2.6 |
| Performance or signing bonus | 19.4 | Other | 1.8 |
| Stock options or stock purchase plan | 17.4 | IRA | 1.5 |
| Employee stock ownership plan | 17.2 | RRSP (matching, assistance) | 1.5 |

## Hiring Outlook

Respondents were asked to estimate the number of sysadmins to be hired in the upcoming year. The chart on the right summarizes this optimistic outlook. Almost three quarters (72.1\%) anticipate hiring at least one person. Almost $7 \%$ anticipate hiring ten or more.

Anticipated Hires


## Users per Admin

Managers often look to SAGE for a "universal constant" that is the number of full-time-equivalent users that a single administrator can manage. This year's survey again collected data from which to estimate this elusive value. The answer is, "It depends." A site with resource-intensive users might require far more admins than, for example, eBay, which has a huge number of users but a smaller admin ratio, since the users are generally exploiting a single application.
As reported in previous surveys, the breakdown shows a bell-shaped distribution when plotted against a logarithmic scale for the number of users; see the chart below.


Some notes on this chart:

- A small number of respondents appears to have responded with unusual and probably erroneous numbers (e.g., 40,000 admins for 40,000 users). Thus, take the left-hand bars with a grain of salt.
- Multiple respondents from the same company will skew that company's ratio a bit higher on the "Sites Reporting" scale.
This same bell curve (on a logarithmic scale!) has appeared now for almost a decade.


## Salary Information

Demographics are interesting, but salaries form the heart of a salary survey. Here's a quick rundown of how some people work and get paid:

- $59.0 \%$ (2005-2006: 65.2\%; 2004-2005: 63.8\%; 2003: 65.1\%) of employees are "generally satisfied with their compensation package" ( $41.0 \%$ aren't)
- $54.3 \%$ (2005-2006: $46.1 \%$ ) of respondents are not specially compensated for overtime
- $8.0 \%$ receive both cash and/or time off as compensation for overtime work
- $12.4 \%$ receive cash compensation for overtime work
- $25.3 \%$ receive time off as compensation for overtime work
- $68.1 \%$ of respondents are not specially compensated for 'night' (shift) work
- $17.8 \%$ receive comp time or other compensation for special hours
- $14.1 \%$ receive more money for special hours
- $76.0 \%$ (2005-2006: 77.7\%; 2004-2005: 71.6\%; 2003: 73.5\%; 2002: 69.9\%) of respondents are at least occasionally required to be on call, wear a pager, or carry a cell phone
- $19.4 \%$ receive compensation for being on call ( $5.0 \%$ comp time, $11.5 \%$ money, $2.9 \%$ either/both)
- $24.8 \%$ (2005-2006: 21.1\%; 2004-2005: 28.4\%; 2003: 25.5\%; 2002: 44.2\%) of respondents never carry a pager/cell phone; $40.3 \%$ (vs. 2005-2006: 46.4\%; 2004-2005: 44.2\%) wear a pager/cell phone all the time. The rest are on call at various frequencies: $6.8 \%$ are on call one week out of two or more; $.75 \%$ are on call one week out of three or so; $7.4 \%$ are on call one week out of four or so; $5.5 \%$ are on call one week out of five or so; $5.8 \%$ are on call one week out of six or so; $5.7 \%$ are on call sometimes, but less than one week out of six.
- $24.1 \%$ (2005-2006: $26.7 \%$; 2004-2005: $26.7 \% ; 2003: 27.5 \% ; 2002: 30.3 \%$ ) of respondents receive some sort of stock bonus
- $92.4 \%$ of respondents work for a single employer
- $90.2 \%$ of respondents are salaried; $9.8 \%$ (2005-2006: $12.6 \%$; 2004-2005: 15.6\%; 2003: $13.7 \%$ ) are paid hourly

This statistical summary attempts to describe the state of salaries and salary changes over the last year by examining salary with respect to gender, age, experience, geography, industry, and other factors.
The number of respondents in certain sub-categories is occasionally too low to draw valid statistical inferences (e.g., just one person in Anchorage, Alaska). Generally, statistics that are nonreliable by virtue of their small sample size are either not reported or reported with a '\#' to mark them as unreliable.

## Salary Change Summary

The average salary change for those 525 full-time respondents with incomes of US $\$ 10 \mathrm{~K}-\mathrm{US} \$ 200 \mathrm{~K}$ with salary changes from $-30 \%$ to $30 \%$ (from all nations and currencies) was $6.65 \%$ (2005-2006: 5.43\%).
6.3\% (2005-2006: 7.5\%) earned less this year; 10.9\% (2005-2006: 16.5\%; 2004-2005: 24.1\%) had no change in salary. Of those $82.9 \%$ (2005-2006: 83.8\%; 2004-2005: $75.9 \%$ ) who increased their salaries no more than $30 \%$, the average increase was $8.80 \%$ (2005-2006: 7.44\%; 2004-2005: 9.2\%; 2003: 8.2\%). In a surprising development, raises were spread fairly evenly throughout the salary range, with higher earners being dramatically less penalized than in the past (with a single exception).

Prior to 2004-2005, it appeared that managers were allotting a pot of raise-dollars to a number of variously paid staff; this year's dollar-value of raises continued to be much higher for the $\$ 100 \mathrm{~K}+$ brackets.
To the right is an overall chart of last year's salary changes, calculated against last year's salary - and shown by gender. It does not show experience or job categories and thus should be viewed only as an overall picture. Some gender difference appears throughout the table.

The page's final chart shows the various salary changes. It's easy to see that the $2-4 \%$ range was very popular in addition to the "no raise" and $16 . .20 \%$ range.

Increases by Salary Range

| Range | \% in Range | \% Incr | Incr (US\$) |
| :---: | ---: | :---: | :---: |
| $<20,000$ | 3.0 | 8.5 | 1,260 |
| $20,000-29,999$ | 4.2 | 11.2 | 2,795 |
| $30,000-39,999$ | 4.0 | 10.3 | 3,531 |
| $40,000-49,999$ | 8.0 | 5.5 | 2,513 |
| $50,000-59,999$ | 9.7 | 5.5 | 3,030 |
| $60,000-69,999$ | 13.0 | 7.0 | 4,476 |
| $70,000-79,999$ | 16.0 | 5.6 | 4,170 |
| $80,000-89,999$ | 11.8 | 4.9 | 4,151 |
| $90,000-99,999$ | 9.0 | 8.3 | 7,757 |
| $100,000-124,999$ | 15.8 | 6.5 | 6,980 |
| $125,000-149,999$ | 3.6 | 8.2 | 11,187 |
| $150,000-174,999$ | 1.7 | 2.9 | 4,507 |
| $175,000-199,999$ | 0.2 | 22.2 | 43,999 |



## Bonuses

Some companies give one-time rewards to people in lieu of changing their salary. The respondents were asked whether they received such a bonus/incentive and why:

| Reasons for Bonus/lncentive |  |  |  |
| :---: | :---: | :---: | :---: |
| Reason | \% Resp. | Reason | \% Resp. |
| Did not receive a bonus | 37.2 | Bonus/incentive for staying with the organization | 2.6 |
| Bonus/incentive based on your individual performance | 27.6 | By exercising stock options | 2.1 |
| Bonus/incentive based on how well your organization performed | 22.1 | Bonus/incentive for travel | 1.6 |
| Regular annual bonus/incentive | 14.5 | Other | 1.6 |
| Bonus/incentive based on how well your group, department, or unit performed | 13.0 | Bonus/incentive for assisting with hiring | 1.5 |
| Holiday bonus | 10.0 | Bonus/incentive for obtaining a certification | 1.1 |
| Bonus/incentive for a special project | 6.4 | Bonus/incentive for receiving a degree | [6] |
| Bonus/incentive for special work (e.g., oncall, pager/cell-phone duty) | 5.0 | Bonus/incentive for relocation | [5] |
| Sign-on or recruiting bonus | 3.1 | Bonus/incentive dictated by a union or legislation | [3] |

## Working More

Does working more imply getting a bigger salary change? The table at the right suggests that this is no longer true (except in the extreme 60+ hours/week case) despite positive indications in previous years.

| Hrs Vs. | Incr. |  |
| :---: | ---: | :---: |
| Hours $\%$ Incr. $\%$ Resp. |  |  |
| $30-39$ | 8.6 | 10.7 |
| $40-44$ | 6.3 | 39.8 |
| $45-49$ | 6.9 | 23.2 |
| $50-54$ | 5.9 | 17.3 |
| $55-59$ | 2.5 | 3.4 |
| $60-64$ | 8.4 | 3.8 |
| $65+$ | 11.0 | 1.7 |

## Salaries vs. Experience

Experience counts. Those with less than three years of experience report incomes that average $\$ 40,000$ less than those with more than ten years of experience - but the next ten years brings only a $\$ 3,000$ average gain (thus demonstrating salary compression). The charts on the next page show total compensation (after last year's salary change) vs. experience.

The table below summarizes the experience vs. salary numbers for those reporting in US currency. The graphs on the next page, however, are also illuminating, since they enable you to pinpoint just where you stand in the (almost) bell curve of salaries for those with similar experience.
The table includes three sets of statistics, all of which are narrowed by requiring last year's increase to be in the range $-30 . .30$, income to be in the range US $\$ 10,000$..US $\$ 200,000$, experience to be at least one year, weekly work at least 30 hours/week, and salary to be reported in US dollars (thus restricting the numbers mostly to the USA no other countries had enough respondents to create valid general statistics). Statistical groups include:

- Summary of all respondents who meet the conditions above.
- Only those who actually increased their salary during this survey's year.
- Only those who have worked for the same organization for at least two years (i.e., this column arguably shows the raises people get at an organization instead of by changing to a new job).
Note in all statistics that even though the percentage of increase ranges widely, the dollar increase holds much closer to constant across experience levels.

| Admin Experience vs. Salary and Increase |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exp Range | \% Resp. | $\begin{array}{\|l} \hline \text { All R } \\ \text { Sal. } \end{array}$ | esponses --Incr-- | $\begin{aligned} & \text { Rai } \\ & \text { Sal. } \end{aligned}$ | $\begin{aligned} & \hline s e>0 \\ & - \text {-Incr-- } \end{aligned}$ | $\begin{gathered} \text { Sam } \\ \text { Sal. } \end{gathered}$ | $\begin{aligned} & \text { O. }>2 \mathrm{Yr} \\ & \text {--Incr-- } \end{aligned}$ |
| $0 . .0$ | 0.3\% | 67,000 | 3.1\% \$2,061 | 67,000 | 3.1\% \$2,061 | 67,000 | 3.1\% \$2,061 |
| $1 . .2$ | 3.1\% | 55,615 | 4.5\% \$2,528 | 56,820 | 1.1\% \$6,280 | 52,676 | 7.9\% \$4,183 |
| 3.4 | 5.9\% | 57,269 | 5.3\% \$3,025 | 60,918 | 9.0\% \$5,507 | 57,659 | 6.9\% \$4,002 |
| 5.6 | 8.7\% | 61,774 | 5.9\% \$3,639 | 63,904 | 8.9\% \$5,682 | 58,349 | 6.5\% \$3,786 |
| $7 . .8$ | 13.6\% | 76,493 | 8.0\% \$6,124 | 77,159 | 9.5\% \$7,364 | 77,824 | 7.2\% \$5,609 |
| $9 . .10$ | 22.3\% | 77,461 | 5.8\% \$4,514 | 80,258 | 8.1\% \$6,494 | 74,982 | 5.3\% \$3,992 |
| 11.. 15 | 27.6\% | 88,753 | 5.7\% \$5,086 | 88,551 | 7.3\% \$6,448 | 88,087 | 5.4\% \$4,775 |
| $16 . .19$ | 6.4\% | 89,886 | 5.1\% \$4,623 | 89,938 | 7.3\% \$6,571 | 92,506 | 2.7\% \$2,530 |
| 20+ | 12.3\% | 96,458 | 3.3\% \$3,214 | 100,601 | 4.9\% \$4,920 | 95,697 | 3.7\% \$3,543 |

Below are the overall distributions for salary vs. experience, though they include all countries with no special processing for geography.









The charts show pleasing bell-curve distributions that connote the validity of the statistics. A small number of dramatically higher-paid respondents ups the average a slight bit in just about every chart. Checking the records uncovers that some of these were due to one-time bonuses for various reasons.

## Gender Studies

As time goes on, women are, in general, catching up to men in experience (years ago, computer professions were truly male-dominated). The charts on the right show the distribution and average salary increase for the entire group and for men/women broken out. The top chart includes the very high and very low salaries in addition to very positive and very negative salary swings.

On the right below is a graphical repre-

| Salary VS. Years of Experience |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Oears | Overall |  | Male |  | Female |  |
| 0.2 | 49,418 | 7.1 | 48,546 | 6.7 | $53,777 \#$ | 10.7 |
| $3 . .4$ | 48,474 | 9.0 | 50,109 | 9.3 | $30,162 \#$ | 6.7 |
| 5.6 | 58,274 | 12.3 | 60,458 | 12.3 | $40,313 \#$ | 12.0 |
| $7 . .8$ | 72,202 | 12.9 | 73,001 | 13.1 | $64,305 \#$ | 10.7 |
| 9.10 | 71,061 | 19.4 | 71,799 | 19.5 | 64,893 | 18.7 |
| $11 . .15$ | 82,654 | 23.2 | 85,503 | 23.3 | 59,193 | 22.7 |
| $16 . .19$ | 89,814 | 5.8 | 91,079 | 6.0 | $74,640 \#$ | 4.0 |
| $20+$ | 96,570 | 10.4 | 98,493 | 9.8 | 86,256 | 14.7 | sentation of the same salary brackets by gender. Small sample sizes show that the numbers shouldn't be trusted too much, but salaries of women with three or more years of experience seem to be lagging those of men. For women vs. men in salary increases, no trend is readily observable. The final graph of bracketed salaries shows that women generally keep parity with men until the US $\$ 100 \mathrm{~K}$ level. Again, small sample sizes do not warrant much trust in these results.

Increases by Gender and Salary Range

| Salary | Overall |  | Male |  | Female |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Incr. | N | Incr. | N | Incr. |
| 10,000..19,999 | 2.9\% | 8.5\% | 2.4\% | 9.0\% | 6.8\% | 7.1\% |
| 20,000..29,999 | 4.6\% | 9.5\% | 3.9\% | 10.2\% | 10.2\% | 7.4\% |
| 30,000..39,999 | 4.0\% | 8.9\% | 3.5\% | 6.7\% | 8.5\% | 16.2\% |
| 40,000..49,999 | 8.2\% | 5.4\% | 8.8\% | 5.5\% | 3.4\% | 2.4\% |
| 50,000..59,999 | 9.5\% | 5.2\% | 9.0\% | 5.3\% | 13.6\% | 4.8\% |
| 60,000..69,999 | 12.9\% | 7.0\% | 12.9\% | 6.9\% | 13.6\% | 7.5\% |
| 70,000..79,999 | 16.4\% | 5.8\% | 16.5\% | 6.1\% | 15.3\% | 2.8\% |
| 80,000..89,999 | 11.7\% | 4.9\% | 12.0\% | 4.7\% | 8.5\% | 6.9\% |
| 90,000..99,999 | 8.9\% | 8.6\% | 8.8\% | 8.9\% | 10.2\% | 6.5\% |
| 100,000..149,999 | 18.9\% | 6.7\% | 20.2\% | 6.7\% | 8.5\% | 8.6\% |
| 150,000+ | 2.0\% | 5.0\% | 2.0\% | 6.1\% | 1.7\% | -5.9\% |



## Salary and Education

Education is often said to enhance salaries. The chart on the right (which is for general education, not technical education), while not accounting for experience, shows that this adage seems to hold true except for those with Master's degrees (!). Note that certificates do not contribute nearly as strongly as some technical school advertisements might suggest.
The second chart on the right shows average salaries compared against 'relevant' education. Except for Master's degrees, this chart reflects a very traditional sort of observation: more, better education yields higher salaries. Upon checking those whose 'formal education is in other fields,' some are entrepreneurs (even company founders) while others live in high-cost-of-living cities or have inordinate experience. The smaller sample size caused a majority of this anomaly.
The next chart breaks down salary by experience and education. The \# means that the sample is probably too small to believe the numbers.

Generally, it appears that both education and longevity pay off.

| Salary VS. |  |  |  |
| :--- | :---: | :---: | ---: |
| Educluation |  |  |  |
| EducLevel | AvgSal | AvgInc | \% Resp. |
| Ph.D./D.Sc. | 94,335 | $5.5 \%$ | $2.6 \%$ |
| Bachelor's Degree | 76,229 | $6.5 \%$ | $42.1 \%$ |
| Associate's Degree | 75,199 | $6.2 \%$ | $7.1 \%$ |
| Some College or Technical School | 74,467 | $6.3 \%$ | $21.6 \%$ |
| Less than High School Diploma | 70,744 | $0.1 \%$ | $[4]$ |
| Master's Degree | 66,038 | $7.6 \%$ | $13.6 \%$ |
| High School Diploma | 61,527 | $5.7 \%$ | $5.7 \%$ |
| Technical Certificate(s) | 56,714 | $9.8 \%$ | $6.8 \%$ |


| Salary vs. Relevant Education |  |  |  |
| :---: | :---: | :---: | :---: |
| EducLevel | AvgSal | Avglnc | \% Resp. |
| Ph.D./D.Sc. | 88,332 | 10.9\% | 1.1\% |
| All of my formal education is in other fields | 78,491 | 7.2\% | 9.6\% |
| Associate's Degree | 76,215 | 5.3\% | 5.1\% |
| Bachelor's Degree | 75,193 | 6.5\% | 27.9\% |
| Some College or Technical School | 74,982 | 6.1\% | 14.5\% |
| Self-taught | 72,946 | 6.0\% | 17.9\% |
| Technical Certificate(s) | 64,891 | 8.0\% | 14.0\% |
| Master's Degree | 63,692 | 7.3\% | 10.0\% |


| Salary and Incr. by Education/Exp. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education level | 0.1 | 2 | 3.4 | 5.9 | 10.14 | 15.19 | 20 |
| Master's Degree |  | $\underset{\substack{22,101 \\ 6.2 \#}}{ }$ | $\begin{gathered} 66,098 \\ 5.5 \# \end{gathered}$ | $\begin{gathered} 56,660 \\ 8.7 \end{gathered}$ |  |  |  |
| Bachelor's Degree |  | $\begin{aligned} & 55,646 \\ & 12.6 \end{aligned}$ | $\begin{gathered} 51,669 \\ 9.4 \end{gathered}$ | $\begin{gathered} 71,038 \\ 8.0 \end{gathered}$ | $\begin{gathered} 89,612 \\ 6.1 \end{gathered}$ | $\begin{gathered} 85,109 \\ 2.9 \end{gathered}$ | $\begin{gathered} 96,891 \\ 3.3 \end{gathered}$ |
| Assoc. Degre |  | $\begin{gathered} 28,080 \\ 8.0 \# \end{gathered}$ |  |  |  |  | $\begin{gathered} 101,130 \\ 4.0 \end{gathered}$ |
| Some Coll/Tech Sch | $\begin{aligned} & 28,969 \\ & 20.0 \# \end{aligned}$ | $\begin{gathered} 67,138 \\ \text { 4.6\# } \end{gathered}$ | $\begin{gathered} 41,668 \\ 7.1 \end{gathered}$ | $\begin{gathered} 67,605 \\ 6.6 \end{gathered}$ | $5.6$ | $6.2$ | $\begin{array}{r} 1.4 \\ 4.8 \end{array}$ |
| Technical Cert(s) |  | $\begin{gathered} 53,000 \\ -5.9 \# \end{gathered}$ | $\begin{aligned} & 34,806 \\ & 11.6 \# \end{aligned}$ | $\begin{gathered} 62,430 \\ 11.7 \end{gathered}$ | $\begin{gathered} 74,409 \\ 6.4 \end{gathered}$ | $\begin{gathered} 76,560 \\ 17 \end{gathered}$ | $\begin{gathered} 112,500 \\ 4.7 \# \end{gathered}$ |
| igh School Diploma | ---- | ---- | $\begin{gathered} 58,660 \\ 8.6 \# \end{gathered}$ | $\begin{gathered} 71,958 \\ 11.7 \end{gathered}$ | $\begin{gathered} 89,824 \\ 6.7 \end{gathered}$ | $\begin{gathered} 99,859 \\ 4.3 \end{gathered}$ | $\begin{gathered} 76,554 \\ 3.6 \end{gathered}$ |
| ss than HS Diplor | $\begin{gathered} 89,693 \\ 13.8 \# \end{gathered}$ | $\begin{aligned} & 43,000 \\ & -12.3 \# \end{aligned}$ | $\begin{gathered} 53,736 \\ 2.6 \end{gathered}$ | $\begin{gathered} 69,105 \\ 8.5 \end{gathered}$ | $\begin{gathered} 73,113 \\ 4.3 \end{gathered}$ | $\begin{gathered} 89,558 \\ 7.5 \end{gathered}$ | $\begin{gathered} 94,650 \\ 3.8 \end{gathered}$ |

## Salary in USA Metro Areas

The cost of living varies in different cities (e.g., New York City is very expensive; Kansas City is less so). The chart below shows how compensation varies in some of the larger tech cities. All salary reports are converted to dollars using 4 August 2008 exchange rates.

| Average Salary by Metro Area |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metro area | Salary | \% Incr | \% Resp. | Metro area | Salary | \% Incr | \% Resp. |
| San Francisco/San Jose/Silicon Valley, CA, Area | 99,792 | 5.5 | 7.0 | Philadelphia, PA, Metro Area | 80,122 | 7.7 | 2.5 |
| London, England Metro Area | 99,201 | 9.0 | 1.3 | Research Triangle, NC | 78,623 | 8.0 | 1.5 |
| New York Metro Area | 94,187 | 5.9 | 5.0 | Austin, TX Metro Area | 77,295 | 4.7 | 2.3 |
| San Diego, CA, Metro Area | 94,120 | 7.0 | 1.3 | Atlanta, GA Metro Area | 75,610 | 4.9 | 2.1 |
| Washington, DC, Metro Area | 93,365 | 7.8 | 3.4 | Seattle/Redmond, WA Metro Areas | 73,961 | 4.2 | 2.1 |
| Chicago, IL Metro Area | 93,092 | 9.1 | 2.1 | Toronto, ON, Metro Area | 73,357 | 10.6 | 1.3 |
| Denver, CO Metro Area | 92,104 | 4.2 | 2.7 | Montreal, QC, Metro Area | 72,792 | 9.2 | 1.0 |
| Dallas, TX Metro Area | 90,652 | 6.5 | 2.5 | Not applicable | 64,573 | 6.9 | 53.5 |
| Los Angeles/Orange Co., CA, Metro Area | 86,936 | 6.7 | 3.4 | Vancouver, BC, Metro Area | 57,857 | 11.1 | 0.8 |
| Boston, MA, Metro Area | 82,407 | 5.2 | 3.0 |  |  |  |  |

## Salary in USA Metro Areas by Experience

The chart on this page factors in both self-reported (vs. derived) geography and experience; all salaries are converted to US\$.

The \# symbol means the sample size is small and not trustworthy; boxes with '----' had few or no samples.

| Avg Salary/Ra/se by Area/Experience |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area | 0.1 | $2 . .4$ | $5 . .9$ | 10..14 | 15.. 19 | 20+ |
| Ottawa, ON, Metro Area | ----- | ----- | ----- | ----- | ----- | $\begin{gathered} 142,912 \\ 17.5 \# \end{gathered}$ |
| San Francisco/San Jose/Silicon Valley, CA, Area | $\begin{gathered} 67,000 \\ 3.1 \# \end{gathered}$ | ----- | $\begin{gathered} 93,520 \\ 7.6 \end{gathered}$ | $\begin{gathered} 96,939 \\ 5.1 \end{gathered}$ | $\begin{gathered} 95,000 \\ 4.4 \end{gathered}$ | $\begin{gathered} 131,450 \\ 5.1 \end{gathered}$ |
| London, England Metro Area | $\begin{gathered} 90,234 \\ 9.5 \# \end{gathered}$ | $\begin{aligned} & 75,522 \\ & 17.3 \# \end{aligned}$ | $\begin{aligned} & 98,080 \\ & \text { 19.0\# } \end{aligned}$ | $\begin{aligned} & 94,157 \\ & 11.6 \# \end{aligned}$ | $\begin{gathered} 85,330 \\ 0.0 \# \end{gathered}$ | $\begin{gathered} 156,928 \\ -5.9 \# \end{gathered}$ |
| Sydney, Australia Metro Area | ----- | ----- | ----- | $\begin{gathered} 74,480 \\ 0.0 \# \end{gathered}$ | $\begin{gathered} 121,030 \\ 8.3 \# \end{gathered}$ | ----- |
| New York Metro Area | ----- | $\begin{aligned} & 87,500 \\ & 10.7 \# \end{aligned}$ | $\begin{gathered} 92,166 \\ 9.7 \end{gathered}$ | $\begin{gathered} 96,776 \\ 3.9 \end{gathered}$ | $\begin{gathered} 113,500 \\ 8.0 \end{gathered}$ | $\begin{gathered} 74,775 \\ 0.7 \end{gathered}$ |
| San Diego, CA, Metro Area | ----- | ----- | ----- | $\begin{gathered} 87,550 \\ 5.5 \end{gathered}$ | $\begin{gathered} 102,822 \\ 12.4 \# \end{gathered}$ | $\begin{gathered} 103,000 \\ 2.0 \# \end{gathered}$ |
| Washington, DC, Metro Area | $\begin{gathered} 46,300 \\ 2.7 \# \end{gathered}$ | $\begin{aligned} & 70,108 \\ & 13.4 \# \end{aligned}$ | $\begin{gathered} 89,750 \\ 9.0 \end{gathered}$ | $\begin{gathered} 93,810 \\ 9.5 \end{gathered}$ | $\begin{gathered} 129,000 \\ -4.4 \# \end{gathered}$ | $\begin{gathered} 120,000 \\ 4.4 \# \end{gathered}$ |
| Chicago, IL Metro Area | ----- | ----- | $\begin{gathered} 89,666 \\ 8.3 \end{gathered}$ | $\begin{aligned} & 94,083 \\ & 10.6 \# \end{aligned}$ | $\begin{gathered} 101,883 \\ 9.2 \# \end{gathered}$ | ----- |
| Denver, CO Metro Area | ----- | ----- | $\begin{gathered} 74,500 \\ 3.3 \end{gathered}$ | $\begin{gathered} 94,558 \\ 3.7 \end{gathered}$ | $\begin{gathered} 95,000 \\ 3.3 \# \end{gathered}$ | $\begin{gathered} 140,000 \\ 12.0 \# \end{gathered}$ |
| Dallas, TX Metro Area | ----- | $\begin{gathered} 60,240 \\ 9.1 \# \end{gathered}$ | ----- | $\begin{gathered} 89,375 \\ 6.8 \end{gathered}$ | $\begin{gathered} 116,500 \\ 3.6 \# \end{gathered}$ | $\begin{gathered} 110,000 \\ 4.8 \# \end{gathered}$ |
| Los Angeles/Orange Co., CA, Metro Area | ----- | $\begin{aligned} & 54,000 \\ & 12.5 \# \end{aligned}$ | $\begin{gathered} 75,700 \\ 9.7 \end{gathered}$ | $\begin{gathered} 96,500 \\ 5.6 \end{gathered}$ | $\begin{aligned} & 95,666 \\ & -1.6 \# \end{aligned}$ | $\begin{gathered} 116,127 \\ 6.4 \# \end{gathered}$ |
| Houston, TX Metro Area | ----- | ----- | $\begin{gathered} 107,000 \\ 1.9 \# \end{gathered}$ | $\begin{aligned} & 75,250 \\ & -7.1 \# \end{aligned}$ | ----- | ----- |
| Boston, MA, Metro Area | ----- | $\begin{gathered} 60,900 \\ 9.2 \# \end{gathered}$ | $\begin{gathered} 74,785 \\ 3.9 \end{gathered}$ | $\begin{gathered} 90,666 \\ 6.6 \# \end{gathered}$ | $\begin{gathered} 110,000 \\ 4.8 \# \end{gathered}$ | $\begin{gathered} 97,071 \\ 4.5 \# \end{gathered}$ |
| Philadelphia, PA, Metro Area | ----- | ----- | $\begin{aligned} & 80,227 \\ & 10.8 \end{aligned}$ | $\begin{gathered} 80,333 \\ 8.4 \# \end{gathered}$ | $\begin{gathered} 73,900 \\ 1.1 \# \end{gathered}$ | $\begin{gathered} 85,713 \\ 3.8 \# \end{gathered}$ |
| Research Triangle, NC | ----- | $\begin{aligned} & \text { 43,000 } \\ & \text {-12.3\# } \end{aligned}$ | $\begin{aligned} & 73,333 \\ & 14.6 \# \end{aligned}$ | $\begin{gathered} 91,497 \\ 8.1 \end{gathered}$ | -- | ----- |
| Austin, TX Metro Area | ----- | ----- | $\begin{gathered} 66,256 \\ 5.9 \end{gathered}$ | $\begin{gathered} 84,750 \\ 2.6 \end{gathered}$ | $\begin{gathered} 95,500 \\ 5.1 \# \end{gathered}$ | ----- |
| Atlanta, GA Metro Area | ----- | ----- | $\begin{gathered} 63,510 \\ 7.8 \end{gathered}$ | $\begin{gathered} 85,000 \\ 3.7 \# \end{gathered}$ | $\begin{gathered} 86,386 \\ 1.2 \# \end{gathered}$ | ----- |
| Seattle/Redmond, WA Metro Areas | $\begin{aligned} & 72,000 \\ & -8.9 \# \end{aligned}$ | $\begin{aligned} & 85,000 \\ & 18.1 \# \end{aligned}$ | $\begin{gathered} 59,043 \\ 5.9 \end{gathered}$ | $\begin{gathered} 81,466 \\ 1.9 \# \end{gathered}$ | $\begin{gathered} 90,000 \\ 5.9 \# \end{gathered}$ | $\begin{gathered} 86,000 \\ 1.8 \# \end{gathered}$ |
| Toronto, ON, Metro Area | $\begin{aligned} & 28,969 \\ & 20.0 \# \end{aligned}$ | ----- | $\begin{gathered} 55,416 \\ 5.3 \# \end{gathered}$ | $\begin{gathered} 95,597 \\ 7.8 \# \end{gathered}$ | $\begin{aligned} & 86,906 \\ & 20.0 \# \end{aligned}$ | ----- |
| Montreal, QC, Metro Area | ----- | ----- | $\begin{aligned} & 62,740 \\ & 13.2 \# \end{aligned}$ | $\begin{gathered} 87,872 \\ 3.0 \# \end{gathered}$ | ----- | ----- |
| Not applicable | $\begin{gathered} 100,429 \\ 19.6 \# \end{gathered}$ | $\begin{gathered} 47,213 \\ 6.1 \end{gathered}$ | $\begin{gathered} 56,604 \\ 9.6 \end{gathered}$ | $\begin{gathered} 67,837 \\ 6.0 \end{gathered}$ | $\begin{gathered} 75,672 \\ 6.2 \end{gathered}$ | $\begin{gathered} 86,498 \\ 3.4 \end{gathered}$ |
| Vancouver, BC, Metro Area | ----- | $\begin{aligned} & 48,281 \\ & 17.8 \# \end{aligned}$ | $\begin{gathered} 67,434 \\ 4.4 \# \end{gathered}$ | ----- | ----- | ---- |

## SAGE Job Classifications vs. Salary

The SAGE job classifications were detailed on page 7. This table shows how classification and experience affect salary. Generally, higher numbers seem to appear exactly where one would expect.

| Salary/hcrease by SAGE Classification |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \&nd Experience |  |  |  |  |  |  |  |  |  |  |
|  | Level 1 |  | Level 2 |  | Level 3 |  | Level 4 |  | N/A |  |
| Exp Yrs | Sal | \%Incr | Sal | \%Incr | Sal | \%Incr | Sal | \%Incr | Sal | \%Incr |
| $1 . .2$ | 28,969\# | 20.0\# | 57,407 | 5.1 | 47,649 | 5.0 | 64,276\# | 4.8\# | 22,101\# | 6.2\# |
| $3 . .4$ | 26,476\# | 0.0\# | 55,070 | 11.2 | 52,258 | 6.9 | 62,208 | 4.9 | 22,308\# | 10.6\# |
| $5 . .6$ | 18,359\# | 11.8\# | 52,560 | 1.2 | 55,799 | 7.4 | 104,718\# | 14.1\# | 26,000\# | 7.1\# |
| $7 . .8$ | 52,000\# | 0.0\# | 64,364 | 4.4 | 68,882 | 9.1 | 79,266 | 10.6 | 79,999\# | 11.5\# |
| $9 . .10$ | 91,765\# | 2.0\# | 60,059 | 4.2 | 73,880 | 6.0 | 80,563 | 8.1 | 47,153\# | 1.9\# |
| 11.15 | ---- | ---- | 67,070 | 3.5 | 81,932 | 6.3 | 90,768 | 6.3 | 48,211\# | 7.2\# |
| 16..19 | ---- | ---- | 43,453\# | 2.3\# | 90,974 | 4.2 | 91,029 | 8.4 | 140,166\# | 12.5\# |
| 20+ | ---- | ---- | 58,824\# | -8.7\# | 85,313 | 3.9 | 108,770 | 4.1 | 67,596\# | 3.7\# |

The '\#' symbol means the number of respondents is small and not to be trusted too much. In fact, almost every statistic (but not quite all) that appears anomalous is indeed marked that it is not to be trusted.
On the right is a graphical chart of the salaries. It is extremely intuitive, with higher salaries for more experience and apparently higher skill levels.

On the right is a graphical chart of the salary increases for the various SAGE levels. The effects of salary compression are exposed here as the presumably younger admins catch up to the older respondents.



## Salary by Focus, Experience, and Region

Sometimes it is easier to compare salaries and increases by focus (job title). The charts to the right and on the next page explore that possibility. Foci are sorted roughly in descending order of apparent earning power.

The \# symbol means the sample size is small and not to be trusted too much.

Refining data to ever smaller subsets sometimes yields sample sizes that are too small. However, it is very useful to explore the salary and salary changes for regions, specialties, and experience. It is the tables below and on the next pages that can make it easy to compare salaries. These regions were derived from reported zip codes.

| Salary and Raise by Title Years of Experience |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Title | $2 . .4$ | 5.9 | 10.14 | 15.19 | 20+ |
| People management | --- | $\begin{aligned} & 85,796 \\ & 16.2 \end{aligned}$ | $\begin{gathered} 99,393 \\ 6.8 \end{gathered}$ | $\begin{gathered} 97,020 \\ 11.9 \# \end{gathered}$ | $\begin{gathered} 97,036 \\ 5.3 \end{gathered}$ |
| Technical lead | $\begin{gathered} 42,996 \\ 9.6 \end{gathered}$ | $\begin{gathered} 82,854 \\ 9.1 \end{gathered}$ | $\begin{gathered} 89,180 \\ 6.8 \end{gathered}$ | $\begin{gathered} 123,605 \\ 4.9 \end{gathered}$ | $\begin{gathered} 107,439 \\ 4.5 \end{gathered}$ |
| Server management | $\begin{gathered} 58,014 \\ 8.0 \end{gathered}$ | $\begin{gathered} 69,242 \\ 7.8 \end{gathered}$ | $\begin{gathered} 84,476 \\ 5.2 \end{gathered}$ | $\begin{gathered} 88,545 \\ 6.0 \end{gathered}$ | $\begin{gathered} 96,334 \\ 2.6 \end{gathered}$ |
| Project management | --- | $\begin{gathered} 37,045 \\ 14.9 \end{gathered}$ | $\begin{gathered} 83,833 \\ 4.4 \# \end{gathered}$ | $\begin{aligned} & 75,444 \\ & 9.5 \end{aligned}$ | --- |
| Generalist | $\underset{9.5}{45,475}$ | $\begin{gathered} 64,526 \\ 7.1 \end{gathered}$ | $\begin{gathered} 75,529 \\ 6.4 \end{gathered}$ | $\begin{gathered} 81,923 \\ 3.5 \end{gathered}$ | $\begin{gathered} 96,246 \\ 4.0 \end{gathered}$ |
| Security | --- | $\begin{gathered} 67,289 \\ 7.9 \end{gathered}$ | $\begin{gathered} 75,968 \\ 6.0 \end{gathered}$ | $\begin{gathered} 79,764 \\ 3.8 \# \end{gathered}$ | --- |
| Other | $\begin{gathered} 42,456 \\ 1.9 \# \end{gathered}$ | $\begin{aligned} & 67,627 \\ & 11.7 \end{aligned}$ | $\begin{gathered} 64,020 \\ 6.1 \end{gathered}$ | $\begin{gathered} 58,890 \\ 7.6 \# \end{gathered}$ | $\begin{gathered} 97,535 \\ 1.6 \# \end{gathered}$ |
| Databases | $\begin{gathered} 66,397 \\ 1.9 \# \end{gathered}$ | --- | $\begin{aligned} & 60,604 \\ & -1.0 \end{aligned}$ | --- | $\begin{gathered} 76,909 \\ 1.9 \# \end{gathered}$ |
| Networking | $\begin{gathered} 53,326 \\ 1.6 \# \end{gathered}$ | $\begin{gathered} 65,347 \\ 7.8 \end{gathered}$ | $\begin{gathered} 56,944 \\ 8.9 \end{gathered}$ | --- | $\begin{gathered} 85,377 \\ 5.5 \# \end{gathered}$ |
| Desktop | --- | --- | --- | $\begin{gathered} 73,500 \\ 2.8 \# \end{gathered}$ | --- |
| Help desk | $\begin{gathered} 36,356 \\ 1.5 \# \end{gathered}$ | $\begin{gathered} 22,052 \\ 19.2 \# \end{gathered}$ | --- | --- | --- |
| Storage | --- | $\begin{gathered} 65,360 \\ 5.0 \end{gathered}$ | --- | --- | --- |


| Salaries (K\$)/Raises by Region and Experience |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region | 1.2 | 3.4 | 5.6 | 7.8 | 9.10 | 11.15 | , | 20+ |
| Afringon | - | $\cdots$ | $\cdots$ | - | - | ${ }_{6.5}^{97.6}$ | - | $\cdots$ |
| Ausin | - | $\cdots$ | $\cdots$ | - | - | 91.0 | - | - |
| Batwash, DC+ | - | $\cdots$ | - | - | -- | ${ }_{6.8}^{107.0}$ | - | - |
| BostortArea | - | $\cdots$ | - | 76.5 | ${ }_{3.6}^{92.4}$ | - | - | - |
| Denver/ <br> Front Range | - | $\cdots$ | - | ${ }_{3.4}^{77.6}$ | - | ${ }_{4.9}^{99.5}$ | - | - |
| Los Angeles | $\cdots$ | $\cdots$ | 플 |  | -- | 100.2 6.9 | $\cdots$ | - |
| Milw | - | $\cdots$ | ㅍ. | - |  | $\cdots$ | $\cdots$ | - |
| New | - | $\cdots$ | - | - | - |  | -- | - |
| San Jose |  |  | $\cdots$ | - |  |  | - |  |

On the right is the same data derived from country codes; few countries had enough samples for statistical validity.

| Salaries (K\$)/Raises by Region and Experience |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region | 1.2 | $3 . .4$ | 5.6 | 7.8 | $9 . .10$ | 11.15 | 16.. 19 | 20+ |
| Canada | --- | $--$ | $\begin{gathered} 62.4 \\ 4.5 \end{gathered}$ | --- | ---- | $\begin{gathered} 93.8 \\ 5.4 \end{gathered}$ | $--$ | --- |
| South Africa | --- | --- | $\begin{aligned} & 30.3 \\ & 13.4 \end{aligned}$ |  | --- | $\begin{gathered} 44.2 \\ 8.8 \end{gathered}$ | --- | --- |
| UK | --- | --- | --- | $-$ | $\begin{aligned} & 70.9 \\ & 10.8 \end{aligned}$ | --- | --- | --- |

## Do Large Companies Pay More?

The chart below shows how salaries are distributed at companies of various sizes. It appears that larger companies not only have more admins (something that is obvious but that you can't tell from the chart) but also have more admins in the higher pay brackets (something the chart shows very clearly).

| Resp's @Salary / Company Size |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Salary | 0.9 | 10.49 | 50.99 | 100..499 | 500.999 | 1000..4999 | 5000+ | Total |
| 0.29,999 | 24.2\% | 11.5\% | 12.8\% | 14.0\% | 12.2\% | 6.7\% | 10.4\% | 11.5\% |
| 30,000..39,999 | 6.1\% | 8.2\% | 2.6\% | 7.0\% | 6.1\% | 9.5\% | 2.7\% | 5.3\% |
| 40,000.49,999 | 18.2\% | 16.4\% | 15.4\% | 10.9\% | 2.0\% | 10.5\% | 6.1\% | 9.3\% |
| 50,000..59,999 | 24.2\% | 14.8\% | 7.7\% | 10.1\% | 18.4\% | 8.6\% | 7.4\% | 10.2\% |
| 60,000..69,999 | 9.1\% | 13.1\% | 10.3\% | 11.6\% | 22.4\% | 11.4\% | 10.8\% | 11.9\% |
| 70,000..79,999 | 0.0\% | 13.1\% | 15.4\% | 15.5\% | 16.3\% | 15.2\% | 16.2\% | 14.9\% |
| 80,000..89,999 | 3.0\% | 6.6\% | 10.3\% | 7.8\% | 8.2\% | 15.2\% | 11.1\% | 10.1\% |
| 90,000..9,9999 | 6.1\% | 4.9\% | 12.8\% | 7.8\% | 2.0\% | 8.6\% | 9.4\% | 8.1\% |
| 100,000..149,999 | 9.1\% | 9.8\% | 10.3\% | 14.0\% | 10.2\% | 14.3\% | 22.9\% | 16.7\% |
| 150,000+ | 0.0\% | 1.6\% | 2.6\% | 1.6\% | 2.0\% | 0.0\% | 3.0\% | 2.0\% |
| Total | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |

## Salaries by Industry and Size

Charts on this and the following pages show salaries and increases on an industry-by-industry basis with columns representing different sizes of organization within each industry. Entries marked with ' $\#$ ' have almost no chance of being statistically valid. Statistics were limited to salaries in the range of US $\$ 10,000 . . \$ 200,000$ and raises in the range $-30 \% . .30 \%$. No other restrictions were applied (i.e., these charts include a global geography).
Trends in these data were very hard to discern.

| Salary/Raise by Industry \& Size |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $0 . .99$ | 100..499 | 500..999 | 1000+ |
| Accounting | 48,500 3.2\# | 156,928-5.9\# | ---- ---- | ---- ---- |
| Advertising, Public Relations, Communication, or Marketing | 62,143 3.4 | 53,033 12.0\# | ---- --- | 72,500 11.5\# |
| Aeronautical/aerospace | ---- ---- | ---- ---- | 41,494 20.0\# | 80,860 8.6 |
| Architecture (buildings) | 23,552 22.6\# | ---- ---- | ---- ---- | ---- ---- |
| Automotive | ---- ---- | 70,083 7.1\# | 63,853 2.5\# | 78,951 15.3\# |
| Biotechnology | ----- ---- | 82,600 5.9\# | 135,000-2.9\# | ---- ---- |
| Broadcasting/Cable/Video | ---- ---- | ---- ---- | ---- ---- | 78,587 6.5\# |
| Chemical | ---- ---- | 72,000 2.9\# | ---- ---- | 77,938 7.0\# |
| Computer hardware/semiconductor | 123,000 4.2\# | 87,000 4.3\# | 85,000 6.2\# | 84,969 7.0 |
| Construction | 60,000 3.4\# | ---- ---- | ---- ---- | 38,100 3.8\# |
| Consulting and Business Services | 86,227 11.1\# | 46,696 13.0\# | ---- ---- | 82,401 4.5 |
| Defense | 42,919 5.1\# | ---- ---- | ---- ---- | 87,791 6.1 |
| Distribution/Warehousing | ---- ---- | 45,000 12.5\# | 70,866 5.1\# | ---- ---- |
| Education - College or University | 49,184 6.8\# | 62,000 9.6 | 53,108 3.5 | 68,090 5.0 |
| Education - Elementary or Secondary | ---- ---- | ---- ---- | 75,000 10.3\# | 86,000 1.8\# |
| Energy Production or Mining (oil, coal, etc.) | ---- --- | ---- --- | 68,000 17.2\# | 63,933 6.6 |
| Engineering | 43,607 3.7\# | 52,597-8.6\# | ---- ---- | 72,272 9.3 |
| Entertainment | 100,600 17.0\# | 81,520 8.1 | 84,500 9.0\# | 82,209 5.8 |
| Environmental Services | 88,000 3.5\# | ---- ---- | ---- ---- | ---- --- |
| Financial services (all kinds) | 62,702 9.8\# | 95,047 8.9 | 40,136 7.1\# | 87,862 6.6 |
| Food | ---- ---- | ---- ---- | ---- ---- | 42,361 8.8\# |
| GIS/cartography/mapping | 28,969 20.0\# | 15,056 14.3\# | 58,000 5.5\# | ---- ---- |
| Government - Contracting | 70,266 6.0\# | 35,070 7.4\# | 76,000 4.1\# | 86,463 8.1 |
| Government - Military | 130,000 4.0\# | ---- ---- | ---- ---- | 84,522 9.8\# |
| Government - Non-Military | 50,000 6.4\# | 91,765 2.0\# | ---- ---- | 75,227 7.0 |
| Health Care, Medicine | 74,000 6.7\# | 65,244 11.2 | 65,750 2.8\# | 64,792 8.8 |
| Hospitality | 40,000 0.0\# | ---- ---- | ---- --- | 75,000 15.4\# |
| IT Company: Consulting | 51,193 3.6\# | 64,303 7.4 | 155,821 6.7\# | 84,435 6.0 |
| IT Company: ISP/ASP | 69,227 9.1 | 79,274 6.1 | 106,126 14.4\# | 95,002 6.2 |
| IT Company: Other | 59,446-0.9 | 105,454 15.3 | 67,500 3.8\# | 81,199 4.4 |
| IT Company: Security | 100,000 11.1\# | ---- ---- | ---- ---- | 91,125 5.1 |
| IT Company: Software Development | 81,324 10.7 | 70,003 8.2 | 110,000 4.8\# | 80,275 3.1 |
| IT Company: Web development/webmaster | 49,419 3.0 | 90,000 7.1\# | 77,000 19.6\# | 93,400 8.5 |
| Insurance/risk management | ------- | 109,333 7.9\# | ---- ---- | 73,372 4.3 |

(Chart continued on next page)

| Salary/Raise by industry \& Size |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $0 . .99$ | 100.. 499 | 500.. 999 | 1000+ |
| Legal | 59,200 3.5\# | ---- ---- | 52,963 8.0\# | 95,000 10.5\# |
| Library | ---- ---- | ---- ---- | 27,000 8.0\# | ---- ---- |
| Manufacturing | 57,247 3.7 | 37,617 6.4 | 68,500 3.0\# | 70,359 8.7 |
| Not-for-profit | 69,000 0.0\# | 73,906 10.7\# | ---- ---- | 87,500 6.0\# |
| Other, please specify briefly | 63,356 3.2 | 72,333 3.6\# | ---- ---- | 68,549 3.8 |
| Pharmaceuticals | ---- ---- | ---- ---- | ---- ---- | 101,900 1.2\# |
| Publishing | 50,000 11.1\# | ---- ---- | 16,321 7.3\# | 87,333 6.0\# |
| Real Estate | ---- ---- | 16,598 0.0\# | 82,000-16.3\# | ---- ---- |
| Research | 70,000-6.7\# | 101,623 -3.6\# | 54,000 14.9\# | 101,270 2.6 |
| Retail | ---- ---- | 62,296 17.6\# | ---- ---- | 91,458 13.1 |
| Services (other) | ---- ---- | 111,500 12.6\# | ---- ---- | 18,559 9.3\# |
| State or Local Government | 15,400 5.5\# | 64,000 14.3\# | ---- ---- | 75,432 4.0\# |
| Telecommunications | 80,833-4.9\# | 88,032 11.6 | 24,000 0.0\# | 90,164 7.3 |
| Transportation | ---- ---- | ---- ---- | ---- ---- | 87,880 10.6 |
| Travel/Recreation | 45,165 7.4\# | ---- ---- | 79,040 14.3\# | 65,480 6.0\# |
| Utility | ---- ---- | 60,000 3.4\# | ---- ---- | 75,000 15.4\# |
| VAR | 62,333 14.9\# | ---- | ---- ---- | 90,234 7.0\# |
| Wholesale | 88,000 0.0\# | 75,000 5.6\# | ---- ---- | 63,071 15.2\# |

## Salaries by Industry and Experience

This 1.5 page chart shows salaries and increases on an industry-by-industry basis with columns representing different levels of experience. Entries marked with '\#' have almost no chance of being statistically valid. Statistics were limited to salaries in the range of US $\$ 10,000 . \$ 200,000$ and raises in the range $-30 \%$.. $30 \%$. No other restrictions were applied (i.e., these charts include a global geography).
Trends in these data were easier to discern: more experience generally gets higher remuneration.

| Salary/Raise by Industry \& Experience |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1 . .3$ | 4.6 | $7 . .9$ | 10..14 | 15+ |
| Accounting | ---- ---- | ---- ---- | ---- ---- | ---- ---- | 102,714-1.3\# |
| Advertising, Public Relations, Communication, or Marketing | 75,000 17.2\# | ---- ---- | 11,300 2.1\# | 64,833 7.1\# | 66,457 6.9\# |
| Aeronautical/aerospace | 46,300 2.7\# | ---- --- | 61,498 16.8\# | ---- --- | 107,500 4.9\# |
| Architecture (buildings) | 32,705 16.7\# | 14,399 28.6\# | ---- ---- | ---- ---- | ---- ---- |
| Automotive | ---- ---- | ---- ---- | 59,959 5.8\# | 83,623 14.7\# | ---- ---- |
| Biotechnology | ---- ---- | 83,200 4.0\# | ---- ---- | 82,000 7.9\# | 135,000-2.9\# |
| Broadcasting/Cable/Video | ---- ---- | ---- ---- | 73,174 10.6\# | ---- ---- | 84,000 2.4\# |
| Chemical | ---- ---- | ---- ---- | ---- ---- | 72,000 2.9\# | 77,938 7.0\# |
| Computer hardware/semiconductor | ---- ---- | 46,000 15.2\# | 67,466 3.5\# | 82,166 5.4 | 102,189 6.4 |
| Construction | 25,893 1.5\# | ---- ---- | 23,675 6.8\# | 64,733 3.1\# | 60,000 3.4\# |
| Consulting and Business Services | ---- ---- | 29,332 10.0\# | 61,417 9.2 | 103,322 1.9\# | 89,921 6.9 |
| Defense | ---- | 61,000 1.7\# | 91,000 5.8\# | 80,000 5.0\# | 70,932 7.7\# |
| Distribution/Warehousing | 45,000 12.5\# | ---- ---- | ---- ---- | 74,500 4.6\# | 63,600 6.0\# |
| (Chart continued on next page) |  |  |  |  |  |

## Salary/Raise by Industry \& Experience

| Salary/Raise by Industry \& Experience |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1 . .3$ | $4 . .6$ | $7 . .9$ | 10..14 | 15+ |
| Education - College or University | 57,025-0.1\# | 49,025 6.5 | 72,227 9.7 | 72,569 3.2 | 71,659 4.1 |
| Education - Elementary or Secondary | ---- ---- | ---- ---- | ---- ---- | 75,000 10.3\# | 86,000 1.8\# |
| Energy Production or Mining (oil, coal, etc.) | ---- ---- | 21,423 27.3\# | 66,541 14.9\# | 67,992 1.9 | 85,000 3.7\# |
| Engineering | 58,653 3.3\# | 33,899 4.1\# | ---- ---- | 87,125 6.8 | 73,587 0.0\# |
| Entertainment | 54,000 12.5\# | 40,000 14.3\# | 76,300 10.5\# | 75,216 7.5 | 116,563 4.2 |
| Environmental Services | ---- ---- | ---- ---- | ---- ---- | 88,000 3.5\# | ---- ---- |
| Financial services (all kinds) | ---- ---- | 98,916 7.6 | 85,714 7.0 | 79,023 7.3 | 80,622 6.6 |
| Food | 42,361 8.8\# | ---- ---- | ---- ---- | ---- ---- | ---- ---- |
| GIS/cartography/mapping | 28,969 20.0\# | 58,000 5.5\# | 15,056 14.3\# | ---- ---- | ---- ---- |
| Government - Contracting | ---- ---- | 50,221 11.0\# | 65,792 6.6\# | 68,666 4.9 | 96,365 7.3 |
| Government - Military | ---- ---- | 56,066 9.1\# | 75,500 8.3\# | 122,000 11.9\# | 130,000 4.0\# |
| Government - Non-Military | 57,000 9.6\# | ---- ---- | 58,416 18.6\# | 84,835 0.5 | 71,582 8.3\# |
| Health Care, Medicine | 42,000 16.7\# | 44,071 10.5\# | 69,500 7.8 | 72,875 7.7 | 92,759 3.1\# |
| Hospitality | 40,000 0.0\# | ---- ---- | ---- ---- | ---- ---- | 75,000 15.4\# |
| IT Company: Consulting | 63,853 13.9\# | 57,242 5.0 | 85,810 7.9 | 59,352 1.9 | 114,789 8.7 |
| IT Company: ISP/ASP | 51,904 4.6 | 56,825 9.1\# | 95,451 10.4 | 86,363 7.9 | 103,000 2.0\# |
| IT Company: Other | 40,492 4.0 | 72,822-1.3 | 80,340 7.7 | 83,264 6.2 | 106,729 5.1 |
| IT Company: Security | ---- ---- | -------- | 90,250 4.1\# | 94,666 7.8\# | ---- --- |
| IT Company: Software Development | 50,389 3.0\# | 69,389 2.5 | 76,695 14.1 | 89,295 4.7 | 98,754 4.4\# |
| IT Company: Web development/webmaster | 63,750 1.5\# | 49,087 8.8 | 90,333 7.5\# | 84,000 5.1 |  |
| Insurance/risk management | 51,000-2.1\# | ---- ---- | 78,500 3.3\# | 83,404 11.1\# | 103,864 6.7\# |
| Legal | ---- ---- | ---- ---- | 73,981 9.2\# | ---- ---- | 59,200 3.5\# |
| Library | ---- ---- | 27,000 8.0\# | ---- ---- | ---- ---- | ------- |
| Manufacturing | ---- ---- | 36,449 12.1 | 48,244 9.8 | 60,948 7.1 | 74,396-0.3 |
| Not-for-profit | 48,000 0.0\# | 69,206 7.8\# | 90,000 8.4\# | 99,400 5.7\# | 85,000 3.7\# |
| Other, please specify briefly | ---- ---- | 30,484 11.9\# | 34,263-7.4\# | 66,937 5.3 | 80,431 3.1 |
| Pharmaceuticals | ---- ---- | ---- ---- | ---- ---- | ---- ---- | 101,900 1.2\# |
| Publishing | 16,321 7.3\# | 81,000 2.5\# | 96,000 12.9\# | 67,500 6.8\# | ---- ---- |
| Real Estate | 16,598 0.0\# | ---- ---- | ---- ---- | ---- ---- | 82,000-16.3\# |
| Research | ---- ---- | 77,870 4.2\# | 76,237 4.0\# | 106,030-0.1 | 97,500 0.1\# |
| Retail | ---- ---- | 83,790 28.6\# | 65,129 11.7\# | 94,000 11.6\# | 115,000 9.5\# |
| Services (other) | ---- ---- | ---- ---- | 18,559 9.3\# | 111,500 12.6\# | ---- ---- |
| State or Local Government | 70,000 4.5\# | ---- ---- | 47,232 8.3\# | ---- ---- | 94,000 2.2\# |
| Telecommunications | ---- ---- | 64,695 11.1 | 63,415 14.2\# | 85,944 5.6 | 105,317 3.3 |
| Transportation | ---- ---- | 74,761 11.5\# | ---- ---- | 105,000 14.1\# | 97,000 5.4\# |
| Travel/Recreation | 45,165 7.4\# | ---- --- | 67,000 1.5\# | 64,721 8.2\# | 79,040 14.3\# |
| Utility | ---- ---- | ---- ---- | 75,000 15.4\# | 60,000 3.4\# | ---- ---- |
| VAR | ---- ---- | 55,000 19.8\# | 85,000 18.1\# | 68,617 6.9\# | ---- --- |
| Wholesale | ---- | ---- | 75,000 5.6\# | ---- ---- | 75,535 7.6\# |

## Opinions and Comments

The survey affords a rare opportunity to query professionals about ideas and on a variety of subjects. This section describes the results.

## Why Did Salary Change?

Respondents were asked why their salary changed. They could each choose several items from a list and also enter extra information. Almost two-thirds believe that hard work and/or good work ethic was the cause of their salary change. Just over a third believed tangible results (stable environment, achieving goals) was responsible. Here's the whole chart:

| Why Salary Changed |  |  |  |
| :---: | :---: | :---: | :---: |
| Percent | Reason | Percent | Reason |
| 36.8 | Did not receive at least 4\% raise | 2.3 | Stayed in position (vs. 'quitting') |
| 22.3 | Performance | 2.0 | Used a salary survey to educate your management/HR |
| 22.0 | Achieved goals | 2.0 | Upgraded skills via education |
| 16.1 | Annual raise | 2.0 | Threatened to leave/quit |
| 15.0 | Increased responsibilities | 1.8 | Corporate success/profit sharing |
| 14.0 | Worked hard with a positive attitude and ethic | 1.5 | Longevity |
| 6.9 | Maintained a stable network or system environment | 1.2 | Departure of others |
| 6.6 | Became involved in a high-profile project | 1.2 | Other |
| 6.3 | Changed (reclassified) position | 1.2 | Went into consulting |
| 6.0 | Changed employers/job | 1.2 | Collective bargaining/union |
| 5.3 | Client/customer satisfaction | 1.1 | Raise to combat other job offer(s) |
| 5.0 | Cost of living adjustment/COLA | 1.1 | Publicized achievements |
| 4.4 | Long time without raise | [6] | Salary freeze lifted |
| 4.2 | Promotion | [6] | Improved speaking, writing, and/or presentation skills |
| 3.8 | Grew into a more active planning/management role | [5] | Probation ended |
| 3.8 | Standard/across-the-board raise |  | Relocation within same company |
| 3.8 | Requested/negotiated salary increase | [4] | Earned a college/advanced degree |
| 3.0 | Changed to management | [3] | Contractual |
| 2.9 | Increased hours/overtime | [1] | Corporate buyoutlakeover |
| 2.6 | Earned a certification (i.e., SANS/GIAC, MCSE, CCNA, CISSP, etc.) |  |  |

## What Do Admins Like About Their Jobs?

What do admins like about their jobs? It turns out that the \#1 property cited by respondents was a casual work environment, cited by over one-third of those who answered this question. Second place was 'challenge,' with on-the-job learning, co-workers, and flexibility rounding out those above $20 \%$. The table below shows the entire set of standard responses.

| Favorite Job Properties |  |  |  |
| :---: | :---: | :---: | :---: |
| Percent | Property | Percent | Property |
| 39.3 | Casual dress, atmosphere, environment | 9.5 | Telecommuting |
| 36.2 | Challenge | 8.5 | Standard workweek |
| 28.8 | Learning on the job | 7.9 | Employment in current economic climate |
| 27.1 | Co-workers | 7.1 | Family friendly |
| 22.1 | Flexible working environment, freedom | 6.3 | Pension/retirement program |
| 21.3 | Flexible hours | 5.6 | Vacation/sabbatical policy |
| 19.3 | Job satisfaction | 5.2 | Comp time |
| 19.0 | Responsibility | 5.0 | No on-call/pager/overnight/weekend |
| 18.8 | Salary/compensation | 4.8 | Walled offices |
| 18.7 | Benefits | 4.6 | Free or cheap food, drink at work |
| 18.0 | Location/commute time | 4.4 | Subsidy for cell, home telecomm, hardware |
| 16.9 | Stability, job security | 3.4 | Transportation (company car, free parking, bus subsidy, carpooling, etc.) |
| 16.3 | Projects | 3.4 | Social activities |
| 15.6 | Technology, advanced equipment, fast internet | 2.9 | Enlightened policies |
| 15.5 | Fun | 2.9 | Gym/pool/health club membership (or on-site) |
| 15.1 | Managementboss | 2.4 | Stock purchase, grant plans |
| 14.6 | Respect, trust | 2.2 | Discounts, free merchandise |
| 14.4 | Small company environment | 2.2 | Facilities, phys. environment |
| 13.5 | Academic environment | 2.2 | No overtime |
| 13.2 | Future potential | 1.9 | Smoking policy |
| 12.7 | Education, tuition, training, incl. conferences | 1.5 | Travel, cruises |
| 12.3 | Culture | 1.2 | Movies, entertainment |
| 11.2 | Special hardware (e.g., laptop, supercomputer) | [7] | Child care |
| 11.1 | Specific technology that you use (e.g., MS, Opensrc) |  | Special rewards (e.g., cruises) |
| 11.0 | Self-determination (of all kinds) | [7] | Short workweek |
| 11.0 | Sense of achievement | [6] | Sabbaticals |
| 10.2 | Dynamic environment |  | Dogs allowed at company |
| 10.2 | Variety of tasks | [3] | Green card assistance |

The 'Other' category did not yield any replies that appeared more than once other than "It's nice having a job."

## What Do Admins Dislike About Their Jobs?

What about the other side of the coin? What are the most disliked features of sysadmin jobs? Both compensation and corporate management issues! Look at the breakdown (bearing in mind respondents could cite more than one dislike). Here are the top management issues:

- Bureaucracy/paperwork at $23.9 \%$
- Management [in]competence at $14.8 \%$
- Not enough staff at $14.7 \%$
- Leadership issues/poor vision at $14.0 \%$
- Lack of leadership at $13.5 \%$
- Vision, future planning (lack thereof) at $10.6 \%$
- Poorly communicated priorities at $10.3 \%$
- Politics at 9.5\%
- Conflicting demands at 9.4\%
- Inability to see reality at $8.8 \%$
- Morale at $8.8 \%$

Here are the top compensation issues:

- Bad compensation at $22.2 \%$
- Compensation/payscale at $15.6 \%$
- Infrequent salary increases at $14.6 \%$
- Salary, benefit issues at $14.2 \%$
- Budgets, funding at $11.4 \%$
- Benefits at 9.8\%
- Infrequent salary reviews at $9.1 \%$
- Overtime/on-call compensation at $8.8 \%$


## Worst Job Properties

| Percent | Property | Percent | Property |
| :---: | :---: | :---: | :---: |
| 23.9 | Bureaucracy, paperwork, | 6.4 | Cost of living |
| 22.2 | Bad compensation | 6.3 | Outsourcing |
| 15.6 | Compensation/payscale | 5.9 | Human resource dept. issues |
| 14.8 | Management competence | 5.9 | Corporate stability, layoffs |
| 14.7 | Not enough staff | 5.9 | Coping with growth or force reduction |
| 14.6 | Infrequent salary increases | 5.6 | Project management |
| 14.2 | Salary, benefit issues | 5.5 | Coworkers |
| 14.0 | Leadership issues, poor or poorly communicated vision | 5.1 | Management stability |
| 13.8 | Bad infrastructure | 5.1 | Lack of accountability |
| 13.5 | Lack of leadership | 4.8 | Hiring issues (incl. nepotism) |
| 12.6 | Excessive on-call time | 4.8 | Education/training issues |
| 11.4 | Poor respect or low value placed on my job; poor visibility in org. | 4.7 | Attire/dress code policies |
| 11.4 | Budgets, funding | 4.5 | No conference attendance |
| 11.2 | Ceiling on advancement or low advancement speed | 4.5 | Bad retirement plan |
| 10.8 | Lack of opportunity | 4.4 | Unrealistic job performance expectations |
| 10.6 | Vision, future planning (lack thereof) | 4.1 | Work hours |
| 10.3 | Poorly communicated or differentiated priorities | 4.1 | Time off/vacation issues |
| 10.3 | Boredom | 4.0 | Compliance (e.g., SOX) |
| 9.8 | Benefits (in general) | 3.9 | Culture |
| 9.8 | Lack of training/cont. ed. | 3.9 | Location |
| 9.6 | Hardware isn't up to snuff | 3.3 | Inflexibility |
| 9.5 | Cubicles/offices/noise | 3.1 | Parking |
| 9.5 | Politics | 2.9 | Ethical issues |
| 9.4 | Conflicting demands | 2.8 | Computer security issues overwhelming |
| 9.1 | Infrequent salary reviews | 2.5 | Customers/clients |
| 9.0 | On-call or pager/mobile phone issues | 2.5 | Keeping up with advances |
| 8.8 | Inability to see reality | 2.0 | Travel |
| 8.8 | Overtime/on-call compensation | 1.5 | Specific vendors (or lack of specific vendors) |
| 8.8 | Morale | 1.5 | Discrimination, tolerance issues (age, race, creed, orientation, etc.) |
| 8.6 | Interruptions | [7] | Safety |
| 7.6 | Technical issues (outdated equipment, 'Microsoft culture') | [5] | Pet-at-work policies |
| 7.0 | Commute | [4] | Smoking policy |
| 6.7 | Lack of trust | [1] | Union issues |
| 6.6 | Lack of peers |  |  |

## Survey Comments

Many people entered comments in reply to an open-ended question about the state and future of the system administration profession. They have been partitioned into sections with related topics:

- Love the profession
- Not so much love for the profession
- Outsourcing
- Insight
- Requests

The smaller number of comments (compared to last year) were generally quite insightful. They have been included below with slight editing for typesetting and diction.

## Love the profession

I love my job and profession.
Love the field.
System administration future is very wonderful and highly tasking.
I changed jobs last year, due to the lack of value placed on experience and their "Windows Centric" attitude. I love this Organization, I will be rejoining soon, and as long as there is one Unix computer in the world, I will be doing this till the end of time.

## Not so much love for the profession

I see system administration as a job, not a career.
System administration is currently disgusting. More and more people are in the game who know so little. Their knowledge is based on "how" and not "why". A six week course and a piece of paper, and someone is deemed competent to administer a large system. When new challenges and infrastructure arrive, they flounder. They fight change, and stick with brands they know due to fear, ignorance or both. Costs go up, staffing numbers go up, and overall quality goes down. It's an industry I used to be proud to be a part of. Today l'm just disgusted.

I think system administration is still very much misunderstood. So few people outside of IT recognize the need or the responsibilities [that] system administrators take on.

Sys Admins are like firefighters, always putting out fires created by others, but very rarely getting recognized for putting them out. Because of this trend, I don't see system administration becoming a desirable career in the future. Very rarely, a system administrator gets a sense of accomplishment.

To be honest, system administrators are just "power users" that are patient enough to read the documentation. There is nothing special about what SAs do, I should have seen this a couple of years ago. Mentoring would be nice but there is a severe case of nepotism at my current employer. System Administrators (geeks in general) have a way of keeping others down for self preservation. There is no future in System Administration unless you know someone or if you're willing to brown nose.

## Outsourcing

With the continuing growth of remote management, US domestic system administration seems to be taking a substantial hit. This year, my company has allowed attrition to cut the size of my UNIX system administration department in half and denied all US overtime, while growing an India-based sysadmin staff substantially. The result has been increased workload for US staff, which has resulted in decreased visibility, diminished project involvement, and overwork since much of the hands-on job has not changed yet.

I foresee overseas corporations hiring U.S.-based IT personnel to take advantage of a weak dollar and higher skill levels. I believe that there is beginning to be a realization that offshore outsourcing does not generally provide a cost-effective quality of service.

Get ready to move abroad! Never had a passport until now and seriously considering moving (relocating) aboard in the current off shoring climate.

More than half of my organization is being outsourced. Things will not be rosy forever.
My employer is focused on indiscriminate cost take-out. There exists no investment in technology. Focus is on getting jobs out of the United States. The employer has no regard for its employees. The condition of professional employment within Information Technology within the United States - specific to my current employer - is not bright.

I think this work will be outsourced to other companies without regard to quality.
Companies need to slow down with outsourcing! It's just not productive!

## Insight

A good sysadmin is a smart, self-motivated professional who wants to do the right thing. Leading such an individual is a matter of communicating boundaries (direction, budget, risk tolerance) and stepping out of the way.

I work in a matrixed environment, i.e., l'm responsible for [...] some functions of operating system only. Other teams are responsible for the applications. I don't do ID management, some security upgrades, or have any decision-making abilities relative to the automation and security tools l'm required to use. It's a miserable environment. Simple tasks (creating/deleting ID's, applying security upgrades) are almost unbelievably frustrating because so many teams are involved in even a simple process. I would much prefer a "generalist" approach, where I have control over both the $O / S$ and the application.

Bringing system administration into alignment with security and audit would be a huge step in the right direction throughout the industry.
l'm frankly surprised at how much closed source software can affect the psychology of an organization. These people think in black boxes.

Good system administration is vital for good work environment; benefits are there for both employers and employees. Use of advances in technology and management only makes work easier and interesting.

As one of the few women system administrators, I have found it difficult to combine working with being the mom to a 3 year old. After giving birth I was out of work for 2 years before I could find a SA job (I had a BSCS and 7 years exp at this point) which would allow me to work part time and still do something almost at my previous skill and pay level.

Employers need to be sensitive to the flex-time (including part time and work from home) needs of women in their child-bearing years if they expect to have a gender-diverse work force.

Too many job postings/managers presume that sys admins are dummies. Too many sys admins ARE dummies.

I worry that people are not staying in system administration long enough to become very senior. Every year it seems we have to lower our standards to hire "senior" admins. People are getting burned out or moving to other fields like DBA, developer, etc.

They know they need us, but they don't know when to let up on the demands. The [redacted] industry is, by its very nature, stressful. The most important thing, however, is the relationships with employees and their employer. Understanding what is important to each party should allow us to come to a point of agreement. Lack of communication is the greatest struggle. Communicate with us.

While I expect this situation to change as we transition to a fully remote-managed environment, and syadmins remain in demand according to the number of recruiting calls I receive, the role of US
sysadmins seems to be increasingly relegated to button-pushing and hardware maintenance rather than technology decisions and implementation.

The worst job aspect is the "plumbing perception". Users and management see IT infrastructure as plumbing that should "just work" and either do not care or understand what is required to maintain that performance level. Additionally, management often shows little interest except when a fault occurs.

## Requests

I would like to see more questions about generalist vs specialists. I believe it is more difficult to be a generalist than 10 years ago. System Administrators need to know about various tools: Veritas VCS, Netbackup, Legato, SAN management, and vendor specifics to compete in the job market. You no longer see a sys admin who is SYS V, BSD or Linux based. System Administrators are now required to know different vendor toolsets.

I would like to see this survey address some environmental issues of the workplace. How much time do you spend working in a server room, performing manual labor (cabling, moving/unboxing servers), travel time to remote data centers. Also what people's normal work environment consists of cubicles/office. Another thing I would like to see is what percentage of each person's communication is via phone, email, face-to-face, other online method. And what percentage of the day is spent on reading email, monitoring, dealing with interruptions, fighting fires, attending meetings, working on projects, not working (socializing) etc.

I would like to see SAGE work with academia to establish more formal academic training (and, secondarily, research) as a bachelor's or postbaccalaureate degree specifically in system administration, as opposed to computer science, and/or develop a professional licensing or certification program which it would then work to get recognized widely in official situations. That licensing or certification program would requiring significant components of tested skills and knowledge, long-term education, professional ethics, and possibly a period of apprenticeship and mentoring, comparable to the CPA licensing or legal bar admission processes. This would distinguish those with dependably solid backgrounds from more novice sysadmins on the job market, as well as to create fellowship among sysadmins and help collaboratively train the newer members of our profession.

## Summary

A technically challenging profession that pays its entry people as much as US $\$ 50,000 /$ year is an interesting one. System administration appears to be a fine way to make a living. Experience, education, and enhanced skillsets seem to be the growth path of choice (at least as far as increasing the midpoint of the salary bell curves goes).

## Unemployment Survey

## Introduction

Those respondents who were employed for less than 26 weeks were asked to answer a different set of questions that comprise the second "SAGE Unemployment Survey."
A total of 77 respondents submitted valid sets of responses. This is but $8.6 \%$ of total respondents. One might conclude that under $9 \%$ of admins are having serious unemployment problems, but odds seem more likely that other unemployed admins simply did not participate in the survey.

## Did They Regain Employment?

Current Status
As of the time they completed the survey, $63.6 \%$ (2005-2006: $72.3 \%$ ) of the group had regained full-time employment while an additional 19.5\% (2005-2006: 19.8\%) had found part-time employment; only $16.9 \%$ (2005-2006: 17.8\%) remained unemployed (vs. $45.4 \%$ in 2003). The chart on the right shows the breakdown.

## Focus

Respondents were asked about their primary admin focus; results are shown on the right. Slightly more generalists and server managers seem to be unemployed than the employed population as a whole.


## Geography

What an interesting spread! India's participation exceeds that of the USA's.

| Unemployed Sysadmin Ceography |  |  |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- | :--- |
| Country | \% Resp. | Country $\%$ Resp. |  | Country | \% Resp. |
| India | $27.3 \%$ | UK | $2.6 \%$ | Ghana | $1.3 \%$ |
| United States | $23.4 \%$ | Albania | $1.3 \%$ | Philippines | $1.3 \%$ |
| South Africa | $11.7 \%$ | Argentina | $1.3 \%$ | Slovakia | $1.3 \%$ |
| Malaysia | $6.5 \%$ | Australia | $1.3 \%$ | South Georgia \& the South Sandwich Islands | $1.3 \%$ |
| Canada | $2.6 \%$ | Bermuda | $1.3 \%$ | Sri Lanka | $1.3 \%$ |
| Nigeria | $2.6 \%$ | Chile | $1.3 \%$ | Sweden | $1.3 \%$ |
| Portugal | $2.6 \%$ | China | $1.3 \%$ | Yemen | $1.3 \%$ |
| Singapore | $2.6 \%$ | Egypt | $1.3 \%$ |  |  |

The traditional concentration of technical jobs in a given area seems to map well onto the locations of those unemployed, except the Bay Area, which seems a bit low. Note that these are percentages of respondents, not percentages of unemployment in those cities.

| Metropolitan |  |  |  | Locations |
| :--- | ---: | :--- | :--- | ---: |
| Where | \% Resp. | Where | \% Resp. |  |
| N/A | $69.8 \%$ | Dallas, TX Metro Area | $1.9 \%$ |  |
| San Francisco/San Jose/Silicon | $5.7 \%$ | Chicago, IL Metro Area | $1.9 \%$ |  |
| Valley, CA, Area | $3.8 \%$ | Washington, DC, Metro Area | $1.9 \%$ |  |
| Atlanta, GA Metro Area | $3.8 \%$ | London, England Metro Area | $1.9 \%$ |  |
| Los Angeles/Orange Co., CA, Metro | $3.8 \%$ | Ottawa, ON, Metro Area | $1.9 \%$ |  |
| Area | $1.9 \%$ | Toronto, ON, Metro Area | $1.9 \%$ |  |
| Research Triangle, NC |  |  |  |  |
| Boston, MA, Metro Area |  |  |  |  |

## Education

These respondents' learning techniques are somewhat similar to the employed group but with some significant differences. $65.3 \%$ taught themselves "somewhat" or "a lot" vs. $87.6 \%$ of those employed. Likewise, $65.0 \%$ cited "On the job" training vs. $88.9 \%$ of those employed. $45.5 \%$ learned in a degree program at a university vs. $34.4 \%$ of those employed. Certification programs figured prominently for $39.0 \%$ vs. $28.7 \%$ of those employed. $51.9 \%$ of the unemployed learned 'not at all' from conferences/commercial training vs. $42.4 \%$ for the employed group.

| How Admins Learn |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Learning Methods | Not at all | A bit | Somewhat | A lot |
| Taught myself (textbooks, web, practice, etc.) | 15.6\% | 9.1\% | 15.6\% | 59.7\% |
| On the job | 22.1\% | 13.0\% | 20.8\% | 44.2\% |
| University/college education (CS/IS/IT degree program) | 37.7\% | 16.9\% | 22.1\% | 23.4\% |
| Certification program courses | 48.1\% | 13.0\% | 18.2\% | 20.8\% |
| Mentor of any kind | 45.5\% | 15.6\% | 19.5\% | 19.5\% |
| Vendor-specific training courses | 44.2\% | 22.1\% | 22.1\% | 11.7\% |
| Conferences/commercial training | 51.9\% | 19.5\% | 22.1\% | 6.5\% |
| Non-degree tech school, college, or university courses | 61.0\% | 15.6\% | 18.2\% | 5.2\% |
| Military | 84.4\% | 3.9\% | 10.4\% | 1.3\% |
| Other | 96.1\% | 2.6\% | 1.3\% | 0.0\% |

The unemployed respondents have almost identical educational backgrounds to those who are employed.
Highest Education Highest Relevant Education


Unemployed respondents had strong relevant post-high-school training with almost threequarters citing computers and related subjects.

## SAGE Level

Those unemployed were spread out among all the SAGE Levels this year.

Post-High-School Subjects



## Industries

IT companies and education lead the way for industries of the unemployed (though the sample was very small this year).

| Industries of the Unemployed |  |  |  |
| :---: | :---: | :---: | :---: |
| Type | \% Resp. | Type | \% Resp. |
| IT Company: Software Development | 11.7\% | Services (other) | 2.6\% |
| Construction | 7.8\% | Government - Non-Military | 1.3\% |
| Education - College or University | 7.8\% | Telecommunications | 1.3\% |
| Accounting | 6.5\% | Trave/Recreation | 1.3\% |
| Other, please specify briefly | 5.2\% | Transportation | 1.3\% |
| IT Company: Consulting | 5.2\% | Wholesale | 1.3\% |
| IT Company: Web development/ webmaster | 5.2\% | Advertising, Public Relations, Communication, or Marketing | 1.3\% |
| IT Company: Other | 5.2\% | Architecture (buildings) | 1.3\% |
| Financial services (all kinds) | 5.2\% | IT Company: ISP/ASP | 1.3\% |
| Computer hardware/semiconductor | 3.9\% | Defense | 1.3\% |
| Human resources/human capital/recruiter | 2.6\% | Manufacturing | 1.3\% |
| IT Company: Security | 2.6\% | Education - Elementary or Secondary | 1.3\% |
| Consulting and Business Services | 2.6\% | Publishing | 1.3\% |
| Not-for-profit | 2.6\% | Food | 1.3\% |
| Engineering | 2.6\% | Real Estate | 1.3\% |
| Entertainment | 2.6\% |  |  |

## Technical Associations

Unemployed respondents joined technical associations at a slightly lower rate than their counterparts and generally felt they were less helpful (same as in 2003).

| Technical |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Asshs/Rated Utility |  |  |  |
| Organization | Do not belong | Belong |  <br> helpful |  <br> very helpful |
| USENIX | $87.0 \%$ | $1.3 \%$ | $5.2 \%$ | $6.5 \%$ |
| A local user group | $77.9 \%$ | $9.1 \%$ | $7.8 \%$ | $5.2 \%$ |
| IEEE | $89.6 \%$ | $1.3 \%$ | $6.5 \%$ | $2.6 \%$ |
| SANS | $92.2 \%$ | $0.0 \%$ | $5.2 \%$ | $2.6 \%$ |
| SAGE | $83.1 \%$ | $5.2 \%$ | $9.1 \%$ | $2.6 \%$ |
| ACM | $87.0 \%$ | $6.5 \%$ | $5.2 \%$ | $1.3 \%$ |

## Certifications

These respondents generally held the same opinions about certifications as those who filled in the other part of the survey.

## Value of Certifications



Weeks Unemployed

## Unemployment Duration

The median unemployment period was 26 weeks - six months. The mean was 31.9 weeks, with a standard deviation of 9.3 weeks. Only a few respondents were out for an entire year.


## Job Hunting Techniques

How did respondents go about finding a new job? The chart on the right shows some of the schemes.

| Job Finding Methodology |  |
| :---: | :---: |
| Means | \% Resp. |
| Web | 75.3 |
| Personal networking | 50.6 |
| Newspaper | 45.5 |
| Recruiters | 42.9 |
| TV | 9.1 |
| Radio | 3.9 |

## Unemployment Hardships

Respondents were asked what hardships they might endure in order to get a job. Most, of course, are now employed.

- Extended commute bothered only $26 \%$ of the respondents
- 'On call' work was onerous to $37.7 \%$ (half again as many as 2005-2006)
- $40.3 \%$ would not relocate
- $46.8 \%$ would not take a part-time job
- A $10 \%$ pay cut was acceptable only to $42.9 \%$
- A $25 \%$ pay cut was acceptable to cut only to $19.5 \%$ (double 2005-2006)
- Only $6.5 \%$ could stand a $50 \%$ pay cut.

Of course, most already know what they achieved, so these numbers might indicate a bit more intolerance than reality.

| What Admins WFII Do to Gain Employment |  |  |
| :--- | :--- | :--- |
| Actions | No | Yes |
| Are/were you willing to extend your commute to get a job? | $26.0 \%$ | $74.0 \%$ |
| Are you employed now? | $27.3 \%$ | $72.7 \%$ |
| Are/were you willing to take a job requiring that you be on-call outside work hours? | $37.7 \%$ | $62.3 \%$ |
| Are/were you willing to relocate to get a job? | $40.3 \%$ | $59.7 \%$ |
| Are/were you willing to take a part-time job? | $46.8 \%$ | $53.2 \%$ |
| Are/were you willing to take a 10\% paycut (relative to area) to get a job? | $57.1 \%$ | $42.9 \%$ |
| Are you more of a people manager than an individual contributor? | $62.3 \%$ | $37.7 \%$ |
| Are/were you willing to take a $25 \%$ paycut (relative to area) to get a job? | $80.5 \%$ | $19.5 \%$ |
| Are/were you willing to take more than a 50\% paycut (relative to area) to get a job? | $92.2 \%$ | $7.8 \%$ |
| Are/were you willing to take a 50\% paycut (relative to area) to get a job? | $93.5 \%$ | $6.5 \%$ |

Respondents spend a mean of 11.3 (vs. 2005-2006: 7.9; 2003: 19.2) hours/week job-hunting, with a median of 5 hours/week. It is almost as if it wasn't so hard this year to find a position.

Weekly Hours Job-Hunting


## About SAGE: A USENIX Special Interest Group

SAGE is a Special Interest Group of the USENIX Association. Its goal is to serve the system administration community by:

- Offering conferences and training to enhance the technical and managerial capabilities of members of the profession
- Promoting activities that advance the state of the art or the community
- Providing tools, information, and services to assist system administrators and their organizations
- Establishing standards of professional excellence and recognizing those who attain them

For a full list of SAGE benefits, check out http://www.sage.org/about/benefits.html.

