ANNUAL SAGE SALARY SURVEY FOR 2003

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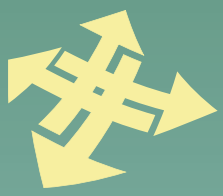

SAGE

The People Who Make IT Work

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SAGE Annual Salary Survey for 2003

Introduction

Salary surveys are primary components of the efforts to advance the status of computer 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 technical group of the USENIX association whose goal is to advance the state of system administration. SAGE is The Professional Association for Computer Administrators.

The salary survey for the year 2003 was administered during May through July 2004 and garnered 4,276 valid responses: 4,060 individuals employed more than half the year and 216 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 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, future of system administration, and advice to newcomers.

A Note on Nomenclature

This year's survey generated some contention as respondents wrestled with the nomenclature surrounding the term 'system administrator.' In some circles, this is a generic term that covers all those people who care for a computer (security folks, database people, networkers, etc.). In others, it is a carefully delineated area from which many wish to distinguish themselves. This was clear when people began asking if the survey was 'going to be applicable to them.'

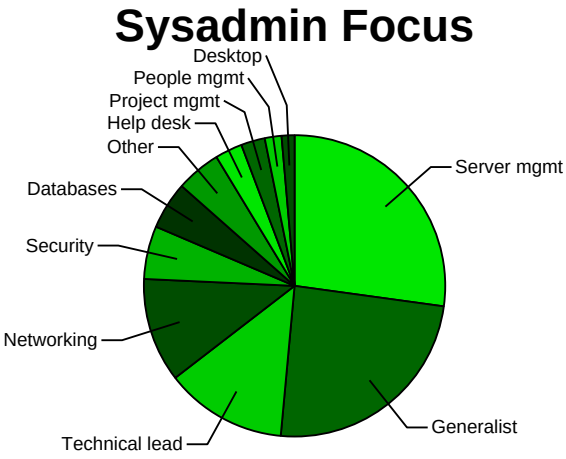
The survey was intended to include all those people who might be lumped into the general field of 'computer support' or 'user support.' Next year we'll try to do a better job of being inclusive while enabling people to distinguish their particular career path (for salary comparison purposes).

Summary

Of the 4,060 valid respondents, 95.4% were males and 4.6% were females. Previous surveys saw 93.0% (2002) and 88.4% (2001) males. It is unknown why the relative number of responding males is increasing.

92.8% of the individuals worked 35 or more hours weekly, the same percentage as claimed to work fulltime. 7.2% worked less than 35 hours/week.

The set of respondents broke out into several different types of jobs: Databases, Desktop, Generalist, Help desk, Networking, People mgmt, Project mgmt, Security, Server mgmt, Technical lead, and 'Other.' The chart on the right shows the breakdown of the respondents.



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 greater than 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. Likewise, the few with annual salaries less than US$10,000 are generally omitted as they must reflect some compensation scheme outside the mainstream.

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 (i.e., 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.

Despite economic doldrums, the average of all the salary changes (including the negative ones) for 2003 across full-time workers world-wide was plus 10.68% (2002: 8.15%) when calculated for annualized salaries. 785 respondents (23.2%; 2002: 24.0%) saw no salary change or reduced their salary. Of the 68.8% (2002: 54.5%) who increased their salaries 0-30%, the mean increase was 10.95% (2002: 8.88%).

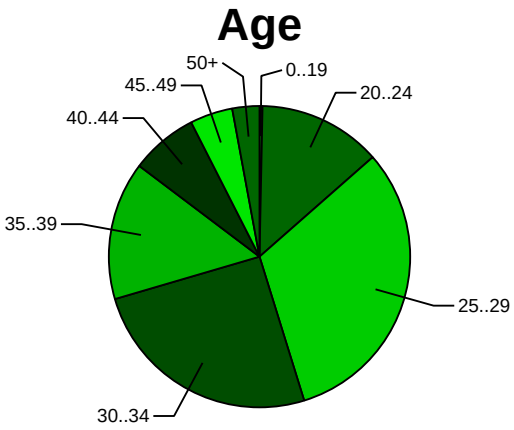
The average reported salary for the 3,004 respondents who reported using US dollars as their currency was $66,557 (down from last year's $67,675): $66,612 for males (down from 2002's $67,920) and $65,432 (up from 2002's $64,946) for females. The overall median was $62,500 (down from 2002's $65,000) and coincided with the median for all males. The female median was slightly higher at $65,000, up from 2002's $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 the 2004 salary survey in April and May of 2005. See http://www.sage.org for details.

Demographics

4,060 individuals completed valid employment surveys this year (plus 216 more who completed the new 'unemployment' survey). They completed a comprehensive questionnaire on the world wide web with over 80 questions, including:

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



Age and Experience

It has been said in the past that system administration is a young person's game. The pie-chart above shows the concentration of admins in various age groups. 13.5% of the respondents were 24 years of age or younger; 29.6% were 35 or older. 56.9% were in the 'golden middle' that includes the ages 25..34. It's easy to observe the concentration in the 25-34 age group. The smaller number of under-25 suggests that fewer admins are moving into the field or that admins are staying in school. Of course, other explanations abound, especially since the dot-com boom might have inflated the 25-29 age group.

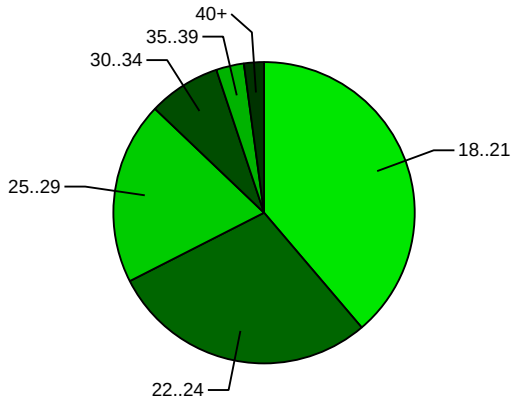
The table on the right compares experience. Several respondents (12.9%) entered the field at age 30 or later. The chart on the right has its columns normalized to 100% for easy comparison. Note that people must be entering the field at other times than graduation from post-secondary school, since many older admins have experience much less than 22-23 years subtracted from their age.

Age vs. Years Experience

Age	0..3	4..5	6..9	10..15	16..20	21+	Total
0..24	50.0%	21.6%	3.7%	0.0%	0.0%	0.0%	13.5%
25..29	32.3%	48.5%	44.7%	7.5%	0.0%	0.0%	31.7%
30..34	9.2%	18.3%	34.2%	38.6%	1.7%	0.0%	25.3%
35..39	5.6%	7.1%	10.9%	32.6%	29.3%	1.0%	14.8%
40..44	1.2%	2.6%	3.4%	11.0%	37.5%	31.7%	7.2%
45..49	0.8%	1.5%	2.0%	6.9%	18.1%	37.5%	4.6%
50+	0.9%	0.5%	1.1%	3.5%	13.4%	29.8%	2.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In fact, 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 chart on the right shows the results of such an estimation.

Age Entering Field



Geographies Represented

Respondents were located throughout the world, though only the USA and a small number of other locations had enough data for true statistical validity of any results. The large chart on the next page shows the origins of all respondents to the 'employed' part of the salary survey. See this page's chart for represented USA metro areas.

Sysadmins in Large Metro Areas

Metro Area	# Resp	% Resp.	Metro Area	# Resp	% Resp.
San Francisco/San Jose/Silicon Valley, CA	228	12.3%	Toronto, ON	66	3.5%
Washington, DC	218	11.7%	Austin, TX	61	3.3%
New York	180	9.7%	Research Triangle, NC	60	3.2%
Los Angeles/Orange Co., CA	149	8.0%	San Diego, CA	48	2.6%
Boston, MA,	137	7.4%	Houston, TX	36	1.9%
Chicago, IL	113	6.1%	Montreal, QC	29	1.6%
Seattle/Redmond, WA	101	5.4%	Sydney, Australia	29	1.6%
Atlanta, GA	86	4.6%	Vancouver, BC	28	1.5%
Denver, CO	86	4.6%	Ottawa, ON	26	1.4%
Philadelphia, PA,	83	4.5%	London, England	21	1.1%
Dallas, TX	76	4.1%			

Percentages are of 1,860 valid geographies.

Sysadmins Around the World

Country	% Resp.	Country	% Resp.	Country	% Resp.
United States	80.7%	Belgium	[4]	Angola	[1]
Canada	6.1%	Austria	[3]	Antigua & Barbuda	[1]
Australia	3.4%	Brazil	[3]	Argentina	[1]
United Kingdom	2.5%	Bulgaria	[3]	Barbados	[1]
Ireland	[29]	Croatia	[3]	Belarus	[1]
Netherlands	[26]	Indonesia	[3]	Bolivia	[1]
Norway	[23]	Italy	[3]	Bosnia & Herzegovina	[1]
Germany	[18]	Andorra	[2]	China	[1]
New Zealand	[17]	Bahrain	[2]	Czech Republic	[1]
Switzerland	[15]	Cape Verde	[2]	Ghana	[1]
Sweden	[12]	Estonia	[2]	Guadeloupe	[1]
Afghanistan	[9]	Greece	[2]	Maldives	[1]
Algeria	[8]	Israel	[2]	Papua New Guinea	[1]
France	[8]	Korea (South)	[2]	Philippines	[1]
India	[8]	Latvia	[2]	Poland	[1]
Albania	[7]	Luxembourg	[2]	Puerto Rico	[1]
Japan	[7]	Malaysia	[2]	Romania	[1]
South Africa	[7]	Malta	[2]	Saudi Arabia	[1]
Finland	[6]	Nicaragua	[2]	Slovenia	[1]
Spain	[6]	Serbia	[2]	Ukraine	[1]
Denmark	[5]	Singapore	[2]	Uruguay	[1]
Mexico	[5]	Trinidad & Tobago	[2]	Vanuatu	[1]
Portugal	[5]	US minor outlying islands	[2]	Zambia	[1]

A number in square brackets (e.g., [3]) denotes an absolute number of respondents that is less than one percent of the total of 4,059 valid countries.

Titles

Respondents were asked to share their position's title (i.e., as shown on their business card). 4,044 actual titles contained 437 (vs. 2002: 688) distinct words. The average actual title was 21.6 characters long with 2.74 words (vs. 3.72 in 2002). 4.7% of the titles had multiple functions separated by a slash; only three had more than one slash.

This year's most popular word was 'system' (in incarnations that included 'systems' and 'sys'), appearing in 40.1% of the titles. Runner-up in 34.5% of the titles was 'administrator' (including 'administrative,' 'administration,' 'admin,' and 'sysadmin'). Next up at about 16% each were 'Senior,' 'Network,' and 'Engineer[ing].' The table below shows the distribution of all the words that appeared at in at least 25 (0.6%) titles. Only a handful of titles included brandnames of equipment this time, unlike in the past.

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.

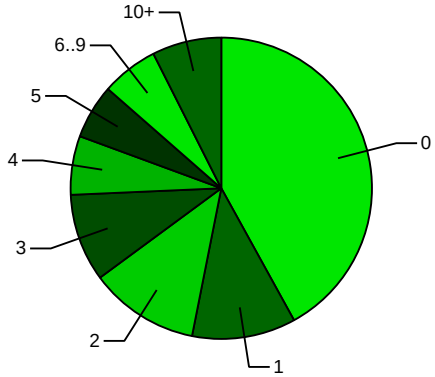
Title Words

Freq.	Word	Freq.	Word	Freq.	Word
40.1	Systems, sys	2.9	Consultant	1.0	III or 3
34.5	Administrat{or,ion,ive}, etc.	3.6	Comput{er,ing,ational}	[37]	Staff
16.6	Senior	2.3	Technology	[36]	Coordinator
15.8	Network	2.3	Software	[34]	DBA
16.5	Engineer{ing}	2.3	Developer	[33]	Principal
10.4	Manager	2.3	Architect	[33]	LAN
9.1	Analyst	1.9	Technician	[32]	I or 1
6.8	I.T.	1.9	II or 2	[31]	Project
6.6	UNIX	1.8	Lead	[28]	Data
6.2	Specialist	1.7	Operations	[27]	Tech
4.1	Support	1.6	Database	[27]	Associate
4.1	Programmer	1.4	Services	[25]	Supervisor
3.9	Director	1.3	Web	[25]	Research
3.8	Technical	1.2	Infrastructure	[25]	Leader
3.5	Security	1.1	Officer	[25]	Chief
3.5	Information	1.1	Assistant	[25]	Application

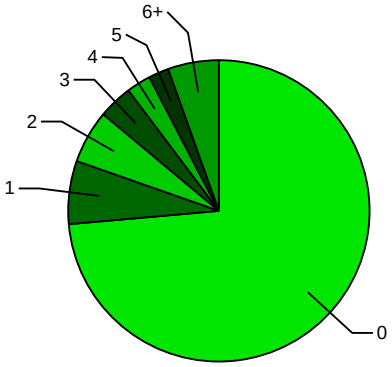
Supervisory Capacity

Almost two thirds of the respondents reported informal supervisory capacity at some level; over a quarter had formal supervisory capacity. These charts hint at the level of mentoring in the profession.

Informal Subordinates



Formal Subordinates



Purchasing Responsibility

Half of the respondents at least contribute to the budget; over a quarter can purchase less expensive items. The charts on the next pages show purchasing responsibilities for all the sub-disciplines. Not surprisingly, a different focus brings different responsibilities.

	Generalist				Help desk			
Purch. Resp.	None	Contrib	Specify	Final	None	Contrib	Specify	Final
Items < US$500	11.0%	10.9%	41.4%	36.8%	28.6%	14.3%	40.3%	16.8%
Items US$500-5000	12.1%	16.5%	55.5%	15.9%	33.6%	23.5%	37.0%	5.9%
> US$5000	16.4%	25.5%	51.7%	6.4%	46.2%	33.6%	18.5%	1.7%
Budget: Work-group	30.5%	38.3%	23.7%	7.4%	63.0%	26.9%	8.4%	1.7%
Budget: De-partment	37.3%	35.9%	20.7%	6.1%	65.5%	24.4%	9.2%	0.8%

	Security				Networking			
Purch. Resp.	None	Contrib	Specify	Final	None	Contrib	Specify	Final
Items < US$500	19.0%	10.8%	42.9%	27.3%	13.2%	9.0%	44.3%	33.5%
Items US$500-5000	17.7%	18.2%	51.1%	13.0%	12.8%	13.0%	59.0%	15.2%
> US$5000	19.5%	29.0%	45.0%	6.5%	14.1%	22.7%	55.9%	7.3%
Budget: Work-group	36.8%	39.8%	17.7%	5.6%	33.3%	36.3%	24.7%	5.7%
Budget: De-partment	51.9%	37.2%	7.8%	3.0%	37.2%	38.5%	20.0%	4.2%

	Server mgmt				Databases			
Purch. Resp.	None	Contrib	Specify	Final	None	Contrib	Specify	Final
Items < US$500	17.9%	11.7%	48.1%	22.3%	30.9%	14.5%	34.3%	20.3%
Items US$500-5000	18.8%	17.2%	55.7%	8.3%	29.0%	23.2%	40.6%	7.2%
> US$5000	21.0%	28.9%	46.5%	3.5%	35.3%	31.9%	30.4%	2.4%
Budget: Work-group	41.2%	40.4%	15.9%	2.5%	49.8%	35.3%	12.6%	2.4%
Budget: De-partment	50.7%	35.5%	12.3%	1.5%	59.9%	27.5%	10.6%	1.9%

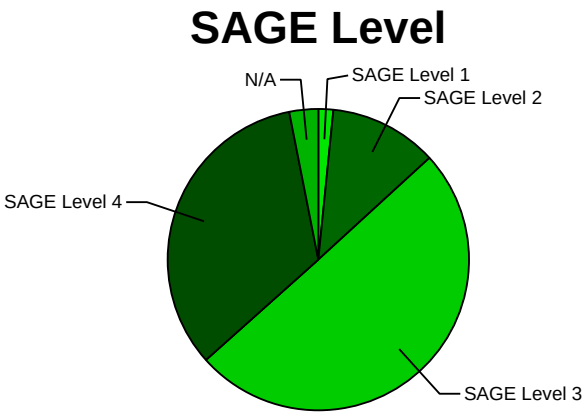
	People mgmt				Technical lead			
Purch. Resp.	None	Contrib	Specify	Final	None	Contrib	Specify	Final
Items < US$500	5.5%	1.4%	12.3%	80.8%	13.4%	9.6%	43.3%	33.7%
Items US$500-5000	5.5%	4.1%	26.0%	64.4%	13.7%	13.9%	54.6%	17.7%
> US$5000	5.5%	6.8%	43.8%	43.8%	16.4%	23.9%	52.2%	7.5%
Budget: Work-group	8.2%	20.5%	28.8%	42.5%	32.4%	36.9%	24.3%	6.4%
Budget: De-partment	15.1%	28.8%	20.5%	35.6%	40.5%	34.3%	20.9%	4.3%

	Project mgmt				Desktop			
Purch. Resp.	None	Contrib	Specify	Final	None	Contrib	Specify	Final
Items < US$500	16.3%	5.8%	36.5%	41.3%	25.0%	23.2%	39.3%	12.5%
Items US$500-5000	17.3%	8.7%	49.0%	25.0%	30.4%	30.4%	33.9%	5.4%
> US$5000	16.3%	16.3%	48.1%	19.2%	50.0%	23.2%	26.8%	0.0%
Budget: Work-group	26.9%	20.2%	36.5%	16.3%	62.5%	26.8%	10.7%	0.0%
Budget: De-partment	36.5%	22.1%	25.0%	16.3%	62.5%	28.6%	8.9%	0.0%

	Other			
Purch. Resp.	None	Contrib	Specify	Final
Items < US$500	23.6%	12.8%	34.9%	28.7%
Items US$500-5000	26.7%	13.8%	44.1%	15.4%
> US$5000	29.2%	23.1%	40.0%	7.7%
Budget: Work-group	44.1%	28.2%	19.0%	8.7%
Budget: De-partment	52.8%	24.1%	16.9%	6.2%

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. Only 3.1% of them felt their job did not fit within the proper parameters. The remainder classified themselves according to these definitions.



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

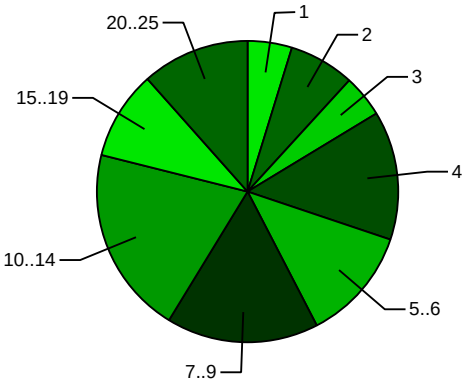
Unemployment

10.9% of the respondents (and these are the people who were generally employed during 2003) were unemployed for at least one week during 2003. 3.3% were unemployed for four weeks or less; 6.1% were unemployed for as much eight weeks. This chart shows how many weeks those almost-11% were out of work.

Certifications

Respondents named the certifications most important to them; see the table for the results.

Weeks of Unemployment



Certifications Held

Certification	% Resp.	Certification	% Resp.	Certification	% Resp.
Bachelors Degree (any relevant)	15.6	Sun/Solaris SCN*	2.2	COMPTIA I-Net+	[31]
Microsoft MCP/MCP+i	11.4	Novell CNE	2.1	SAIR certified Linux administrator	[31]
Cisco CCNA	10.7	IBM (any)	2.0	SANS/GIAC GSEC	[31]
Microsoft MCS*	9.9	Apple (any)	1.7	Cisco CCDP	[27]
COMPTIA A+	7.3	Oracle/OCP (any)	1.7	EMC (any)	[24]
Red Hat (any)	6.7	Checkpoint CCSA	1.5	CSage	[23]
Sun/Solaris SCSA	5.0	Cisco CCDA	1.4	SANS/GIAC GCIA	[22]
Brainbench (any)	4.0	Citrix CCA	1.4	SCO (any)	[21]
Microsoft Other	4.0	Cisco CCIE	1.3	Lotus (any)	[21]
Sun/Solaris Other	3.3	Checkpoint CCSE	1.3	SANS/GIAC GCIH	[13]
(ICS)2 CISSP	3.0	Compaq	1.2	COMPTIA Other	[12]
COMPTIA N+	2.6	LPI (any)	1.0	SANS/GIAC GCWN	[12]
Novell CNA	2.5	COMPTIA Linux+	[40]	SANS/GIAC Other	[12]
Cisco CCNP	2.5	Cisco Other	[37]	SANS/GIAC GCUX	[12]
HP (any)	2.4	COMPTIA Security+	[37]	Checkpoint Other	[11]
AIX (any)	2.3	Learning Tree (any)	[37]		

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

Certifications often generate a lot of discussion when syadmins gather. This year's survey asked respondents their general opinion about about the value of certifications. The results are illuminating, given that the most vocal opinion is ''they are worthless.''

Value of Certifications

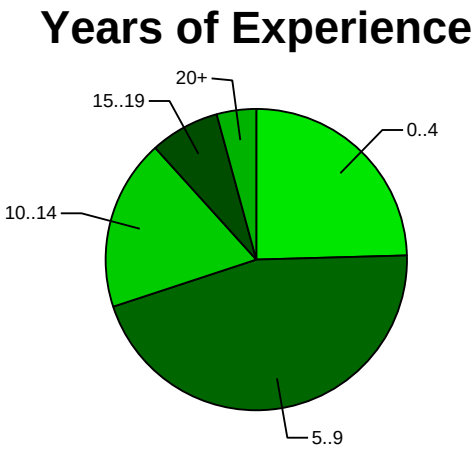
Perceived value	% Resp.
Sometimes, it depends	48.0%
Rarely, a few are good	19.1%
Yes, generally they are a good thing	11.7%
Usually, most are pretty good	10.0%
No, generally they are worthless	9.3%
No opinion	2.0%

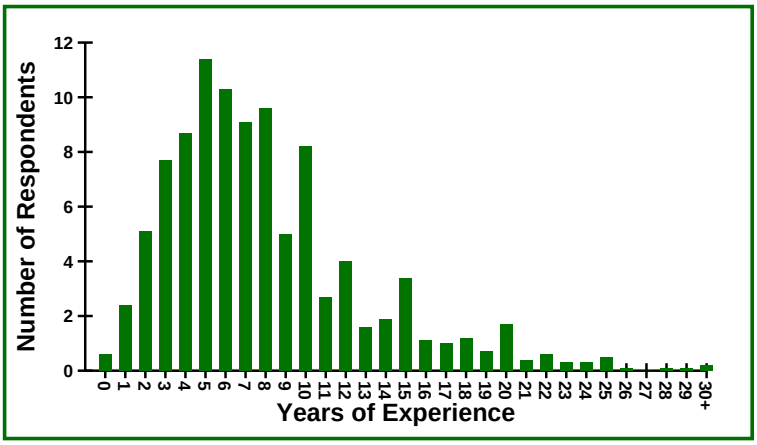
Experience

Respondents had a mean of 8.01 (up from 7.83 last year) years of experience, with a standard deviation of 5.00 years (same as last year). The median was 7, just as in 2002. 30.1% had ten years or more of experience; 11.8% had 15 or more years of experience (vs. 11.7% in 2002). Two charts summarize the experience levels of the respondents. The pie-chart show a huge (45.4%) hump in the distribution for those with 5..9 years experience (with almost a quarter having less than that).

The detail graph shows in an almost bell curve-like distribution with a peak at five years. Curiously, last year's chart also had a peak at five years. Since this survey was held a year later, one would have expected the peak to move! This year's respondents, however, did not include as many SANS members, so the number of security practitioners has declined. The detailed graph implies that a number of people entered the field 5-10 years ago, and that the number entering or staying in the field is now declining.

The gender chart implies that females stay in the field longer than males. If one believes that system administration is a waystation on the way to 'better' career steps, then this would be evidence of a sort of 'pink ceiling.' The data here, though, probably need deeper analysis to draw such a conclusion, though.





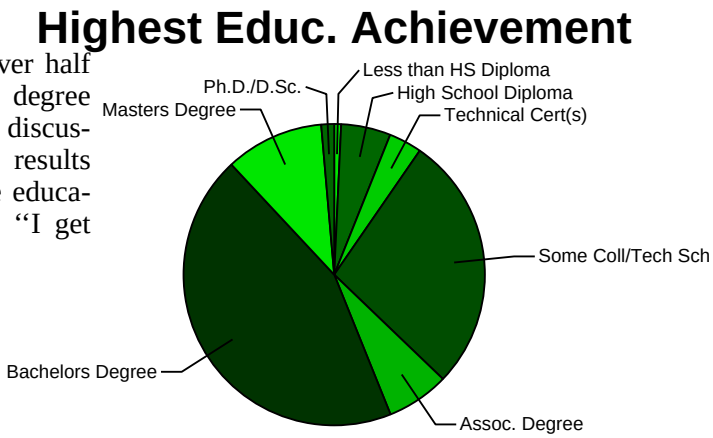
Exp. vs. Gender

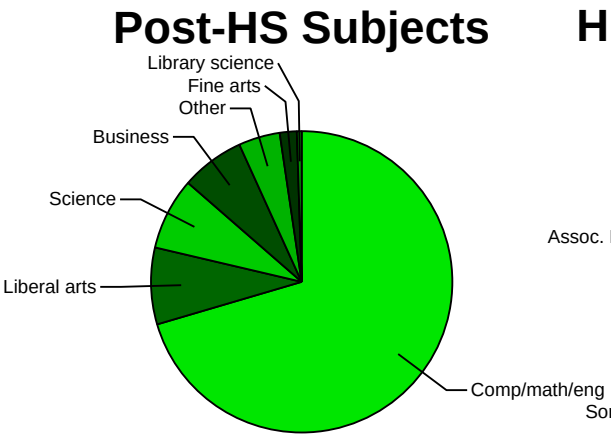
Exp.	Female	Male	Total
0	0.5%	0.6%	0.6%
1..4	20.9%	24.1%	23.9%
5..9	39.6%	45.6%	45.4%
10..14	21.4%	18.2%	18.4%
15..19	11.8%	7.3%	7.5%
20..24	4.3%	3.2%	3.3%
25..29	1.1%	0.8%	0.8%
30+	0.5%	0.2%	0.2%
Total	100.0%	100.0%	100.0%

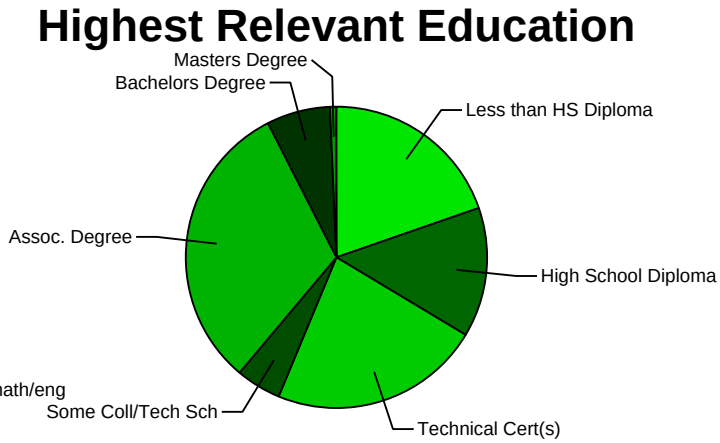
Education

Experience is often backed by education. Over half (57.6%) of those responding have a college degree (at least a Bachelors) in any field. 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. The ‘Other’ listings included philosophy, psychology, electronics, economics, physics, mathematics, law, English, communications, and 65 other items that were mentioned three or fewer times.







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’). Only 7.4% of those surveyed have earned at least a Bachelors degree in a relevant field. This fact alone probably motivates a huge amount of attitudinal behavior towards sysadmins by engineers and managers who feel they have ‘relevant’ degrees.

Universities don’t really teach system administration. How do people *really* learn system administration? Over 85% of them were able to attribute much of their knowledge to on-the-job training or self-instruction: The ‘Other’ entries included chat rooms, trial-by-fire, hobby computing, Google, user groups, and mailing lists.

Learning Styles

	Not at all	A bit	Somewhat	A lot
Taught myself (books, web, practice, etc.)	0.9%	1.8%	9.4%	87.8%
On the job	1.2%	1.8%	12.0%	85.0%
Mentor of any kind	28.0%	25.2%	29.6%	17.1%
Univ./college educ. (CS/IS/IT degree program)	36.7%	27.1%	22.4%	13.7%
Vendor-specific training courses	40.3%	33.2%	20.8%	5.7%
Certification program courses	50.0%	27.7%	17.0%	5.2%
Conferences/commercial training	44.5%	33.4%	18.2%	3.9%
Non-degree tech school, coll., or univ. courses	75.3%	13.9%	8.2%	2.6%
Military	93.8%	2.4%	1.5%	2.3%
Other	98.9%	0.1%	0.1%	0.8%

Relevant Education vs. Age

The dip in respondents in the under-25 age distribution leads to the question, ‘‘Are they still in school?’’ The table below compares relevant education level and age. It suggests that older admins have a better chance of having a relevant bachelors degree while the youngest group of admins is more likely to have earned technical certificates or an Associates Degree. Regrettably, this does not answer the question exactly.

Relevant Education vs. Age

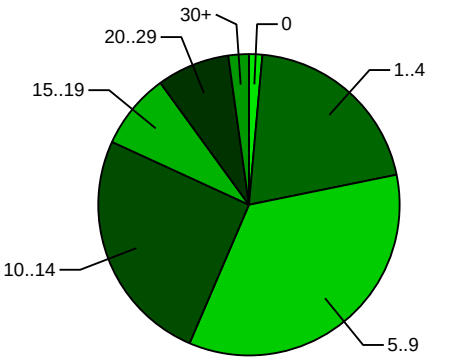
Education	1..24	25..29	30..39	40..49	50+	Total
Less than HS Diploma	15.5%	19.1%	21.5%	19.6%	21.2%	19.7%
High School Diploma	11.7%	14.2%	15.1%	12.9%	9.3%	13.9%
Technical Cert(s)	28.5%	23.4%	20.8%	21.3%	19.5%	22.7%
Some Coll/Tech Sch	4.7%	6.1%	3.4%	6.3%	5.9%	4.9%
Assoc. Degree	36.5%	32.8%	30.1%	27.8%	24.6%	31.4%
Bachelors Degree	2.7%	4.2%	8.4%	10.9%	16.1%	6.8%
Masters Degree	0.4%	0.2%	0.7%	1.3%	3.4%	0.6%

Continuing Education

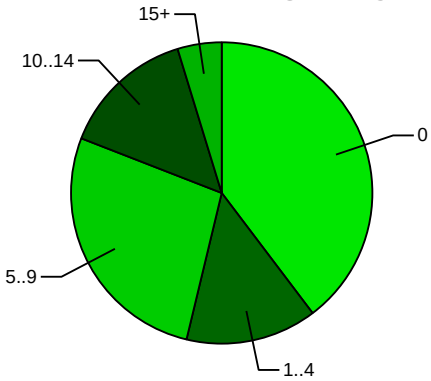
In the world of computer administration, learning and growing are absolute requirements. Admins must keep up to date on a host of new technical and legal developments throughout both their focus area and in ‘soft’ areas, as well. The weekly time expenditure of time for keeping up is quite dramatic (see the first chart on the right). The average is 8.9 hours/week (last year: 9.0) and the standard deviation is 7.4 hours/week. This works out almost to a quarter-time job for ‘40 hour’ workers. More than 40% report five hours or less per week; more than 30% (up from last year’s 20%) report a staggering 12 hours or more per week. These numbers might be skewed, however. It appears some respondents count ‘learning on the job’ as ‘learning.’ It is clear, however, that continued learning is de rigeur for this profession.

Organizations sometimes pay for employee continuing education education. Of 4059 respondents; sometimes they do not. 39.7% were not afforded this option. Even with that many zeroes averaged in, the mean number of training days annually was 4.4 and the median was 3. See the chart on the right to see the breakdown.

Hrs/wk Self-training



Paid Training Days



Industries Represented

Roughly 82.7% of the respondents work at a single job; 17.3% have multiple employers. Respondents were asked to cite their primary area of employment. Education led the way; for some reason they came out in force for the survey this year. Over 97% were able to categorize their employment into a set of canonic industries.

Other industries represented by at least three people but fewer than 1% included: Government/Military, Energy, State/Local Gov't, Aeronautical/aerospace, Biotech., Services, Transportation, Broadcasting, Legal, Distr./Warehousing, Automotive, IT: DB, Pharmaceuticals, Comm. Education, Real Estate, Travel/Recreation, Acctg., Construction, Food, Wholesale, Hospitality, Env. Svcs., VAR, Gaming, Human resources, Military, Chemical, Library, Mining, Agriculture, Architecture, and GIS.

Employment Categories

Industry	%	Industry	%	Industry	%	Industry	%
Education - College or University	14.4%	Government - Non-Military	3.7%	IT: Other	2.0%	Engineering	1.4%
Financial services (all kinds)	7.6%	IT: Consulting	3.1%	Education - Elementary or Secondary	1.8%	IT: Web development/webmaster	1.3%
Telecommunications	6.3%	Computer hardware/semiconductor	2.9%	Advertising, Public Relations, Communication, or Marketing	1.7%	Entertainment	1.3%
IT: Software Development	6.3%	Other	2.9%	Research	1.6%	Defense	1.0%
Manufacturing	4.0%	Consulting and Business Services	2.4%	Publishing	1.6%	IT: Security	1.0%
Health Care, Medicine	3.8%	Government - Contracting	2.4%	Not-for-profit	1.5%	Utility	1.0%
IT: ISP/ASP	3.8%	Retail	2.3%	Insurance/risk management	1.5%		

Organization Size

54.3% 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. 21.5% work in organizations with 100 or fewer employees.

Travel

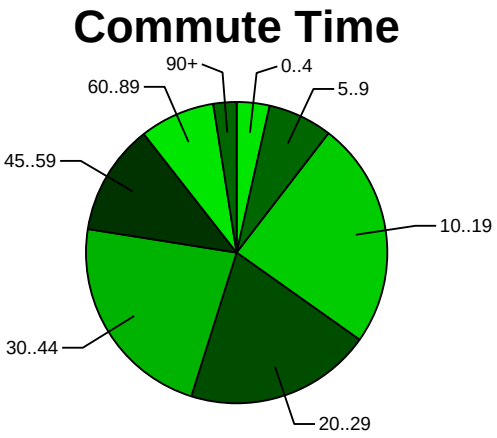
Generally, sysadmins don't seem to travel very much (this sort of travel is for support of the business, not for conferences/training); 55.4% (vs. 2002's 53.7%) of respondents don't travel at all. About 16.0% are out of town more than two weeks annually.

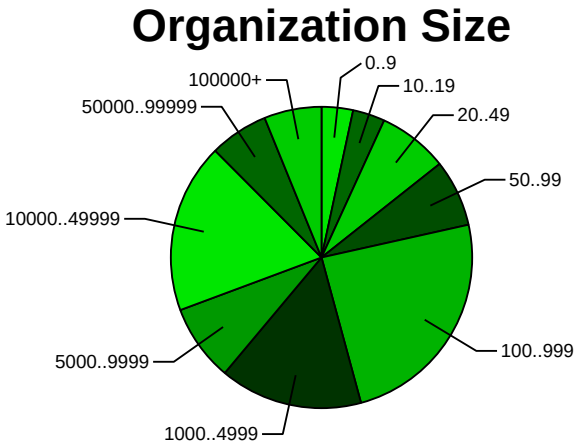
Workweek Characterization

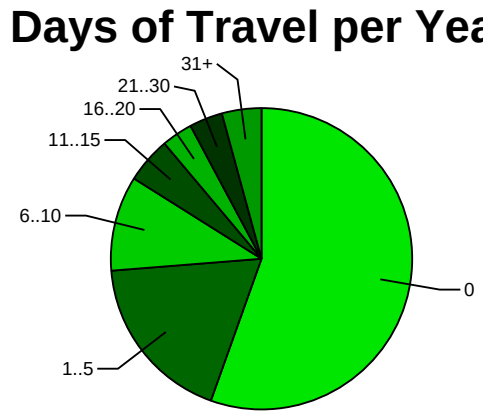
Sysadmins have long complained about long work weeks. The survey asked how many hours per week each respondent worked. The graph below tells the tale (for those work worked 30 or more hours per week)). About half reported 44 or fewer hours per week; half reported 45 or more. Those reporting 60 hours or more numbered 9.3%. For full-timers, the average work week was 45.7 hours (down from 46.7 hours in 2002 and 47.7 hours in 2001). This is still more than 10% more than the mythical ''USA average 40 hour week.'' About 32.6% (vs. 27.8% in 2002) of the respondents − almost one in three − worked more than 50 hours/week.

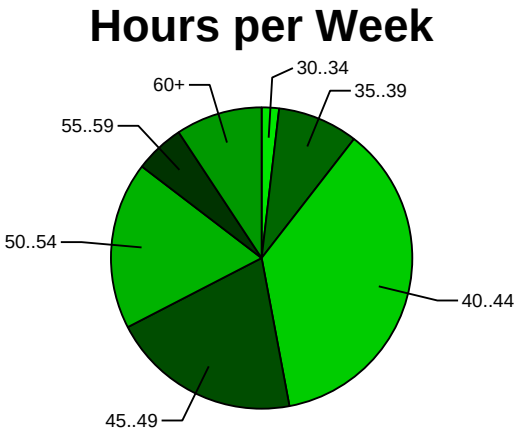
Commute Time

While over 10% of respondents commute (one way) for less than 10 minutes, 22.5% commute more than 45 minutes, including 2.5% at over 90 minutes. See the piechart below for a summary.

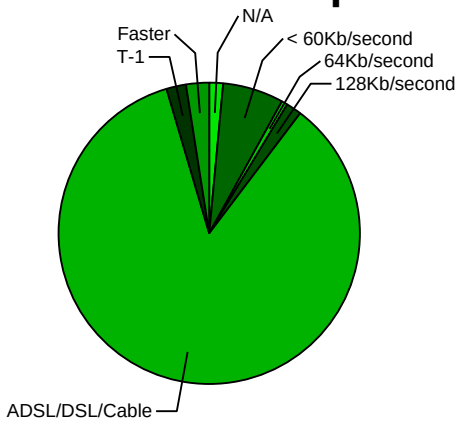








Home Internet Speed



Working from Home

Telecommuting is a big buzzword in the technical community. The chart on the right illuminates interesting facts:

- Over 97% of respondents have internet at home
- 88.9% (up from 2002's 75%) of respondents have full-time internet at home
- Companies assist only a bit in paying for connection costs, and half are dissatisfied with this
- Over a third − 38.5% − telecommute for more than 8 hours/week
- Over 5% telecommute more than 30 hours/week
- 89.7% connect to the internet from at speeds much greater than 1 megabit per second

Longevity and Loyalty

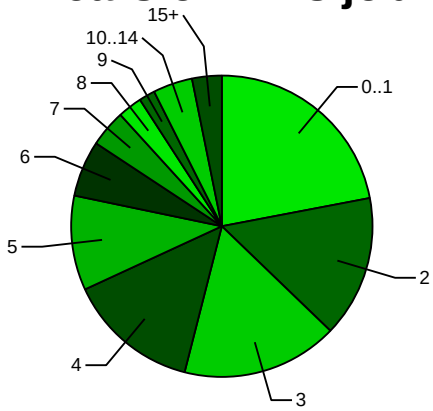
Recent economic conditions have dramatically changed notions of employer (and employee) loyalty and position longevity in many cultures. The mean job stay of those at their job at least a few months is 4.22 years (vs. 4.32 years last year); the median is three years. 54% have been at their job for less less than four years. Only 15.7% (vs. 2002 at 15.1% and 2001 at 18.4%) of those who responded say they have been with their current employer for seven years or more. 115 respondents (2.8%) reported being in their job less than one year.

Looked at another way, it's clear that these days admins continue to move around to different jobs (for a number of reasons). To the right is a chart that reveals the number of primary employers respondents report having had over the previous five years. Note that 38.6% have stayed with the same employer for the full half-decade.

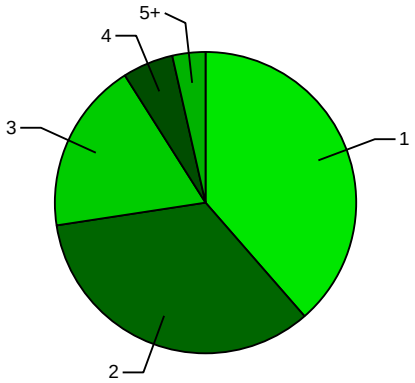
Internet at Home

Query	No	Yes
Internet at home?	2.6%	97.4%
Network on full time?	11.1%	88.9%
Company pay ANY network costs?	71.7%	28.3%
Company pay ALL network costs?	80.0%	20.0%
Satisfied with company support?	51.0%	49.0%
Work more than 8 hours/week at home?	61.5%	38.5%
Work more than 30 hours/week at home?	94.8%	5.2%

Years on This job



Empl's Last Five Yrs



As far as loyalty, the survey asked what would make people wish to change jobs.

Reasons to change jobs

Why	% Resp.	Why	% Resp.
Pay/compensation	66.9	Ability to work with/avoid a given brand or vendor (incl. linux)	14.2
Challenge/interest	39.4	Telecommuting	13.8
Job security	34.0	Competence	12.7
Benefits	30.5	Ability to work with or contribute to open source projects	12.2
Ability to advance/be promoted more quickly	28.5	Ethics	9.7
Location/commuting issues	24.3	Workload	9.7
Hours or schedules (good *or* bad)	23.2	Physical environment (e.g., offices vs. cubicles)	9.4
People (friendlier, more competent, etc.)	22.1	Company size	8.9
New technology	19.7	Family-friendly	8.5
Culture	17.9	On-call/pager/mobile phone issues	5.6
Vacation time	17.3	Travel issues (want more or want less)	5.0
Management/vision	17.0	Conference attendance	4.2
Training, learning, tuition reimbursement, certification programs	16.9	Intellectual property policy	2.5
Dress code	14.9	Child care	1.7
Reputation, size, potential, stability, or mission	14.4	Visa/work permit	1.2
Respect	14.2	Other (please specify)	1.1

As to longevity expectations, 80.6% (vs. 79.4% for 2002 and 75.8% for 2001) of respondents report that they expect to be in system administration in five years. The other 19.4% answered 'No.' Both genders responded at approximately the same level. The table below shows the differences in expectations for members of various sized organizations:

Future Prospects vs. Company Size

Stay?	0..9	10..49	50..99	100..499	500..999	1000..4999	5000+	Total
No	28.5%	22.7%	26.8%	15.9%	14.2%	19.0%	19.0%	19.4%
Yes	71.5%	77.3%	73.2%	84.1%	85.8%	81.0%	81.0%	80.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Those in smaller companies (1..99 employees) tend to be less confident of their future in computer administration than those in large companies. Many respondents, though, still seem to think they'll be changing careers in the next half decade.

For those who would change away from the profession, what future career areas are they considering? 723 respondents answered the question, ‘‘What else would you do?’’ with some answer that wasn’t ‘‘Stay in the field.’’ Management was the big winner, with about 25% of the responses. 137 more cited a different (usually non-technical) field (e.g., baker, financier). 24 more wanted ‘‘anything but this.’’ Many just wanted a better position or a more technical position. See the table on the right.

Future Prospects

% Resp.	Field	% Resp.	Field
24.9	Management	3.3	Engineer
18.9	Different	3.3	Better
11.3	Development	3.3	Anything else
6.6	Business	2.9	Consult
5.8	Don’t know	2.8	Retire
4.8	School	2.6	Architect
3.9	Security	1.7	Research
3.7	Teach		

The remainder broke down into a myriad of different fields, many of them dramatically less technical than system administration. Other categories included: other web activities, telecomm, storage management, network architecture, religious activities, skill growth, journalism, military, finance, stock trading, winter sports, travel, non-profit work, jobs ‘‘for the great good of mankind,’’ lawn care, goat herding, GIS, firefighting, construction, zen, and zoology.

Organization Membership

Professionally, 21.1% of the respondents belong to SAGE; 18.3% belong to USENIX; 8.5% belong to SANS; 5.4% belong to IEEE; and 5.3% belong to ACM. Many other organizations were also represented. This breakdown is not surprising, since SAGE was the survey’s promoter.

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 organization is helpful.

Technical Assns. and Rated Utility

Organization	Do not belong	Belong	Belong & helpful	Belong & very helpful
SAGE	79.9%	4.4%	9.9%	5.7%
USENIX	81.6%	5.2%	8.9%	4.2%
SANS	91.5%	2.5%	3.1%	2.9%
IEEE	94.6%	2.8%	2.0%	0.7%
ACM	94.7%	2.7%	2.1%	0.5%

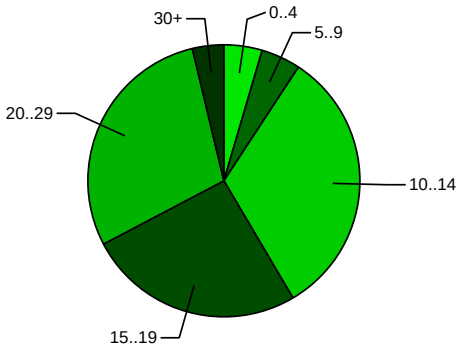
A few other organizations garnered mention for this query. Ignoring the 246 associations that did not garner at least five mentions, here is the list of those with 5 or more citations: ISC2 (35), SAGE-AU (30), ISSA (16), ISACA (11), SSWUG/SQL Server world wide user group (9), COMPTIA (9), Project Management Institute (6), BayLISA (6), AUUG (6), PASS Professional association of SQL Server (5), MCP (5), IEE (5), and EFF (5).

Traditional Time Off

Like most professionals, system administrators usually get some paid vacation (in addition to paid holidays). While 3.4% of those reporting say they get no paid vacation, the mean of those who do is about 15.2 days (not counting those who report more than 30 annual days off). The median is 15 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 on the next page).

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

Annual Days Paid Vacation



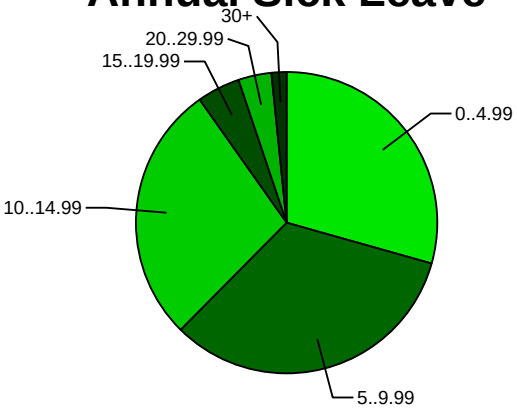
Exper. vs. Days Off

Years Experience	Days Vac.	Years Experience	Days Vac.
0	12.7	6	15.4
1	12.1	7..9	16.0
2	13.1	10..14	16.5
3	15.1	15..19	17.6
4	14.9	20+	16.6
5	15.5		

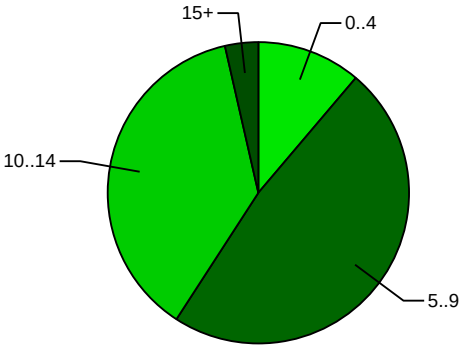
Longevity and Vacation

Years at Employer	Days Vacation	Years at Employer	Days Vacation
0	12.6	6	17.8
1	14.0	7..9	17.7
2	14.2	10..14	20.0
3	15.2	15..19	20.6
4	15.6	20+	23.1
5	16.2		

Annual Sick Leave



Paid Holidays



Sick days are another standard way of using time off. Of those responding, 12.7% (silghtly up from 2002's 12.07%) receive no sick days. The mean was 7.36 days (up from 2002's 7.11 days); the median was 6 days (up from 2002's 5 days). Above is a chart of sick day allocation (for those who have limits).

About 5.3% (2002: 5.8%) of respondents reported no paid holidays. The mean was 8.23 days (2002: 8.15 days), with a median of 8 (same as 2002). The breakdown is above.

Benefits

The chart below describes insurance coverage this for the survey's respondents. The survey still has a bit of a problem in integrating Euro-style and other non-USA insurance programs.

Insurance Coverage

Coverage	Not offered or not used	Unpaid	Partly paid	Fully paid
Life insurance	20.8%	10.3%	41.6%	27.3%
Disability insurance	23.5%	11.0%	39.5%	25.9%
Health insurance	10.7%	3.7%	60.1%	25.5%
Dental insurance	16.1%	7.9%	55.5%	20.6%
Vision care insurance	24.9%	11.3%	47.1%	16.8%

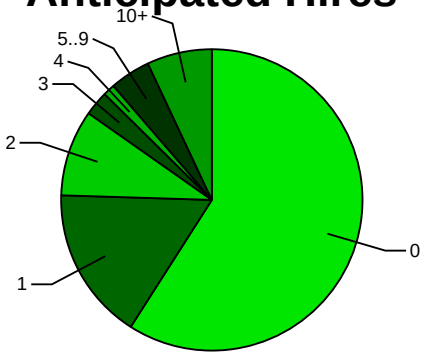
75.2% of respondents report that their employer contributes to a retirement fund on their behalf. Respondents also reported on receiving other extra benefits.

Benefits Reported

Benefit	% Resp.	Benefit	% Resp.
401(k) matching	41.9	Flexible/cafeteria plan for benefits	15.5
Tuition support; certification cost support	40.8	Hardware or telecomm assistance, discounts for home	13.5
Family medical insurance	40.2	Domestic partnership benefits	13.4
401(k)	39.6	Performance or signing bonus	11.8
Cell phone (paid)	33.0	Donation matching	11.3
Food/drink at work (i.e., coffee, Friday bagel program, cheap lunch, cheap soda)	29.2	Profit sharing	10.4
Retirement plan/fund/program	27.1	403(b)	10.3
Flextime/flexible hours (e.g., 9 x 80, 4/40 schedules)	25.3	Commuting assistance	7.9
Parking	25.0	Association memberships	7.7
Discounts of various kinds	22.2	Child care/childcare assistance	5.3
Conference attendance (including tutorials)	22.2	Special pensions	2.9
Telecommuting	20.3	Company car (or lease)	2.9
Credit union	20.0	Housing/home loan	2.7
Stock options or stock purchase plan	20.0	RRSP (matching, assistance)	2.5
Gym, health club membership	19.9	IRA	2.2
Employee stock ownership plan	17.7	Other	2.0

These benefits were also added by respondents: Other retirement program (20), Transportation allowance (9), Education subsidy (8), Flexible medical/child care (6), Home PC subsidy (4), Food/beverages (4), Banking discounts (4), Guaranteed bonus (3), Stock purchase program (2), Special bonus (2), TV/ISP subsidy (2), Time off for consulting (1), Profit sharing (1), Medical doctor onsite (1), Massage (1), Legal insurance (1), House cleaning (1), Free newspaper (1), Flexible time off (1), Employee-directed charities (1), Career mgmt consultation (1), and Access to university (1).

Anticipated Hires



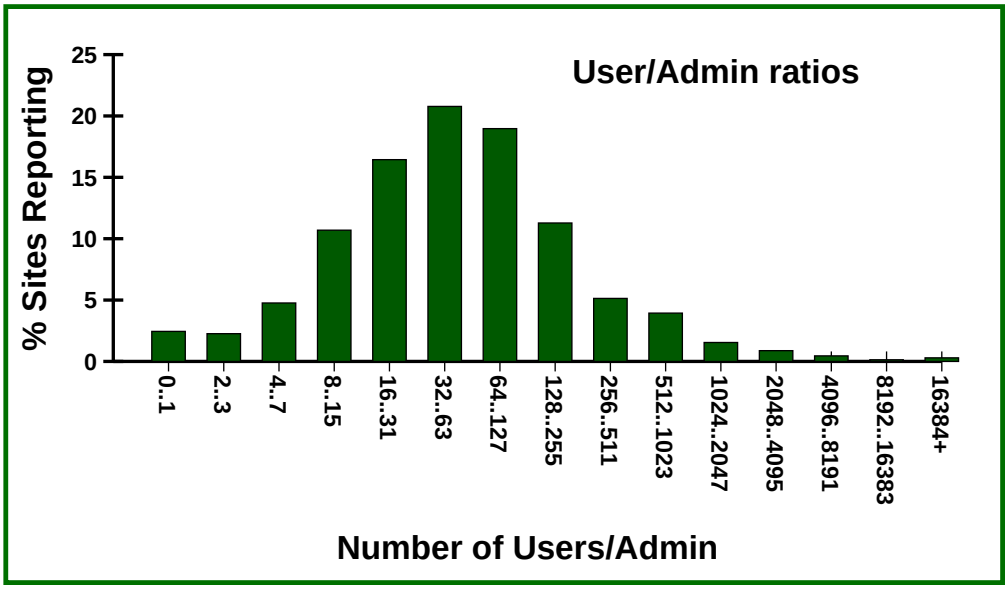
Hiring Outlook

Respondents were asked to estimate the number of sysadmins to be hired in 2004. The chart on the right summarizes this optimistic outlook.

Users per Admin

Managers often look to SAGE for a ‘‘universal constant’’ that is the number of admins required per full-time-equivalent user. 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). They did not materially affect the presentation above.
- Multiple respondents from the same company will skew that company’s ratio a bit higher on the ‘‘Sites Reporting’’ scale.

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:

- 65.1% of employees are ''generally satisfied with their compensation package'' (34.9% aren't)
- 50.5% of respondents are not specially compensated for overtime
- 68.7% of respondents are not specially compensated for 'night' (shift) work
- 73.5% (2002: 69.9%) of respondents are occasionally required to be 'on-call,' wear a pager, or carry a cellphone
- Of those required to be on call, 83.0% receive no extra compensation; 12.7% receive extra money; 6.7% receive comp time)
- 25.5% of respondents never carry a pager/cellphone; 25.5% (vs. 2002: 44.2%) wear a pager/cellphone all the time. The rest are on call at various frequencies: 5.8% are on call one week out of two or more; 4.0% are on call one week out of three or so; 5.2% are on call one week out of four or so; 3.3% are on call one week out of five or so; 3.9% are on call one week out of six or so; 6.8% are on call sometimes, but less than one week out of six.
- 27.5% (vs. 2002: 30.3%) of respondents receive some sort of stock bonus
- 91.8% of respondents work for a single employer
- 86.3% of respondents are salaried; 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, say, Anchorage, Alaska). Generally, statistics that are nonreliable by virtue of their small sample size are either not reported or reported with a '#' that marks them as unreliable.

Salary Change Summary

The average salary change for those 3,184 full-time respondents with salary changes from -30% to 30% (from all nations and currencies) was 4.88%.

10.8% earned less in 2003 than in 2002; 15.4% received a raise of 0-0.99%. Of those 74.6% who increased their salaries (30% or less), range, the average increase was 8.18%. Those in the lower brackets (US$20K-50K) earned larger percentage salary increases on average. The small number of folks in the very high brackets did very well, too.

Note that while the percentages vary a lot in the US$20K-90K range, the increase as expressed in dollars is not so very different. This might be due to the way raises are allocated at organizations with several staff members (e.g., ''Here's an allocation to divide among your N employees'').

To the right is an overall chart of last year's salary changes, calculated against a 2002 base salary. It does not show experience or job categories and thus should be viewed as an overall picture. It does suggest, however, that little if any gender-gap exists on the overall generality of salary changes.

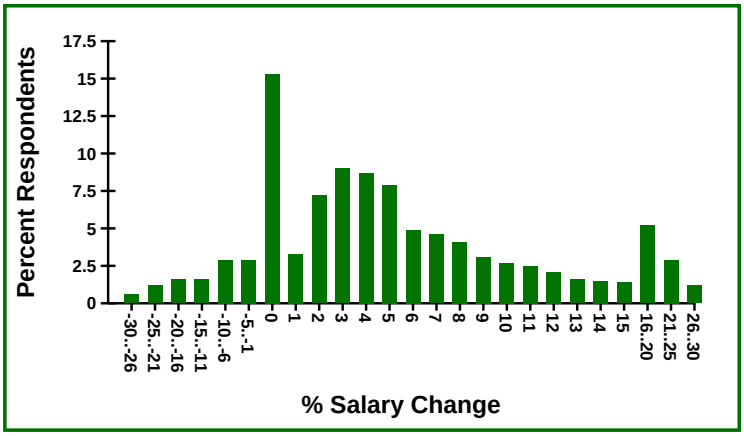
The page's final chart shows a histogram of the various salary changes. It's easy to see that the 2-5% was very popular.

Increases by Salary Range

Range	% in Range	% Incr	Incr (US$)
< 20,000	0.8	5.9	978
20,000-29,999	4.0	5.0	1,326
30,000-39,999	10.2	6.0	2,061
40,000-49,999	16.0	6.0	2,660
50,000-59,999	16.6	4.7	2,546
60,000-69,999	14.3	4.7	3,024
70,000-79,999	13.0	4.0	2,933
80,000-89,999	8.5	3.9	3,261
90,000-99,999	6.2	3.8	3,569
100,000-124,999	7.7	4.5	4,957
125,000-149,999	2.0	7.6	10,003
150,000-174,999	0.4	3.7	5,891
175,000-199,999	0.2	6.4	12,277

Salary Raises from Year to Year

% Inc.	All	Male	Fem.	% Incr.	All	Male	Fem.
-30..-10	4.9	4.8	6.8	10..11.99	5.3	5.3	4.1
-9.99..-5	2.9	2.9	3.4	12..13.99	3.6	3.6	3.4
-4.99..0	2.9	3.0	2.7	14..15.99	3.0	3.0	3.4
0..1.99	18.5	18.3	22.6	16..17.99	2.2	2.1	4.1
2..3.99	16.3	16.1	19.9	18..19.99	1.7	1.8	0.7
4..5.99	16.7	16.9	13.7	20..29.99	5.1	5.2	2.1
6..7.99	9.5	9.5	8.9	30+	0.1	0.1	0.0
8..9.99	7.3	7.4	4.1				



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/Incentive

Reason	% Resp.	Reason	% Resp.
Did not receive at least 4% raise	36.5	Publicized achievements	1.4
Performance	15.8	Earned a certification	1.2
Achieved goals	14.8	Salary freeze lifted	1.1
Annual raise	12.4	Departure of others	1.1
Increased responsibilities	9.7	Changed to management	1.1
Worked hard with a positive attitude and ethic	9.3	Threatened to leave/quit	1.0
Maintained stable net/sys environment	6.8	Other	1.0
Became involved in a high-profile project	5.1	Used a salary survey to educate your management/HR	[40]
More active planning/mgmt role	4.3	Upgraded skills via education	[34]
Changed (reclassified) position	4.1	Raise to combat other job offer(s)	[31]
Client/customer satisfaction	3.2	Collective bargaining/union	[29]
Long time without raise	3.0	Corporate success/profit sharing	[29]
Cost of living adjustment/COLA	3.0	Earned a college/advanced degree	[24]
Promotion	2.9	Probation ended	[23]
Changed employers/job	2.9	Improved speaking, writing, and/or presentation skills	[21]
Requested/negotiated salary increase	2.7	Contractual	[19]
Standard/across-the-board raise	2.7	Relocation within same company	[15]
Longevity	2.1	Went into consulting	[13]
Stayed in position (vs. 'quitting')	1.7	Corporate buyout/takeover	[8]
Increased hours/overtime	1.5		

Other reasons mentioned: Profit sharing (5), Bonus instead of raise (4), Punctuality/attendance (3), Stock-based bonus (2), Severance package (2), Fitness incentive (2), Company performance bonus (2), Union-motivated bonus (1), Travel bonus (1), Sick day reimbursement (1), Share of commissions (1), Safety bonus (1), Promotion (1), Performance (1), One time event (1), Non-performance based bonus (1), Longevity (1), Job reclassification (1), Insurance restructuring (1), Increase in job responsibilities (1), Housing bonus (1), Guaranteed bonus (1), Excess contract dollars (1), Customer satisfaction (1), Cost of living (1), Change in position (1), Buyout bonus (1), Bonus in lieu of vacation (1), Bonus for pay cut (1), and Bonus for budget performance (1).

Hrs vs.Incr.

Hours	% Incr.	% Resp.
30-39	4.9	10.5
40-44	4.8	40.9
45-49	4.9	22.1
50-54	4.9	16.6
55-59	4.8	4.2
60-64	4.7	4.1
65+	6.0	1.5

Working More

Does working more imply getting a bigger salary change? The table at the right suggests that this isn't true for 2003 except in extreme cases.

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 experience − but the next ten years brings only a $3,000 average gain (thus demonstrating salary compression). The charts below show *total* compensation (after last year's salary change) vs. experience.

This table summarizes the experience vs. salary numbers for those reporting in US currency. The graphs below, 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, 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).

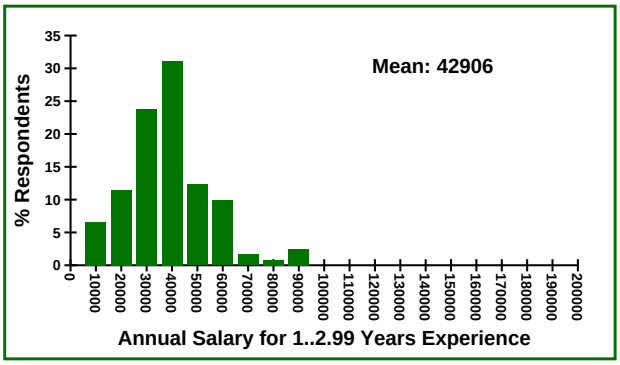
- The first column of statistics summarizes all respondents who meet the conditions above
- The second column of statistics restricts the first column by including only those who actually increased their salary in 2003.
- The third column of statistics restricts the first column by including only those 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).

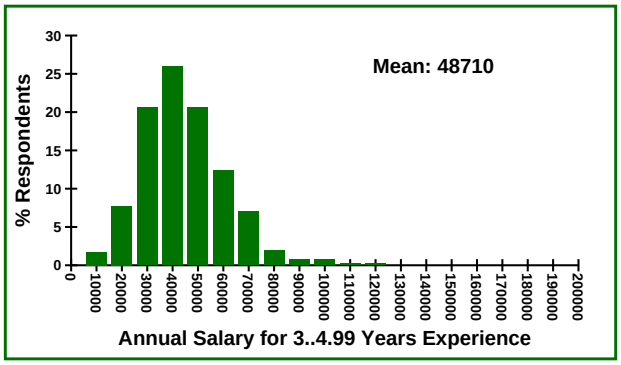
Note in all columns that while the percentage of increase ranges widely, the dollar increase holds much closer to constant across experience levels.

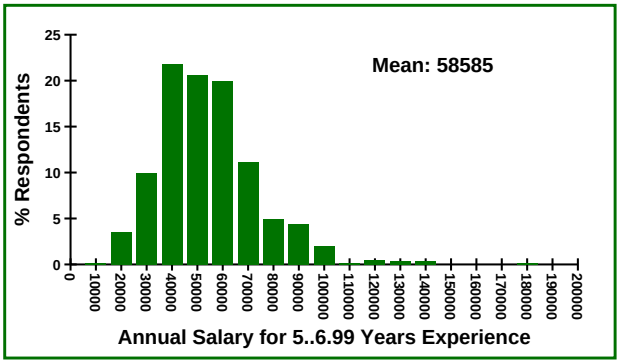
Adm. Experience vs. Salary and Increase

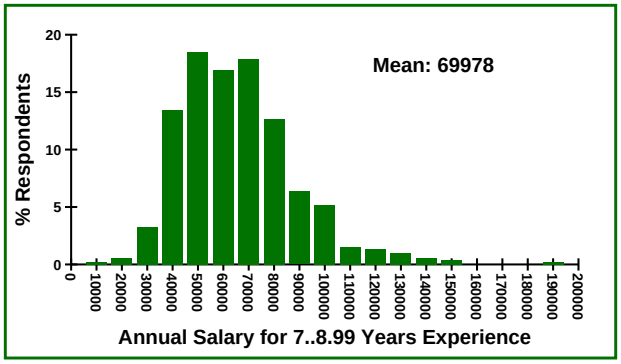
Exp Range	% Resp.	All Responses Sal.	All Responses --Incr--		Raise > 0 Sal.	Raise > 0 --Incr--		Same Co. >2 Yr Sal.	Same Co. >2 Yr --Incr--	
1..2	4.5%	42,906	7.1%	$3,027	43,322	10.7%	$4,619	43,146	7.8%	$3,354
3..4	15.2%	48,710	7.5%	$3,657	49,630	10.3%	$5,102	50,225	7.8%	$3,930
5..6	21.8%	58,585	5.4%	$3,144	59,077	8.8%	$5,204	58,381	5.6%	$3,269
7..8	19.2%	69,978	4.8%	$3,326	71,205	8.0%	$5,701	69,394	5.1%	$3,545
9..10	14.6%	75,138	4.1%	$3,077	74,413	7.1%	$5,296	75,203	5.3%	$3,969
11..15	15.3%	83,627	3.1%	$2,611	83,187	6.7%	$5,539	83,974	3.9%	$3,270
16..19	4.5%	89,189	3.1%	$2,786	89,542	5.2%	$4,668	86,200	3.9%	$3,402
20+	4.8%	86,619	2.4%	$2,088	84,181	5.7%	$4,757	86,537	2.8%	$2,404

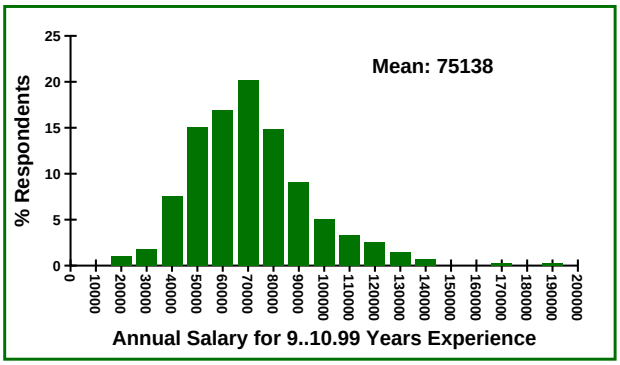
Below are the overall distributions for salary vs. experience, though they include all countries with no special processing for geography.

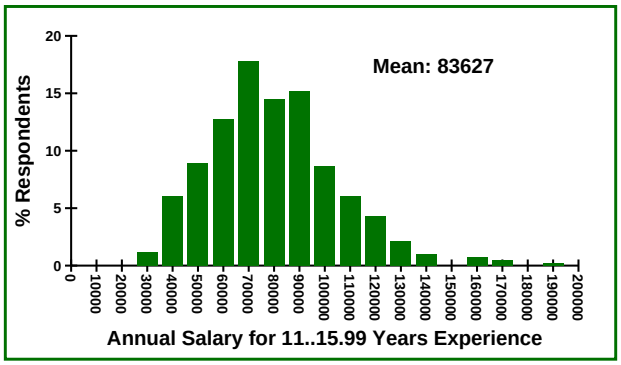


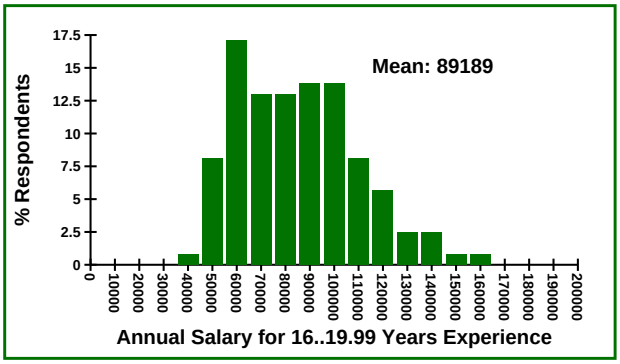


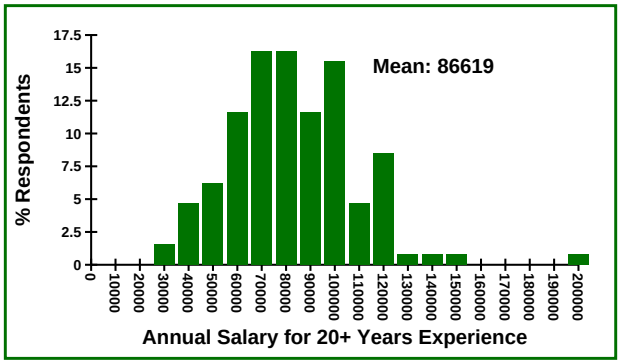












The charts show pleasing bell-curve distributions that connote the validity of the statistics. A small number of dramatically higher-paid respondents ups the average a slight bit in just about every chart. Checking the records, some of these were due to one-time bonuses for various reasons.

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 males/females broken out. The top chart includes the very high and very low salaries in addition to very positive and very negative salary swings.

Females seem to be overrepresented in the $50K-69K range and also in the $80K-89K range (again, potentially due to experience). They fall shorter in the $150K+ range, but not many people overall fit into the ranges (and thus this data is not a strong case for argument).

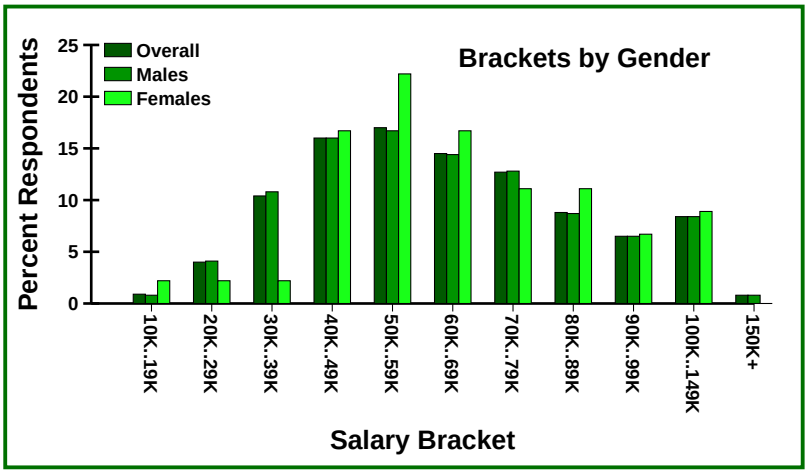
On the right below is a graphical representation of the same salary brackets by gender. Geneally, salaries for women keep pace with men throughout. This is good news for former victims of the ‘‘pink ceiling.’’

Salary vs. Years of Experience

	Overall		Male		Female	
Years	AvgSal	% Resp.	AvgSal	% Resp.	AvgSal	% Resp.
0..2	39,961	7.4	39,859	7.5	43,096#	5.0
3..4	47,085	16.4	46,692	16.4	55,542	15.6
5..6	55,594	21.8	55,611	21.9	55,185	18.9
7..8	66,922	18.9	66,827	19.1	69,105	15.0
9..10	72,310	13.4	72,547	13.4	67,427	13.3
11..15	79,851	13.8	80,826	13.6	65,543	18.9
16..19	87,089	4.2	87,964	4.0	77,127	7.2
20+	85,690	4.2	86,917	4.1	69,072	6.1

Increases by Gender & Sal. Range

	Overall		Male		Female	
Salary	N	Incr.	N	Incr.	N	Incr.
10,000..19,999	0.9%	0.4%	0.8%	0.3%	2.2%	2.0%
20,000..29,999	4.0%	1.2%	4.1%	1.4%	2.2%	-0.8%
30,000..39,999	10.4%	4.7%	10.8%	4.9%	2.2%	1.2%
40,000..49,999	16.0%	5.8%	16.0%	5.8%	16.7%	5.8%
50,000..59,999	17.0%	5.2%	16.7%	5.2%	22.2%	4.1%
60,000..69,999	14.5%	4.4%	14.4%	4.5%	16.7%	2.7%
70,000..79,999	12.7%	3.4%	12.8%	3.4%	11.1%	3.1%
80,000..89,999	8.8%	2.0%	8.7%	2.1%	11.1%	1.1%
90,000..99,999	6.5%	1.4%	6.5%	1.5%	6.7%	-0.3%
100,000..149,999	8.4%	2.8%	8.4%	3.0%	8.9%	-1.7%
150,000+	0.8%	0.2%	0.8%	0.2%	0.0%	0.0%



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.

The second chart on the right shows average salaries compared against 'relevant' education. The same trend holds. The next chart shows charts that factor in experience. The # means that the sample is probably too small to believe the numbers.

Generally, it appears that both education and longevity pay off. No respondent claimed a Ph.D. in a 'relevant' area.

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 on the next page shows how compensation varies in some of the larger tech cities. All salary reports are converted dollars using 13 Jul 2004 exchange rates.

Salary vs. Education

EducLevel	AvgSal	AvgInc	% Resp.
Ph.D./D.Sc.	81,075	5.4%	1.4%
Masters Degree	74,139	3.6%	10.6%
Bachelors Degree	64,568	4.6%	44.1%
Less than High School Diploma	62,354	8.6%	[14]
Some College or Technical School	60,730	5.1%	27.3%
High School Diploma	58,757	5.8%	4.9%
Technical Certificate(s)	56,498	4.8%	4.3%
Associates Degree	56,318	6.5%	7.0%

Salary vs. Relevant Education

EducLevel	AvgSal	AvgInc	% Resp.
Masters Degree	81,734	3.8%	[23]
Bachelors Degree	75,645	4.0%	6.7%
Associates Degree	64,446	4.8%	31.1%
Less than High School Diploma	63,591	4.8%	19.9%
Technical Certificate(s)	61,173	5.0%	22.6%
High School Diploma	60,905	5.2%	14.1%
Some College or Technical School	57,322	5.8%	4.9%

Salary and Incr. by Education/Exp.

Education level	0..1	2	3..4	5..9	10..14	15..19	20+
Masters Degree	63,892 8.6#	57,250 5.9#	---- ---	79,288 2.7	77,324 5.4	107,000 0.0#	108,333 2.9#
Bachelors Degree	44,675 5.3#	46,391 -0.2	59,618 7.1	71,266 3.8	85,705 3.6	87,313 4.0	90,847 2.8
Assoc. Degree	40,976 2.9	43,606 8.4	49,464 7.5	65,878 5.2	77,385 2.9	85,554 3.2	81,986 1.8
Some Coll/Tech Sch	51,600 10.5#	32,874 9.4	40,273 7.9	52,986 5.6	65,381 4.8	92,689 6.7	84,154 0.3
Technical Cert(s)	37,927 9.7	36,998 9.3	43,846 7.2	58,215 5.5	75,217 2.6	83,022 2.3	82,368 2.5
High School Diploma	57,000 8.7#	38,277 6.6	41,365 8.0	60,817 4.5	74,499 4.4	72,016 5.4	84,295 3.4
Less than HS Diploma	43,977 -0.5	41,586 7.2	46,456 6.9	63,577 5.1	78,323 3.5	83,923 2.5	78,980 3.2

Avg Salary/Raise by Area/Experience

Area	0..1	2..4	5..9	10..14	15..19	20+
San Francisco/San Jose/Silicon Valley, CA Metro Area	---- ----	62,011 3.7	88,048 4.0	106,359 1.1	106,093 -0.2	107,583 -3.6
New York Metro Area	58,000 5.5#	60,137 5.8	83,653 7.8	101,046 2.6	112,646 3.2	149,000 0.0#
Washington, DC Metro Area	45,466 15.7#	57,643 7.5	77,334 5.2	88,574 5.1	92,887 2.8	95,982 5.7
London, England Metro Area	---- ----	53,780 5.5#	71,625 4.0	137,232 7.2#	65,834 7.4#	---- ----
Los Angeles/Orange Co., CA Metro Area	60,000 20.0#	48,952 9.3	68,770 6.9	86,580 5.0	107,951 5.4	93,175 2.0
San Diego, CA Metro Area	40,000 6.7#	45,000 10.2	73,109 5.0	85,444 5.0	77,139 2.5#	102,500 -5.8#
Boston, MA, Metro Area	53,582 6.1#	58,520 6.6	72,478 3.7	75,022 0.7	82,477 2.2	86,135 3.3
Atlanta, GA Metro Area	---- ----	47,453 8.8	64,826 5.6	89,726 1.2	101,400 4.3	97,500 7.5#
Denver, CO Metro Area	57,000 0.0#	48,770 9.7	65,152 4.6	84,184 3.0	92,377 2.8	97,700 2.0
Dallas, TX Metro Area	---- ----	49,175 9.7	70,623 4.6	73,502 2.3	83,472 -0.4	92,000 1.1#
Chicago, IL Metro Area	37,500 14.7#	53,381 8.2	68,940 4.8	86,010 2.2	93,000 2.8	88,000 6.1#
Houston, TX Metro Area	---- ----	45,500 9.8	69,757 5.1	81,625 6.1	79,000 1.7#	46,500 -0.6#
Austin, TX Metro Area	---- ----	45,335 4.0	69,268 3.5	86,777 4.8	82,416 1.1	43,864 3.1#
Philadelphia, PA, Metro Area	---- ----	52,579 4.5	61,114 3.9	80,253 2.1	78,987 3.9	61,500 -13.2#
Research Triangle, NC Metro Area	---- ----	45,275 4.8	61,888 3.2	66,731 -0.1	84,250 -1.1	91,386 4.1#
Seattle/Redmond, WA Metro Areas	59,752 -10.1#	44,317 7.2	62,952 2.6	75,400 8.7	83,666 4.3	84,500 5.8#
Ottawa, ON Metro Area	70,901 13.2#	42,993 14.3#	55,313 2.1	62,744 3.7	66,375 4.5	---- ----
Sydney, Australia Metro Area	---- ----	27,278 13.0#	56,173 5.4	59,870 -1.1	62,214 2.8	80,789 1.8#
Toronto, ON Metro Area	---- ----	37,713 13.6	43,456 4.1	67,974 7.0	55,422 2.5	80,706 2.0#
Montreal, QC Metro Area	---- ----	31,271 7.2#	47,556 8.3	55,405 5.7	58,833 5.4#	---- ----
Vancouver, BC Metro Area	---- ----	33,102 8.9	42,227 6.6	60,040 0.6	60,342 11.1#	51,730 4.2#

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

SAGE Job Classifications vs. Salary

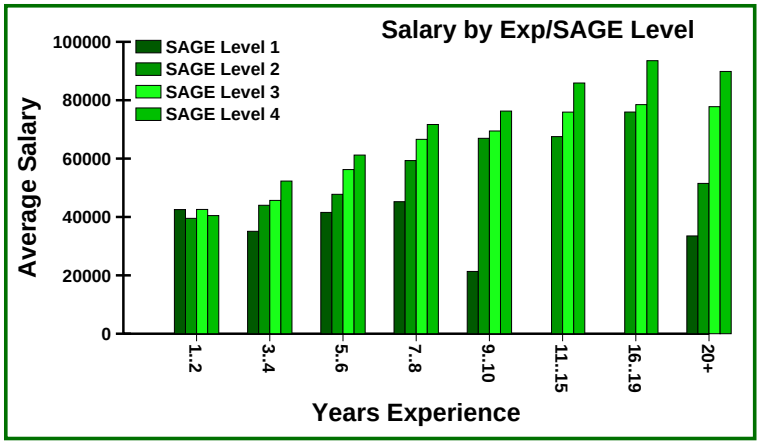
The SAGE job classifications are detailed previously. This table shows how classification and experience affect salary. Generally, higher numbers seem to appear exactly where one would expect.

Increase/Salary for SAGE Classif. and Experience

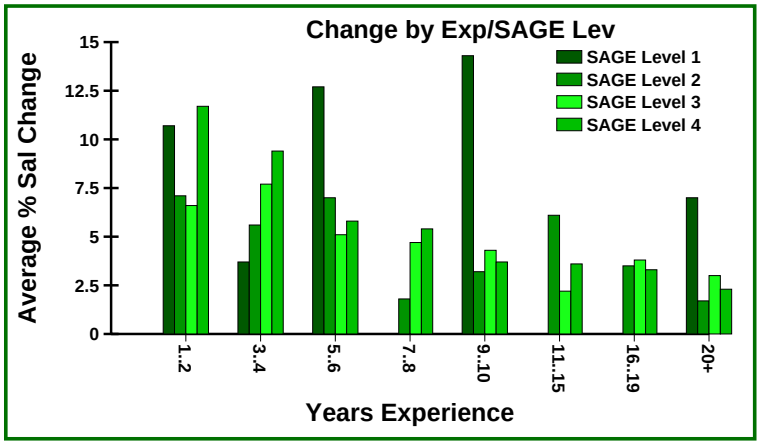
	Level 1		Level 2		Level 3		Level 4		N/A	
Exp Yrs	Sal	%Incr	Sal	%Incr	Sal	%Incr	Sal	%Incr	Sal	%Incr
1..2	42,533	10.7	39,528	7.1	42,577	6.6	40,470	11.7	43,642	2.7
3..4	35,087	3.7	44,004	5.6	45,674	7.7	52,300	9.4	50,371	6.1
5..6	41,559	12.7	47,762	7.0	56,239	5.1	61,206	5.8	44,580	1.3
7..8	45,232	-0.3	59,321	1.8	66,593	4.7	71,681	5.4	64,096	5.3
9..10	21,337#	14.3#	66,947	3.2	69,457	4.3	76,276	3.7	63,184	3.8
11..15	----	----	67,529	6.1	75,925	2.2	85,894	3.6	66,402	4.0
16..19	----	----	75,950#	3.5#	78,487	3.8	93,543	3.3	113,688	5.2
20+	33,500#	7.0#	51,500#	1.7#	77,785	3.0	89,855	2.3	72,000#	-10.4#

The '#' symbol means the number of respondents is small and not to be trusted too much. In fact, each of the observations that appears anomalous is indeed marked that it is not to be trusted.

On the right is a graphical chart of the salary. It is extremely intuitive, with higher salaries for more experience and higher apparently 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. The chart below explores 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 and Years of Experience

Title	2..4	5..9	10..14	15..19	20+
People mgmt	69,588 5.1	83,544 6.3	97,568 -0.2	100,379 4.6	102,817 3.3
Technical lead	52,812 7.2	71,059 4.4	85,949 2.9	90,858 3.8	92,890 3.2
Security	48,968 6.5	70,110 5.0	82,472 4.1	94,507 5.0	102,066 2.2
Other	46,040 5.0	61,997 6.2	81,035 4.5	78,121 3.1	73,718 2.0
Project mgmt	54,564 12.6	64,612 5.0	79,288 5.4	79,950 0.9	---
Databases	53,197 7.6	66,193 4.4	74,583 2.3	78,967 2.6	81,461 3.9
Server mgmt	44,763 8.3	61,659 4.9	74,109 2.5	76,445 2.6	77,626 2.5
Generalist	44,113 6.8	59,864 5.1	73,200 3.7	82,667 3.1	86,558 0.9
Networking	43,690 8.4	58,222 5.9	69,010 4.6	91,305 4.1	77,750 3.5#
Desktop	37,095 -0.1	44,821 4.0	54,374 2.5	51,600 3.2#	---
Help desk	37,967 7.6	38,476 4.4	50,567 7.5	75,139 3.3#	53,376 0.8#

Salaries (K$)/Raises by Region/Exp.

Region	1..2	3..4	5..6	7..8	9..10	11..15	16..19	20+
Akron	--- ---	50.9 7.4	60.1 7.9	82.6 5.3	62.9 4.6	88.6 7.1	--- ---	--- ---
Albany	--- ---	53.0 4.9	58.9 7.4	--- ---	--- ---	--- ---	--- ---	--- ---
Arlington	--- ---	59.2 7.2	57.3 3.5	82.5 7.7	98.9 4.0	77.6 -2.5	96.9 9.2	--- ---
Atlanta	--- ---	53.1 11.4	63.3 5.7	80.1 5.0	86.3 6.2	95.8 1.2	--- ---	--- ---
Austin	--- ---	52.2 5.2	65.4 5.2	69.3 2.9	83.7 5.3	93.7 4.5	--- ---	63.6 3.1
Balt/WashDC+	55.5 9.8	62.2 6.7	73.4 7.3	84.5 5.1	89.6 5.2	97.4 4.3	99.0 2.8	103.0 5.9
Boston+Area	--- ---	63.6 8.0	66.2 5.0	79.3 3.0	76.8 4.0	84.8 1.8	68.5 3.6	97.7 2.6
Chapel Hill	--- ---	50.6 5.7	59.6 -0.4	61.8 5.5	74.1 6.2	78.9 -1.5	--- ---	--- ---

Salaries (K$)/Raises by Region/Exp.

Region	1..2	3..4	5..6	7..8	9..10	11..15	16..19	20+
Charlotte	--- ---	--- ---	--- ---	76.8 6.5	--- ---	84.7 0.5	--- ---	--- ---
Chicago	--- ---	63.9 8.6	64.7 4.2	87.2 4.9	82.6 -0.2	94.6 3.8	--- ---	--- ---
Cincinnati	--- ---	--- ---	61.7 5.1	72.0 3.7	70.7 4.4	69.6 3.0	--- ---	--- ---
Columbia	--- ---	--- ---	--- ---	57.6 9.5	--- ---	--- ---	--- ---	--- ---
Columbus	--- ---	51.5 6.1	66.9 3.5	71.7 8.9	--- ---	82.0 2.9	--- ---	--- ---
Denver/Front Range	--- ---	51.4 9.4	66.5 7.6	71.0 2.1	79.8 1.3	88.4 4.3	108.2 1.0	106.1 1.8
Detroit	--- ---	55.0 10.2	63.0 10.8	62.5 -1.4	74.1 4.6	69.3 2.4	--- ---	--- ---
Fort Wayne	--- ---	53.2 1.8	87.2 2.9	77.9 2.2	86.4 3.3	--- ---	--- ---	--- ---
Houston	--- ---	--- ---	--- ---	70.8 4.9	--- ---	83.5 4.4	--- ---	--- ---
Indianapolis	--- ---	54.0 11.1	52.0 1.2	68.1 10.2	--- ---	--- ---	--- ---	--- ---
Kansas City	--- ---	--- ---	60.3 6.8	71.9 5.9	92.2 2.9	80.0 -0.4	--- ---	--- ---
Los Angeles	53.7 18.3	54.8 6.1	64.7 5.0	79.4 5.9	86.5 5.7	100.0 4.3	107.2 5.4	96.2 2.0
Miami/Ft.Laud.	58.4 1.7	--- ---	--- ---	--- ---	96.2 5.1	92.2 6.3	--- ---	--- ---
Milwaukee	--- ---	47.3 4.2	63.9 4.7	59.9 1.9	75.8 6.2	77.9 3.6	--- ---	--- ---
Mpls/St. Paul	--- ---	48.8 4.4	61.7 4.7	65.6 3.3	83.7 8.8	86.6 -4.5	--- ---	--- ---
Nashville	--- ---	53.1 13.1	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---
New York	--- ---	66.0 6.0	82.2 8.6	92.0 8.4	103.2 0.7	110.5 3.5	128.6 3.9	--- ---
Orlando/Tampa	--- ---	45.0 8.2	50.9 4.7	64.9 8.2	67.5 7.1	--- ---	--- ---	89.2 4.9
Philadelphia	--- ---	60.3 3.8	60.2 6.2	73.4 7.4	67.2 1.1	87.6 3.5	101.9 3.9	--- ---
Phoenix	--- ---	--- ---	48.3 8.2	67.0 4.2	75.5 3.3	--- ---	--- ---	--- ---
Pittsburgh	--- ---	56.5 10.2	58.9 10.1	73.2 0.5	--- ---	81.5 7.3	--- ---	--- ---
Portland	--- ---	51.2 13.2	64.1 6.8	69.3 2.1	64.4 1.8	74.5 1.6	--- ---	--- ---

Salaries (K$)/Raises by Region/Exp.

Region	1..2	3..4	5..6	7..8	9..10	11..15	16..19	20+
Richmond/Norfolk	--- ---	37.8 0.8	62.5 1.6	78.6 3.2	--- ---	81.0 5.7	--- ---	--- ---
Rochester/Buffalo	--- ---	53.0 9.6	55.3 7.1	58.3 0.7	64.0 0.6	--- ---	--- ---	--- ---
Sacramento	--- ---	51.0 2.7	70.3 5.8	--- ---	--- ---	81.8 0.8	--- ---	--- ---
SaltLake/Ogden	--- ---	47.2 8.3	63.6 6.6	66.0 5.1	--- ---	--- ---	--- ---	--- ---
San Diego	--- ---	--- ---	62.8 3.6	83.7 4.5	85.4 3.9	96.4 5.9	--- ---	--- ---
San Jose	--- ---	74.7 7.1	92.5 4.7	96.1 5.9	105.4 -0.4	113.9 0.4	110.4 0.9	117.8 -1.5
Seattle	72.7 -0.1	46.6 8.8	60.3 2.3	66.8 2.4	73.3 10.0	83.8 8.6	89.7 5.9	--- ---
St. Louis	--- ---	--- ---	--- ---	67.0 -7.5	--- ---	--- ---	--- ---	--- ---

And on the right is the same data derived from country codes.

Salaries (K$)/Raises by Region/Exp.

Region	1..2	3..4	5..6	7..8	9..10	11..15	16..19	20+
Australia	35.6 3.3	38.8 7.7	47.7 4.2	49.1 6.6	53.9 4.3	54.1 1.0	66.6 6.3	--- ---
Canada	36.8 8.7	39.7 10.4	42.7 5.0	48.5 7.5	59.5 5.6	67.4 4.0	70.8 6.2	64.7 4.6
Germany	--- ---	--- ---	66.6 13.9	--- ---	--- ---	--- ---	--- ---	--- ---
Ireland	--- ---	45.1 5.6	50.2 5.8	62.6 1.6	--- ---	--- ---	--- ---	--- ---
Netherlands	--- ---	38.1 4.5	49.3 4.6	53.8 5.4	--- ---	77.0 3.1	--- ---	--- ---
Norway	--- ---	--- ---	--- ---	--- ---	70.2 3.6	--- ---	--- ---	--- ---
Switzerland	--- ---	--- ---	--- ---	--- ---	88.4 -2.9	--- ---	--- ---	--- ---
United Kingdom	--- ---	47.9 2.4	57.2 5.3	81.9 -2.2	90.8 0.5	79.5 6.3	--- ---	--- ---

Only a few cities had enough data to derive per-focus comparisons. The tables on the next pages were derived both from zip/country codes and from self-described geography.

Atlanta, GA Metro

YrExp	Server mgmt	Technical lead
5..6	62.7 / -2.3	--- / ---
7..8	--- / ---	87.3 / 1.4
9..10	85.2 / 10.7	--- / ---
11..15	98.6 / 0.7	--- / ---

Denver/Front Range

YrExp	Generalist	Server mgmt	Technical lead
3..4	49.6 / 3.5	53.1 / 10.3	--- / ---
5..6	--- / ---	68.2 / 7.4	--- / ---
7..8	--- / ---	76.1 / 0.3	77.7 / 4.7
11..15	--- / ---	85.7 / 4.0	--- / ---

Boston+Area

YrExp	Generalist	Networking	Other	Server mgmt	Technical lead
3..4	61.2 / 10.0	--- / ---	--- / ---	67.7 / 9.9	--- / ---
5..6	63.8 / 6.6	--- / ---	78.8 / 9.4	71.9 / 3.3	65.1 / -0.4
7..8	72.2 / 4.9	79.3 / 4.1	--- / ---	82.4 / 6.0	92.7 / 2.7
9..10	69.0 / 2.6	--- / ---	--- / ---	72.8 / 2.3	94.1 / 10.9
11..15	74.5 / 4.3	--- / ---	--- / ---	84.3 / -2.0	92.7 / 1.0

Los Angeles

YrExp	Generalist	Networking	Server mgmt	Technical lead
3..4	52.7 / 0.8	--- / ---	54.7 / 12.3	--- / ---
5..6	66.8 / 9.0	54.2 / 4.5	60.9 / -1.9	61.2 / 8.4
7..8	92.3 / 7.6	--- / ---	61.3 / 6.3	--- / ---
9..10	84.2 / 7.3	--- / ---	87.8 / 1.5	--- / ---
11..15	95.6 / 6.6	--- / ---	92.6 / -1.5	111.6 / 4.1

New York Metro

YrExp	Databases	Generalist	Networking	Project mgmt	Server mgmt	Technical lead
3..4	82.8 / 6.7	63.4 / 7.2	--- / ---	--- / ---	--- / ---	--- / ---
5..6	--- / ---	52.7 / 6.5	81.2 / 11.6	--- / ---	97.0 / 8.4	79.2 / 12.4
7..8	--- / ---	83.3 / 6.1	66.5 / 8.3	--- / ---	97.7 / 9.0	126.9 / 5.5
9..10	--- / ---	83.3 / 2.6	--- / ---	104.2 / -0.2	113.0 / 0.6	--- / ---
11..15	--- / ---	106.7 / 0.4	--- / ---	--- / ---	108.2 / 7.9	--- / ---

San Fran./San Jose/Silicon Valley, CA

YrExp	Generalist	Networking	Security	Server mgmt	Technical lead
3..4	60.8 / 0.0	67.6 / 3.5	--- / ---	--- / ---	--- / ---
5..6	93.5 / 3.2	--- / ---	--- / ---	86.1 / 1.8	106.8 / 5.1
7..8	91.5 / 6.2	84.2 / 5.0	103.2 / 12.8	72.4 / -3.8	103.0 / 4.5
9..10	--- / ---	--- / ---	--- / ---	108.2 / 0.2	106.1 / -0.6
11..15	108.8 / 3.8	--- / ---	--- / ---	99.3 / -5.7	126.3 / 1.3
20+	104.3 / -8.1	--- / ---	--- / ---	--- / ---	--- / ---

Seattle

YrExp	Generalist	Networking	Server mgmt
3..4	47.2 / 5.1	51.5 / 12.4	43.5 / 9.2
5..6	60.0 / 4.2	--- / ---	58.0 / 1.2
7..8	--- / ---	--- / ---	66.6 / 4.7
11..15	--- / ---	--- / ---	70.4 / 6.3

Balt/WashDC+

YrExp	Generalist	Networking	Other	Security	Server mgmt	Technical lead
3..4	--- / ---	--- / ---	--- / ---	--- / ---	57.6 / 4.8	--- / ---
5..6	68.0 / 4.1	68.2 / 13.7	--- / ---	80.8 / 7.6	74.9 / 9.5	71.4 / 2.9
7..8	74.1 / 5.5	72.5 / 6.6	--- / ---	109.3 / -0.1	80.3 / 7.1	91.3 / 5.1
9..10	89.4 / 6.3	--- / ---	78.3 / 2.9	--- / ---	74.4 / 7.9	88.6 / 5.5
11..15	104.3 / 7.7	--- / ---	--- / ---	93.0 / 5.4	93.1 / 2.8	118.8 / 3.4

The next two charts show more aggregated areas, such as whole countries or large regions of the USA. All numbers are converted to USA dollars, since members of some countries reported their incomes in more than one currency.

Australia

YrExp	Generalist	Server mgmt	Technical lead
1..2	34.7 / 4.1	--- / ---	--- / ---
3..4	36.7 / 10.1	38.4 / 4.7	--- / ---
5..6	--- / ---	45.0 / 3.5	--- / ---
7..8	--- / ---	46.9 / 10.0	--- / ---
9..10	52.6 / 6.2	--- / ---	56.7 / 2.9
11..15	45.2 / -4.0	60.4 / -1.5	--- / ---

Canada							
YrExp	Generalist	Help desk	Networking	Other	Security	Server mgmt	Technical lead
3..4	39.9 / 11.0	--- / ---	37.3 / 12.2	--- / ---	--- / ---	40.9 / 9.8	--- / ---
5..6	39.2 / -1.0	38.9 / 2.0	46.6 / 12.1	44.5 / 4.9	--- / ---	40.4 / 8.8	45.8 / 5.5
7..8	42.0 / 8.0	--- / ---	--- / ---	--- / ---	--- / ---	51.2 / 8.9	--- / ---
9..10	62.6 / 4.3	--- / ---	--- / ---	--- / ---	--- / ---	62.1 / 8.7	57.0 / 1.9
11..15	75.5 / 6.2	--- / ---	--- / ---	--- / ---	59.4 / 3.9	67.5 / 3.6	60.8 / 1.2

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 you can't tell from the chart) but also have more admins in the higher pay brackets (something the chart shows very clearly).

Salary vs. Company Size								
Salary	0..9	10..49	50..99	100..499	500..999	1000..4999	5000+	Total
0..29,999	24.8	12.2	10.4	6.9	7.5	5.0	3.7	6.8
30,000..39,999	21.6	15.9	12.8	13.6	12.9	9.3	8.3	11.3
40,000..49,999	14.4	22.9	18.8	18.6	17.6	16.6	13.1	16.4
50,000..59,999	6.4	16.9	19.8	15.4	16.5	15.0	17.6	16.5
60,000..69,999	8.8	11.3	11.1	14.3	14.5	15.4	14.8	14.0
70,000..79,999	8.0	8.1	9.0	10.9	11.4	12.4	13.8	11.8
80,000..89,999	3.2	5.5	6.2	6.7	4.7	10.6	9.0	7.8
90,000..9,9999	4.0	2.8	5.2	4.5	6.3	4.4	7.9	5.8
100,000..149,999	7.2	4.2	5.9	8.4	7.8	10.1	10.9	8.9
150,000+	1.6	0.2	0.7	0.7	0.8	1.3	0.8	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Salaries by Industry Size

Charts on the next pages show salaries and increases on an industry-by-industry basis with columns representing different sizes of a given organization. **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	47,159	2.1	43,735	-2.9#	----	----	53,875	13.0
Advertising, PR, Marcomm	55,721	7.9	71,950	5.6	81,181	2.6	73,721	6.1
Aeronautical/aerospace	50,000	-9.1#	62,759	8.8	60,000	3.4#	71,101	3.5
Agriculture	70,500	7.2#	65,000	8.3#	----	----	59,166	6.5#
Architecture (buildings)	82,276	21.6#	55,110	13.8#	----	----	78,000	2.6#
Automotive	72,000	7.5#	36,666	6.7#	46,022	8.7#	62,311	8.4
Biotechnology	70,460	12.0	79,500	4.9#	114,111	9.5#	81,450	0.9
Broadcasting/Cable/Video	56,222	-6.2#	52,608	5.7	90,615	11.8#	77,046	1.3
Chemical	28,140	8.7#	25,645	3.0#	----	----	75,776	8.0#
Computer HW/semicon-ductor	70,740	3.3	83,690	-0.1	71,861	3.7	80,727	3.3
Construction	48,225	15.8	51,750	11.7	31,528	10.0#	50,425	8.9
Consulting/Bus. Svcs	57,942	2.5	71,408	4.3	72,141	9.9	75,054	5.1
Defense	75,971	8.4#	71,611	10.3	----	----	75,276	6.4
Distribution/Warehousing	43,911	-7.8	60,214	7.4	55,000	6.5#	57,530	0.8
Education (Commercial)	38,468	4.1#	66,000	6.5	54,700	12.2#	56,942	3.6
Education − Coll./Univ.	47,684	5.8	52,938	4.1	56,326	4.0	56,738	3.9
Education − Elem./ Sec-ond	54,000	2.7	41,573	5.6	49,068	10.1	45,094	6.7
Energy/Oil & Gas	63,839	1.0	52,692	12.4	30,000	20.0#	82,228	1.5
Engineering	67,239	2.6	59,968	6.2	74,666	-2.4#	66,621	6.8
Entertainment	72,377	6.8	73,507	12.4	72,166	-2.3#	79,359	2.9
Environmental Svcs	37,357	5.3#	62,279	11.3#	52,803	5.8#	37,360	9.2#
Financial svcs	64,266	7.4	75,556	7.2	68,482	7.3	86,485	5.4
Food	31,666	-2.7#	43,987	7.5	----	----	58,119	13.3
GIS	51,672	12.1#	45,000	0.0#	----	----	51,228	8.7#
Gambling/gaming	51,382	10.0#	60,123	13.3#	40,000	11.1#	49,044	8.2#
Gov't − Military	62,000	5.2#	51,500	14.7	75,000	5.6#	67,986	7.3
Government − Non-Military	49,305	4.8	51,461	5.4	51,012	5.1	63,628	4.3
Govt − Contracting	50,285	6.7	72,348	9.9	64,558	11.7	73,174	6.3
Health Care, Medicine	59,214	5.2	62,582	5.4	62,345	2.2	67,680	5.1
Hospitality	52,463	-6.7#	29,336	8.2#	----	----	55,400	9.9
Human resources/recruiter	65,000	4.8#	42,000	10.6#	----	----	59,400	1.7
IT: Consulting	54,463	3.0	56,151	9.2	50,533	-11.8#	67,550	3.0

Salary/Raise by Industry & Size

	0..99		100..499		500..999		1000+	
IT: Databases/data mining	45,214	6.7	65,330	3.6	----	----	77,857	6.4
IT: ISP/ASP	52,128	4.0	64,855	6.8	57,722	12.0#	72,697	5.2
IT: Other	48,272	1.3	71,660	4.6	78,230	4.2	64,852	5.7
IT: Security	62,940	4.7	83,807	7.0	51,672	0.0#	77,706	2.0
IT: Software Development	54,807	5.2	73,376	3.2	75,868	2.9	76,810	5.5
IT: Web dev./webmaster	59,786	1.1	63,276	4.9	47,500	5.6#	79,323	5.3
Insurance/risk mgmt	66,900	6.5	64,900	5.7	97,833	-0.8#	66,165	4.9
Intellectual property	82,500	5.1#	82,000	3.8#	----	----	----	----
Legal	63,761	6.5	62,400	4.4	60,000	9.1#	88,635	4.9
Library	59,651	5.0#	33,490	5.7#	----	----	64,362	3.0#
Manufacturing	54,250	6.6	54,251	5.5	55,438	5.4	68,863	5.8
Military	----	----	45,619	5.0#	21,667	-27.8#	44,700	10.2
Mining/Energy	----	----	----	----	----	----	62,581	4.9
Not-for-profit	61,659	4.6	54,583	7.6	53,367	6.8	54,522	7.1
Other	55,056	4.3	58,751	3.8	67,837	-13.5	78,502	3.6
Pharmaceuticals	57,700	-1.8#	68,738	15.9#	68,750	9.0#	78,046	6.7
Political	----	----	----	----	13,867	26.1#	----	----
Publishing	62,172	6.9	54,472	1.4	83,000	1.9#	82,452	3.4
Real Estate	55,375	6.5	55,618	11.4	78,000	12.9#	55,333	15.0#
Religion	28,500	9.6#	52,000	4.0#	----	----	----	----
Research	62,543	4.0	46,533	3.9	46,273	7.0	71,381	5.6
Retail	34,741	5.3	63,042	6.3	55,829	9.4	72,684	2.9
Services (other)	44,062	1.2	52,041	8.6	75,000	2.7#	72,209	2.9
State or Local Government	42,600	10.3#	44,531	5.3	46,795	5.8	50,291	7.5
Telecommunications	64,547	2.0	58,131	5.7	60,867	5.0	72,739	4.3
Transportation	----	----	43,204	9.7	52,000	3.0#	65,295	4.3
Travel/Recreation	58,000	5.5#	60,007	-1.9	----	----	68,910	3.3
Utility	42,608	5.8#	68,636	6.1	39,918	7.7#	71,136	4.4
VAR	57,361	4.2	75,000	10.3#	38,468	8.5#	109,000	-1.8#
Wholesale	43,500	0.4#	52,562	6.4	39,833	8.1#	48,500	-11.0#

Salaries by Industry and Experience

Charts on the next pages show 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 a higher remuneration.

Salary/Raise by Industry & Experience

	1..3		4..6		7..9		10..14		15+	
Accounting	----	----	33,600	5.4	54,300	7.3	70,000	-22.2#	73,000	12.3#
Advertising, PR, Marcomm	45,977	7.3	59,871	5.4	78,841	6.9	70,773	7.2	94,666	1.9#
Aeronautical/aerospace	47,467	10.6	63,844	-1.6	62,526	4.2	69,565	1.4#	92,077	3.8
Agriculture	44,000	4.8#	45,000	11.1#	83,166	5.0#	----	----	----	----
Architecture (buildings)	45,000	28.6#	62,000	10.7#	82,012	13.9	----	----	----	----
Automotive	52,683	9.4#	47,424	8.3	71,539	9.3#	81,666	5.7#	----	----
Biotechnology	52,666	15.8#	57,871	0.8	80,833	10.2#	93,600	4.0	95,342	7.4
Broadcasting/Cable/Video	41,786	8.1	59,761	5.0	79,006	-1.5	84,640	3.1	104,000	-3.3#
Chemical	28,140	8.7#	25,645	3.0#	77,000	10.0#	74,553	5.9#	----	----
Computer HW/semicon-ductor	48,738	3.9	64,867	3.9	82,527	3.5	92,333	2.4	97,108	1.1
Construction	43,225	18.9	48,705	8.6	50,850	11.5#	44,000	4.8#	71,000	9.2#
Consulting/Bus. Svcs	35,411	0.9	55,576	8.1	70,863	1.1	80,539	3.9	94,588	1.9
Defense	68,781	10.5	58,737	6.9	53,378	2.8#	84,165	5.0	85,688	10.8
Distribution/Warehousing	55,750	14.8#	43,935	-3.2	54,333	4.0#	67,666	0.9#	70,400	4.9
Education (Commercial)	30,000	15.4#	59,919	5.6	65,488	4.5	40,991	2.5#	----	----
Education − Coll./Univ.	39,103	5.9	50,222	4.2	57,075	4.1	62,857	3.6	69,647	2.8
Education − Elem./ Sec-ond	32,797	8.7	45,152	6.3	52,064	7.7	67,450	1.6	50,821	7.2#
Energy/Oil & Gas	50,257	7.6	73,180	4.5	62,311	4.1	83,729	1.8	96,822	1.5#
Engineering	51,814	9.1	52,295	5.8	60,876	4.9	79,740	4.0	79,707	4.7
Entertainment	40,479	9.9	61,542	4.5	93,411	-0.2	76,504	4.3	98,380	8.4
Environmental Svcs	38,857	10.3	----	----	52,803	5.8#	----	----	59,279	3.3#
Financial svcs	48,046	8.1	64,410	8.3	88,195	6.4	95,231	3.2	100,789	3.5
Food	31,474	10.7	50,329	6.3	----	----	61,000	5.8#	62,000	2.5#
GIS	49,448	8.1#	----	----	----	----	56,457	12.9#	46,000	4.5#
Gambling/gaming	----	----	41,500	14.5	58,299	7.3#	69,247	2.1#	----	----
Gov't − Military	30,000	25.0#	63,625	13.5	59,387	4.7	66,596	6.8	83,527	3.6
Government − Non-Military	39,400	8.5	47,644	7.9	55,513	4.0	66,881	4.1	79,216	1.7
Govt − Contracting	52,549	6.7	58,341	9.2	74,417	6.6	82,923	7.1	78,115	6.3
Health Care, Medicine	40,892	6.3	58,741	8.0	66,154	4.4	72,083	2.5	87,017	2.5
Hospitality	19,000	13.7#	51,500	5.6	52,927	0.0#	54,224	5.6#	----	----
Human resources/recruiter	39,303	9.6#	44,000	-1.7#	73,699	5.5	----	----	----	----
IT: Consulting	35,488	7.3	44,908	4.0	64,497	3.4	70,103	2.8	83,288	-0.1

Salary/Raise by Industry & Experience

	1..3		4..6		7..9		10..14		15+	
IT: Databases/data mining	46,000	12.0#	73,000	8.8	51,350	3.5	64,562	2.5#	83,725	3.1
IT: ISP/ASP	36,715	5.7	56,514	6.1	65,150	4.9	79,273	0.8	89,248	8.7
IT: Other	39,097	7.4	52,369	4.0	67,915	7.2	83,119	-0.3	80,143	2.2
IT: Security	59,376	5.0	53,766	5.6	48,004	-6.6#	95,764	7.2	95,947	5.9
IT: Software Development	45,627	5.7	53,769	6.5	71,889	5.7	79,277	3.3	90,326	0.1
IT: Web dev./webmaster	43,058	16.4	55,313	-0.4	64,492	0.7	70,916	1.3	98,441	0.8
Insurance/risk mgmt	43,944	0.6	44,845	6.4	74,996	7.3	83,151	1.9	87,777	4.2
Intellectual property	----	----	65,000	4.8#	----	----	82,000	3.8#	100,000	5.3#
Legal	58,350	12.8#	57,627	9.7	93,875	5.1	74,467	-1.1	140,000	3.7#
Library	----	----	63,725	2.8#	46,570	5.4#	65,000	3.2#	----	----
Manufacturing	41,764	9.7	50,853	7.0	60,212	5.6	76,425	4.7	84,913	2.1
Military	21,667	-27.8#	36,500	10.1#	50,166	10.3#	49,000	4.3#	42,239	5.7#
Mining/Energy	29,935	3.8#	36,000	9.1#	53,553	4.4#	85,333	4.1#	----	----
Not-for-profit	43,444	18.4#	49,363	8.2	64,226	4.6	66,840	-4.4	74,600	3.0
Other	35,873	0.4	60,685	4.6	63,151	2.6	89,518	3.2	87,651	1.4
Pharmaceuticals	48,750	4.5#	69,802	6.2	74,142	13.4	97,000	5.4#	85,625	5.1
Political	13,867	26.1#	----	----	----	----	----	----	----	----
Publishing	42,456	4.2	61,887	7.2	72,495	2.3	81,500	3.7	111,000	2.3
Real Estate	38,260	22.9	52,750	6.2#	67,309	8.7	75,166	4.5#	----	----
Religion	----	----	40,250	6.8#	----	----	----	----	----	----
Research	43,283	10.6	52,728	3.8	70,770	4.9	72,560	4.1	84,650	5.0
Retail	39,939	9.4	54,851	3.8	74,873	5.5	82,528	3.3	70,618	-2.3
Services (other)	45,000	4.7#	44,731	1.7	73,007	6.8	65,000	-4.4#	51,000	0.0#
State or Local Government	33,247	7.1	42,944	7.1	62,186	7.2	58,336	4.8	52,000	6.1#
Telecommunications	45,216	7.2	56,329	5.6	75,592	2.6	74,863	4.5	86,739	1.6
Transportation	41,544	6.4#	54,810	3.7	53,007	6.1	56,000	7.7#	94,000	9.0#
Travel/Recreation	37,000	2.8#	47,588	7.4	73,500	-14.5#	81,687	-2.3	80,121	4.0
Utility	43,078	8.8	62,314	7.3	72,200	2.2	77,109	4.7	80,647	6.2#
VAR	40,000	3.9#	33,085	4.1#	56,734	9.4#	96,000	1.6#	77,500	4.1#
Wholesale	36,500	7.4#	42,678	1.4	50,750	4.4#	----	----	77,000	2.7#

Certifications and Salary

Often, a certification means a higher salary. Many times, though, this isn't true. The Boston area, particularly doesn't seem to value certs much at all! This chart is skewed a bit by people changing jobs, but does have interesting data to suggest that certifications are not a good way to predict salary (since sometimes they help and sometimes they don't).

Many respondents were certified on one or more technologies or products. The chart below shows regional mean salaries (by experience) for those without a certification (before the slash) and those with (after the slash). A bracketed number, if present, shows the statistical significance level of the means. A level of 0.05 means ''95% of the time this is not a statistical coincidence''. The gray boxes indicate a decrease in compensation due to being certified.

Mean Salaries Without/With Any Certification [and T-test Significance]

Region	1..2	3..4	5..6	7..8	9..10	11..15	16..19	20+
Balt/WashDC+	---	54.1 84.2 [0.01]	65.1 74.0 [0.1]	76.0 83.0	74.4 91.3 [0.05]	97.9 84.4 [0.1]	---	---
Boston+Area	---	60.4 55.0	62.6 59.3	71.7 73.2	73.2 70.5	77.3 77.1	---	---
Chicago	---	---	---	90.6 74.9 [0.025]	---	---	---	---
Los Angeles	---	---	51.7 65.4 [0.05]	80.2 67.0	---	91.0 93.6	---	---
New York	---	---	73.6 70.3	86.1 91.0	---	112.1 102.7	---	---
San Jose	---	---	90.0 78.8	90.9 91.3	---	114.3 106.4	---	---
Seattle	---	---	56.7 61.4	---	---	---	---	---

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
36.5	Did not receive at least 4% raise	1.4	Publicized achievements
15.8	Performance	1.2	Earned a certification
14.8	Achieved goals	1.1	Salary freeze lifted
12.4	Annual raise	1.1	Departure of others
9.7	Increased responsibilities	1.1	Changed to management
9.3	Worked hard with a positive attitude and ethic	1.0	Threatened to leave/quit
6.8	Maintained stable netwk/system	1.0	Other
5.1	Became involved in a high-profile project	[40]	Leveraged a salary survey
4.3	More active planning/mgmt role	[34]	Upgraded skills via education
4.1	Changed (reclassified) position	[31]	Raise to combat other job offer(s)
3.2	Client/customer satisfaction	[29]	Collective bargaining/union
3.0	Long time without raise	[29]	Corporate success/profit sharing
3.0	Cost of living adjustment/COLA	[24]	Earned a college/advanced degree
2.9	Promotion	[23]	Probation ended
2.9	Changed employers/job	[21]	Improved speaking, writing, and/or presentation skills
2.7	Requested/negotiated salary increase	[19]	Contractual
2.7	Standard/across-the-board raise	[15]	Relocation within same company
2.1	Longevity	[13]	Went into consulting
1.7	Stayed in position (vs. 'quitting')	[8]	Corporate buyout/takeover
1.5	Increased hours/overtime		

Job Likes

What do admins like about their jobs? It turns out that the #1 property cited by respondents was a casual work environment, cited by just under one third of those who answered this question. Second place was 'challenge,' with quality of coworkers, environment flexibility, and job stability rounding out those marked by more than 20% of the survey participants. The table below shows the entire set of standard responses:

Favorite Job Properties

Percent	Property	Percent	Property
35.5	Casual dress, atmosphere, environment	7.2	Standard workweek
29.4	Challenge	5.9	Dynamic environment
23.5	Co-workers	5.7	Walled offices
20.9	Learning on the job	5.7	Telecommuting
20.3	Flexible working environment, freedom	4.4	Family friendly
19.3	Stability, job security	4.2	Vacation/sabbatical policy
16.9	Salary/compensation	4.2	Comp time
16.8	Employment in current economic climate	4.0	Pension/retirement program
16.6	Flexible hours	4.0	Subsidy for cell, home telecomm, hardware
15.9	Technology, advanced equipment, fast internet	3.3	Free or cheap food, drink at work
14.5	Job satisfaction	3.2	No on-call/pager/overnight/weekend
12.9	Small company environment	2.4	Enlightened policies
12.9	Fun	2.3	Stock purchase, grant plans
12.5	Location/commute time	2.1	Gym/pool/health club membership (or on-site)
12.2	Benefits	2.0	Facilities, phys. environment
12.0	Respect, trust	1.8	No overtime
11.8	Management/boss	1.5	Social activities
11.6	Responsibility	1.5	Discounts, free merchandise
11.6	Academic environment	1.2	Short workweek
10.3	Projects	1.1	Transportation (company car, free parking, bus subsidy, carpooling, etc.)
10.1	Future potential	[37]	Smoking policy
9.6	Specific technology that you use (e.g., MS, Opensrc)	[34]	Dogs allowed at company
9.6	Self-determination (of all kinds)	[29]	Travel, cruises
8.9	Sense of achievement	[23]	Movies, entertainment
8.7	Special hardware (e.g., laptop, supercomputer)	[19]	Special rewards (e.g., cruises)
7.9	Variety of tasks	[19]	Sabbaticals
7.8	Culture	[17]	Green card assistance
7.2	Education, tuition, training, incl. conferences	[9]	Child care

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? Corporate management issues! Look at the breakdown (bearing in mind respondents could cite more than one dislike): bureaucracy/paperwork at 24.1%, management [in]competence at 22.8%, leadership issues/poor vision at 18.8%, not enough staff at 17.8%, politics at 17.0%, and budgets at 14.8%.

Next up were compensation issues: 21.8% respondents felt they were poorly compensated; 17% didn't feel salary increases came often enough; 12.5% had problems salary and benefit issues. Morale, boredom, respect, interruptions, and conflicting demands rounded out the top 15. See the chart.

Worst Job Properties

Percent	Property	Percent	Property
24.3	Bureaucracy, paperwork,	7.6	Lack of peers
23.2	Management competence	7.3	Cost of living
22.2	Bad compensation	7.2	Commute
18.9	Leadership/poorly communicated vision	6.8	On-call or pager/mobile phone issues
17.8	Not enough staff	6.6	Coworkers
17.4	Infrequent salary increases	6.2	Lack of accountability
16.7	Politics	6.0	Lack of trust
15.3	Advancement: Ceiling or too slow	5.7	Management stability
14.8	Budgets, funding	5.7	Working outside general job description
13.6	Morale	5.6	Work hours
12.3	Salary, benefit issues	5.6	Coping with growth or force reduction
12.3	Boredom	5.4	Unrealistic job performance expectations
11.9	Conflicting demands	4.6	No conference attendance
11.5	Continuous interruptions	3.9	Keeping up with advances
11.4	Poor respect, low value, poor visibility	3.8	Bad retirement plan
11.0	Bad infrastructure	3.8	Ethical issues
10.0	Lack of training/cont. ed.	3.5	Culture
9.9	Poorly communicated or differentiated priorities	3.4	Customers/clients
9.6	Vision, future planning (lack thereof)	3.4	Inflexibility
9.1	Lack of opportunity	2.6	Location
9.1	Infrequent salary reviews	1.7	Discrimination/tolerance issues
8.6	Cubicles/offices/noise	1.5	Specific vendors (or lack of specific vendors)
8.5	Excessive on-call time	1.5	Travel
8.2	Corporate stability, layoffs	[22]	Safety
8.2	Inability to see reality	[20]	Smoking policy
7.8	Interruptions		

Just under 2% of the respondents wrote an extra comment for the 'other' category. These included leadership issues, dress codes, human resources, 'executive greed,' lack of time off, lack of benefits, 'Microsoft culture,' outsourcing, Sarbanes-Oxley, slow reimbursement, union problems, training issues, policies on pets at work, 'everything,' interaction with human resources, nepotism, overtime/on-call compensation, outdated equipment, parking, and stress.

Survey Comments

Hundreds of people entered comments in reply to a question about the state and future of the system administration profession. They have been partitioned into sections with related topics:

- Frustration
- The Profession
- Advice
- The Future

Interestingly, the 'Optimism' category was missing this year.

Generally, duplicated comments are not shown. Those comments displayed are intended to represent the ensemble of all respondents without displaying the same thought over and over again.

Frustration

Dozens of comments centered on outsourcing and its horror. They are the same as found all over the net and are generally not shown here.

It's a thankless job.

Future not so bright, shades no longer required.

We're doomed, I tell you. DOOOOOOMED!!!!!

You may need to place the Indian Rupee above the US Dollar for convenience purposes based on offshoring rate.

I'm depressed. I'm now making less than when I first started years ago, as if my career has been wiped away.

Too many people with MCSE's who think they know everything

Working for security vendor has opened my eyes to how poor the general level of IT competence is in general society. Everyone is familiar with idiot PHBs, and they are indeed everywhere − the frightening/depressing thing is the number of clueless cheesebrains are earning twice my salary.

I think system administrators in general, and possibly the IT field as a whole, is being taken for granted. Companies want your loyalty and hard work and are not willing to extend the same to you. I also think the medium to large corporations in the US are too highly focused on quarterly results and the upper echelon of corp management has become too greedy for it's own good.

Make the MS machines go away. Please make them go away.

I think that Sys Admin jobs will become more and more commoditized. I also think that newer admins don't really understand how things work, or why they work. This is mostly a problem in the Windows world where lots of the nuts and bolts are hidden from view by wizards and Microsoft's love of obfuscation.

Sys Admins (including Network and Database Admins) are far and away the -MOST- under-appreciated and underpaid employees of every single company on the planet (while at the same time being among the most important!). If you are thinking of be-

coming a Technology Admin for a company, think again. Managers/owners only care about money, which means they only care about cash flow, which means they only care about Accounting employees. It's the same everywhere.

System Administration??? LOL, no such thing anymore. We are all glorified CSR's, and we are being pushed closer and closer to the front lines, closer to the customers. We work on the servers and we take the calls and we get reamed and get more work piled on us and we are told to work more efficiently. System administration needs to go back to the nice dark little closet.

We are overworked, underpaid and under-appreciated :)

The management in my department has threatened to replace me with a lower paying position. The secretaries and administrative support folks make as much money as I do, even though they are not as skilled or required to keep up with technologies. I feel under-appreciated as a result.

What can I say? It's a stressful, non-visible task with little or no reward for reaching targets. Sales teams rely heavily upon you, I even make sales but do not receive any of the benefits from this which the sales staff do. Training and personal growth are not regarded as important, maybe a more forward thinking company would be the way to go!

Currently working as the system administrator for a small company (approx. 75 people) I'm the only "IT Guy" I do everything from help desk to IT manager (budget, policies, etc.) I feel like I'm labeled as a Systems Administrator but in reality I do so much more and should be compensated more.

[And a glimmer of hope...]

I'm finally starting to see some of the incompetent system administration staff at my site leave the organization, voluntarily or involuntarily, or else work harder "under the gun". I expected this to happen as budgets got tighter; at least at my site, that was actually a good thing to happen for the rest of us.

Profession

While outsourcing is no doubt clobbering the programming industry, I don't see it having such a large effect on administration of the network and related jobs. Most companies aren't keen on sending their datacenter off to Gadzookistan, and as for computer support within the organization, it's like Janitorial Services... you can hire it out to someone else if you like, but they have to be local to your area. Administration and hardware-related jobs have more security right now than software.

System Administration is a lot more than something to do with stable servers and networks. Systems is just that "systems" and it is inherent in the very fabric of business itself. The sooner that is recognized the more success everyone discover. Executive decisions need to begin to be reflected in the infrastructure that drives them.

UNIX is cool, sys admin is cool, large scale corp IT is not. To paraphrase a book I read recently: "IT is not like football. In football the coaches are proud of star players; in IT the managers/execs want to be the star players as well."

System administration may diminish as a career choice. The need for technically knowledgeable people (system admins) is likely to diminish as hardware and software are improved and commoditized into 'appliances' that enable quick cheap deployment of plug-and-play networks of systems. Granted, this evolution won't complete in 2004, but clearly the trend is there. Just as IBM customer service engineers no longer use soldering irons to make field repairs or cable modems and DSL connections evolved to be an end user task, so too with some current system administration tasks. Automation

or commoditizing of system administration is likely to impact small organizations, perhaps less than 100 people, first and most. These organizations are likely to remain strongly influenced by technology marketing at the retail level (Best Buy, Circuit City, CompUSA, Fry's).

Larger organizations will also feel the effect. Just look at the offering of blade servers from Sun, IBM, and HP. The management of multiple servers is being automated and commoditized by the large hardware vendors.

I'm not suggesting that system administration will completely die, I'm only pointing to the obvious trend that some technical tasks (previously created, customized, or automated by us) will be administered directly by the appliances with no need of decision or selections by system administrators. The machines will be taking more responsibility for themselves ... sort of speak.

So where does that leave us? Maybe to focus on more important stuff. Maybe evolving into another job with a new more descriptive name. Maybe we'll be the new managers of the information robots team. Or maybe we'll just be unemployed.

System administration suffers from a general recognition of its interrupt driven nature, along with any understanding by upper level management with respect to what system managers do. Much of this is our own fault, due to failure to do reporting to our bosses along with a failure to have an overall understand of our role w.r.t. people and computing infrastructure.

The field is also hurt by a large number of people in it who are often undereducated compared to the people they work with − which results in a general 'looking down' by people (database administrators and developers) in other areas.

Employers need to have a better grasp of exactly what is is that system administrators do and why our job function is so important.

At five years, I'm one of the newest employees at this company. Most of the people I work with have 10+ years, and it's not at all unusual for people to have 15-20 years in. Systems administration shouldn't be a rock-star job. There shouldn't be some meteoric rise through payroll and seniority. It should be a steady progression that will not always be reflected in title or salary. Those things will come in time, as you become the person who "knows everything."

Too often, the dissatisfied sysadmins I meet are hoping for a quick payoff or griping about any slight they can imagine. The truth is, all of those things our parents told us when we were young are true about this job too. Do good work. Try to learn and improve constantly. Try to keep a good outlook. In the end, it should pay off.

The biggest problem I'm experiencing currently is now that technology is so widespread and that non-IT managers read the latest "trends" in magazines such as Business 2.0, many managers are forcing themselves into technology decision-making roles when they have absolutely no competence to do so. This is disrupting workflow, time and wastes tons of money.

I am very worried by the general public's view of system administration. They have little understanding of the position, little respect for those that do it, and continually ask for more production with fewer resources in a increasingly complicated domain. This trend has been slowly increasing for years, and I am afraid some places will hit a wall where the infrastructure will collapse, and only then will people truly appreciate how reliant on these complicated systems they have become.

After over 10 years of being tied to a pager, I think the future of system administration is for the younger folks who don't mind the inconveniences associated with the job. Once a family and a life outside of work develops, the stress of long hours, answering

phone calls and pages, and dropping everything to run into work stops being interesting, and starts becoming a real drain.

It's not really the job (the position itself) that I feel the employer has a low value for, but the employee. I work with some very intelligent and qualified people, but our jobs seems to be getting whittled down only re-imaging computers. Considering our skills, it's discouraging and insulting.

I am treated very well at work while others are treated badly.

Vendor/product choice is moving up the management chain (usually chosen by golf buddy, neighbor) so we're left supporting crap that doesn't work

If computers need to be "administered", system administration is light-years behind where it should be. System administration is a thankless job.

Sadly, most companies I have worked for see system administration as a detriment to the bottom line, and treat it accordingly. There's a shortage of competent managers that can run a sysadmin department, so the sysadmins mostly get shuffled off to whomever plays the least amount of politics. It's because of this that I'm disillusioned about system administration in general, and wish to get out of it.

I think system administration is getting dumber, as a profession, over all. there is a huge push here to go to admin tools that don't require any knowledge of what's going on behind the scenes. I hate this and it bores the crap out of me. That's why I'm bailing.

As a systems administrator I find in general it's hard to get away from being thought as being responsible for anything electronic. I would like to be able to get on with my work & administer unix servers not crawling under someone desk installing power bars or fixing the boss's outlook because he installed zone alarm. Adequate staff should be hired to handle desktop support issues.

Employers need to hire smarter, not just based on Certifications alone. MCSE = Must Call Someone Else (or so I have seen in the few years I've been working)

This is the most disturbing comment of the bunch:

Open Source Software is eroding the desirability and marketability of traditional Unix sysadmins. Employers are increasingly more reluctant to pay high salaries to manage what they see as a "free" software. As more high end Unix installations (enterprise class servers) are replaced by racks of whitebox Linux servers, companies are looking for cheaper manpower to manage them.

Advice

I think skilled people will always be needed in system administration. There are more computer/network systems than ever, and they are getting more, not less, complicated. Security is very important, as are expanding networks. These are not the sort of things that can be outsourced or handled by inexperienced people.

Working overtime for the same pay lessens your worth. Don't do it! Being a salaried employee isn't an open ticket for your employer to get more work done at the cost of your time.

All the good ones seem to be employed, or leaving the field. All we can find to hire are "ecpi grads" who were making martinis six months ago and left their "dead end job" to be a dead end themselves.

If I could do it all over again, it wouldn't be in IS/IT.

As system administrator you need an organization which helps to keep up to date or the management will eat you up and spit you out.

It is a bad field to be in if you do not have the business skills to back up the technical skills.

System Administration is a dying career.

Business technology now requires sysadmins who can make executive decisions based on knowledgeable business practices. Sysadmins that don't follow this route will go the way of the dinosaur or get paid $10 an hour.

Systems Administration is a great profession, but needs to be better recognized and understood by IT managers in general.

I have friends who ask how they can get into my industry. I tell them not to bother as it's readily apparent where the outsourcing trend is heading.

Most folks at our organization (which wasn't hit as badly as many during this recession) are looking at other career paths.

I would not recommend others to enter this profession.

System administration does not feel like a lifetime career. It feels like a stopover on the way either to management (IT management, directorship, CTO) or to a more technical job (DBA / programmer / network infrastructure specialty).

System Administration is a very sensitive and more important to the organization. Specialization in administration in a must. Learning curve compared to others is very less.

As an industry, we need to clear up the "old school thinking" and make a concerted effort to understand the businesses we work for − try to align strategies, to use technology to best make the business work, etc. ... but most of all, we need to educate the business about what we do, how we do it and why, and to earn mutual trust and respect so they direct us in what they want achieved, and let us decide how to do it.

Future

The future of commercial system administration is heading toward a more automated process in larger organizations where more systems are controlled by fewer admins. This does not translate to less SAs in those organizations, but translates to more SAs and even more machines (at a higher machine to SA ratio). The human position of SA is becoming more vital to the daily functioning of our society, and this is not just in the areas of business and commerce. In order to collect, track, navigate, manipulate, and correlate data today, machines are required − usually due to either the volume or complexity of data or a combination of the two. Larger organizations in the short term (possibly in the long term), such as my primary employer, will value SA positions less as management perceives these functions as something replaceable by an automated process, while not realizing that someone must still maintain and control these automated processes.

"System administration" is becoming too general a label to apply to the organic, adapting field.

Administrators will need to become generalists even more in the future. SAGE should recognize this. Businesses are starting to realize that every aspect of IT must interact with each other.

Future... an ever increasing push to outsource everything to India or China, even for desktops located in Europe.

Administration is going to get fiercely competitive as more jobs vanish or become consolidated.

I think it is becoming increasingly more difficult to find proper compensation due to the level of skills now attained. When one is a skilled architect as well as a pro in high availability, disaster recovery, SUN, HPUX, AIX, LINUX, SCO and network integration and security. It is very hard to get a job that pays well. Every company seems to want to pay nothing and expects you to train others and turn over all intellectual property for free. Not sure of the future, but Unix Administration is getting more frustrating when dealing with corporations.

I believe telecommuting will become more widely practiced over the next few years. Companies will no longer maintain office environments for their administration staff but rather, employ cheap hourly labor to handle issues that require manual intervention and pay for an employee's home broadband connection as an alternative.

Over time, I look for the term "system administrator" to become more differentiated across industry segments and companies, because I expect system administration tasks to become less distinct and more embedded into the business of the company and industry segment. I believe that as technology becomes ever more commoditized, sysadmins will spend less time on technology-specific tasks and more on business-specific ones.

The future still looks pretty bright for unix geeks. Lots of my windoze geek friends are looking for work...

I am hoping that system administration returns to being a job that is wanted because of a base desire to be, well, a computer geek, rather than a way to make lots of money. Too many competent people are out of work, while cheap "oh, I just passed this cert" people [mess] up the internet.

Understaffing and lack of affordable education opportunities (Train animals. Educate people.) are problematic. The larger problems resulting from the globalization of the computing environment are an opportunity for USENIX and SAGE (and other professional organizations) to guide the mitigation of the global anarchy that currently exists.

System (and especially cluster) administration is as much of a job which requires people management as technology and budget management. If this is not the case, then it can be covered purely by an SLA, and hence it is out-sourcable.

As much as I hate to say it, we need to have some sort of union to help protect us from companies with idiots for managers.

System administrators need to unite and combat bad working conditions, unionization might be a good idea. Corporate America is making quite a mess of the tech sector.

I think systems administrators are coming under increasing pressure regarding privacy and security of data, to the point where many will prefer to become full time programmers to avoid a looming increase in liability issues.

I would hate to see IT outsourced to other countries. IT is 80% about communication & understanding & assumptions. Outsourcing would make this worse.

I would like to see the following become less of an issue because it "just works": Compatibility, adding new programs without conflict, a greater granularity of control over UI permissions and more 'Permission and configuration templates' to create workstations and servers that fit a particular general need, e.g., "Education," "Office," "Home," "Field," "Portable." I want to see more generic, integrated programs and utilities, where compatibility is no longer an issue. ... I want to see PC hardware act more like Apple

Mac's Plug-and-Play philosophy in all aspects, not just hardware. I want to see a generic calendar protocol that allows you to subscribe to a group's events, e.g., "I want to signup the calender that I use (Palm) with my kid's school calender." A URL, a username & password later, it is done and stays in sync.

I'm looking forward to integrating tech and psych − I believe sysadmins need to move focus beyond the tech and into master levels of communication with themselves and others.

Outsourcing will either destroy our profession in the US (by moving it all offshore) or will be a huge boon to it (when upper management finally figures out offshore workers bring more problems to the table than they solve). The only question, in my opinion, is how many people will be out of work before upper managers figure out the real nature of the outsourcing problem. Or if they will care (as opposed to simply abandoning ship and moving themselves to a new company, which is what they generally seem to do when they've ruined the one they are presently with).

Everyone sees the world through their own experiences, and that's abundantly clear in this set of responses.

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).

About SAGE

SAGE is the technical and professional organization for the entire gamut of computer administrators. With thousands of members and an international membership base, SAGE's goal is to advance the profession of system administration. SAGE distributes a light yet densely packed weekly e-mail newsletter that's all meat and no fat (see http://sageweb.sage.org/newsletter.html).

See SAGE's website for discussion forums, news, and information for the entire administration community. SAGE is a special technical group of USENIX.

Unemployment Survey

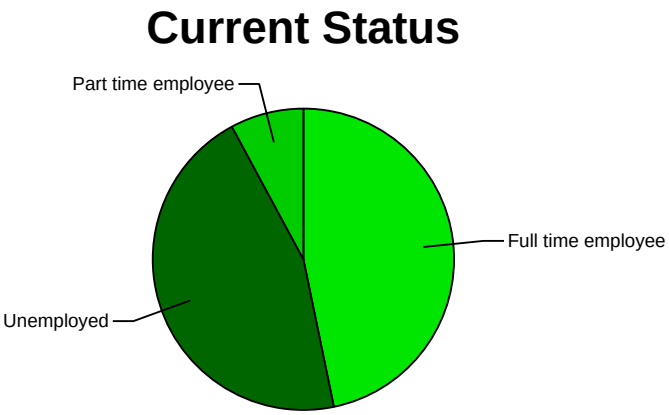
Introduction

Those respondents who were employed for less than 26 weeks were asked to answer a different set of questions that comprise the first ''SAGE Unemployment Survey''.

A total of 218 respondents submitted valid sets of responses. This is but 5.1% of total respondents. One might conclude that only 5% of admins are having serious unemployment problems, but odds seem more likely that other unemployed admins simply did not participate in the survey.

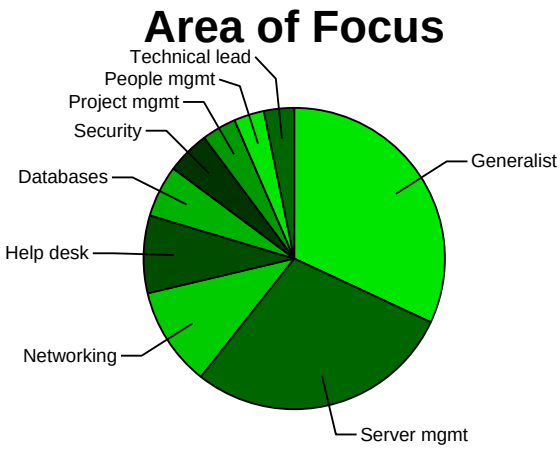
Did They Regain Employment?

As of the time they completed the survey, 46.8% of the group had regained full-time employment while an additional 7.8% had found part-time employment; 45.4% remained unemployed.



Focus

Respondents were asked about their primary admin focus. Slightly more generalists and technical leads seem to be unemployed than the chart of the employed population. Slightly fewer technical leads are unemployed.



Geography

As with the rest of the survey, over 80% of respondents are in the USA.

Sysadmins Around the World

Country	% Resp.	Country	% Resp.	Country	% Resp.
United States	82.4%	New Zealand	[2]	Greece	[1]
Canada	5.6%	Afghanistan	[1]	Hungary	[1]
United Kingdom	2.8%	Angola	[1]	Italy	[1]
Australia	1.9%	Belgium	[1]	Norway	[1]
Ireland	1.4%	France	[1]		
Israel	[2]	France, Metro	[1]		

Four cities accounted for almost 50% of the unemployed respondents.

Metropolitan Locations

Where	% Resp.	Where	% Resp.
San Fran./San Jose/Silicon Valley, CA	20.0%	Houston, TX Metro	4.3%
New York Metro	11.3%	Austin, TX Metro	3.5%
Seattle/Redmond, WA Metros	10.4%	Atlanta, GA Metro	2.6%
Boston, MA, Metro	8.7%	Philadelphia, PA, Metro	1.7%
Toronto, ON, Metro	6.1%	San Diego, CA, Metro	1.7%
Dallas, TX Metro	5.2%	Research Triangle, NC	[1]
Chicago, IL Metro	5.2%	Montreal, QC, Metro	[1]
Los Angeles/Orange	5.2%	Ottawa, ON, Metro	[1]
Washington, DC, Metro	5.2%	Sydney, Australia Metro	[1]
Denver, CO Metro	4.3%	Vancouver, BC, Metro	[1]

Education

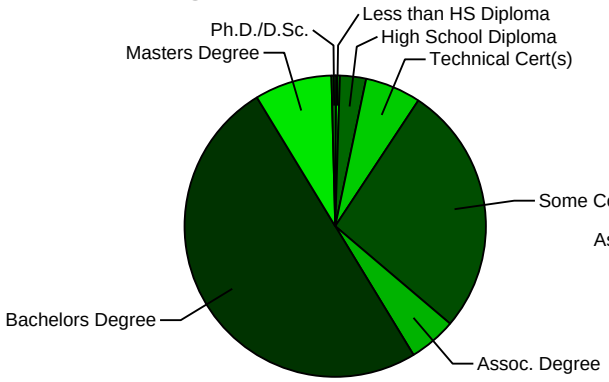
These respondents' learning techniques are almost indistinguishable from the employed group. The main difference is that they have had less training at conferences. Of course, this might also mean that they have less ''peer networking'' and contacts to find a new job.

How Admins Learn

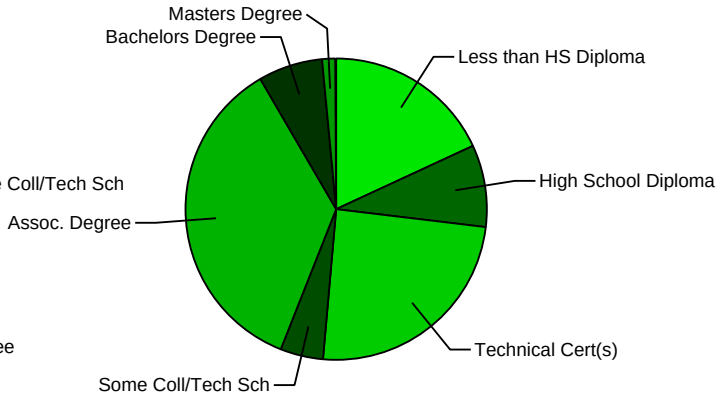
Learning Methods	Not at all	A bit	Somewhat	A lot
Taught myself (textbooks, web, practice, etc.)	3.2%	1.4%	10.2%	85.2%
On the job	1.9%	1.9%	11.6%	84.7%
Mentor of any kind	29.2%	19.4%	34.3%	17.1%
University/college education (CS/IS/IT degree program)	40.7%	19.9%	24.5%	14.8%
Vendor-specific training courses	52.8%	25.9%	14.8%	6.5%
Certification program courses	56.5%	20.4%	17.6%	5.6%
Non-degree tech school, college, or university courses	77.3%	9.7%	8.3%	4.6%
Conferences/commercial training	54.6%	25.5%	16.7%	3.2%
Military	93.5%	1.4%	2.8%	2.3%
Other	98.6%	0.0%	0.5%	0.9%

The unemployed respondents have almost identical educational backgrounds to those who are employed. The pie-charts are virtually identical.

Highest Education

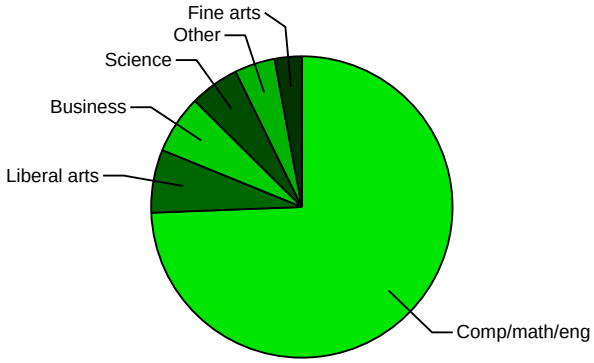


Highest Relevant Education



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

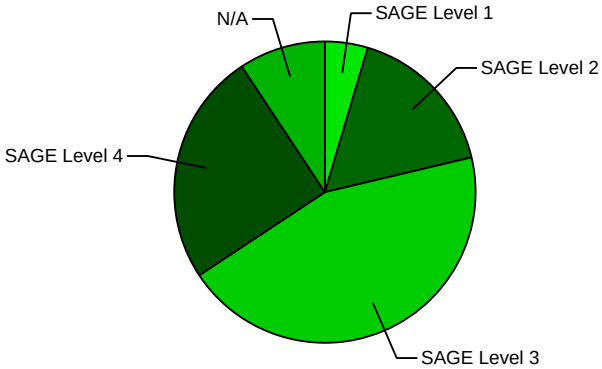
Post-High-School Subjects



SAGE Level

The vast majority of the unemployed respondents were SAGE levels 3 and 4.

SAGE Level



Industries

Respondents' industries diverged widely from those of the 'employed' part of the survey. Full one-third of them checked 'IT' categories vs. 10% of the other group. Similarly, Financial Services appeared at double the rate of the other group; Telecomm at 1.5x.

Industries of the Unemployed

Type	% Resp.	Type	% Resp.
IT: Software Development	9.3%	VAR	[2]
IT: Consulting	8.8%	Advertising, Public Relations, Communication, or Marketing	[2]
IT: Other	8.3%	Automotive	[2]
IT: ISP/ASP	6.5%	IT: Security	[2]
Education - College or University	6.5%	Education - Commercial, training, etc.	[2]
Manufacturing	5.1%	Engineering	[2]
Telecommunications	4.6%	Publishing	[2]
Other, please specify briefly	4.2%	Government - Non-Military	[1]
Computer hardware/semiconductor	4.2%	Travel/Recreation	[1]
Consulting and Business Services	3.7%	Hospitality	[1]
Financial services (all kinds)	3.7%	Human resources/human capital/recruiter	[1]
Government - Contracting	3.7%	Insurance/risk management	[1]
Health Care, Medicine	3.2%	Construction	[1]
IT: Web development/webmaster	3.2%	Legal	[1]
Retail	2.8%	Library	[1]
Entertainment	1.9%	Energy/Oil & Gas	[1]
Food	1.9%	Military	[1]
Services (other)	1.4%	Mining or Energy Production (oil, coal, etc.)	[1]
Transportation	1.4%	Not-for-profit	[1]
IT: Databases/data mining	1.4%	Environmental Services	[1]
Defense	1.4%	Real Estate	[1]

Technical Associations

Unemployed respondents joined technical associations at a slightly lower rate than their counterparts and generally felt they were less helpful.

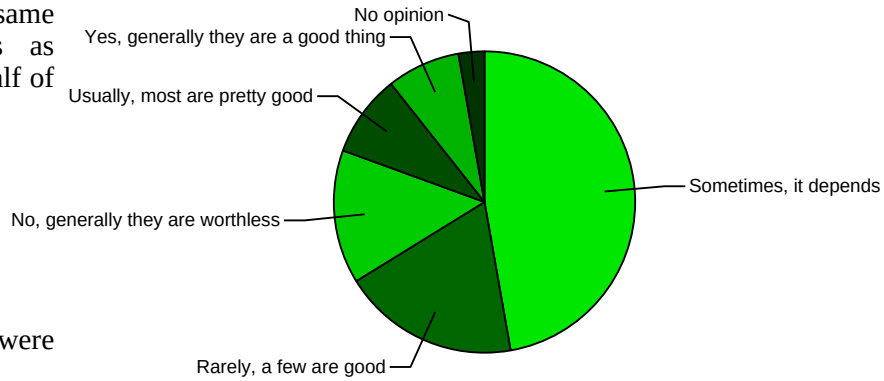
Technical Assns. and Rated Utility

Organization	Do not belong	Belong	Belong & helpful	Belong & very helpful
USENIX	84.7%	5.6%	5.6%	4.2%
SAGE	80.6%	5.6%	10.2%	3.7%
ACM	91.7%	3.7%	3.2%	1.4%
SANS	96.3%	0.0%	2.3%	1.4%
IEEE	94.0%	1.9%	3.7%	0.5%

Certifications

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

Value of Certifications



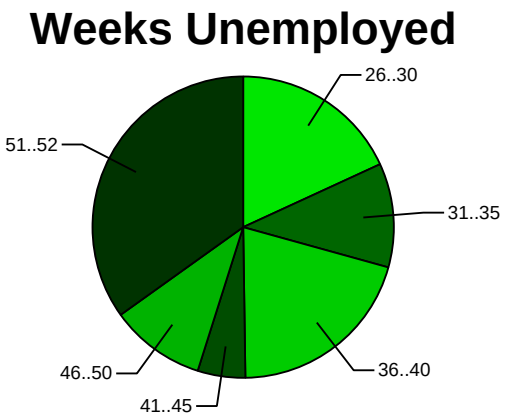
Generally, certification levels were similar.

Certifications Held

Certification	% Resp.	Certification	% Resp.	Certification	% Resp.
Bachelors Degree (any relevant)	18.1	Oracle/OCP (any)	2.8	EMC (any)	[2]
COMPTIA A+	10.6	COMPTIA Linux+	2.3	Cisco CCIE	[2]
Microsoft MCS*	8.8	Sun/Solaris SCN*	2.3	Citrix CCA	[2]
Cisco CCNA	8.8	COMPTIA Security+	2.3	SAIR certified Linux administrator	[2]
Microsoft MCP/MCP+i	6.9	LPI (any)	2.3	Learning Tree (any)	[2]
Brainbench (any)	6.0	Novell CNE	1.9	SCO (any)	[1]
Sun/Solaris SCSA	6.0	IBM (any)	1.9	COMPTIA I-Net+	[1]
Novell CNA	5.1	Cisco CCDA	1.4	CISA (ISACA)	[1]
COMPTIA N+	4.2	Cisco CCNP	1.4	Compaq	[1]
Red Hat (any)	3.2	(ICS)2 CISSP	1.4	Checkpoint CCSE	[1]
AIX (any)	3.2	HP (any)	[2]	CSage	[1]
Apple (any)	2.8	Cisco CCDP	[2]	Checkpoint CCSA	[1]

Unemployment Duration

Almost half of the respondents were out of work for 45 weeks or more.



Unemployment Hardships

Respondents were asked what hardships they might endure in order to get a job. About 1/7th would not change their commute; a few more would not be interested in on-call work. While 20% are not willing to take a 10% pay cut, 25% would work part time. 45% wished not to relocate.

What Admins Will Do to Gain Employment

Actions	No	Yes
Are/were you willing to extend your commute to get a job?	14.8%	85.2%
Are/were you willing to take a job requiring that you be on-call outside work hours?	18.1%	81.9%
Are/were you willing to take a 10% paycut (relative to area) to get a job?	20.8%	79.2%
Are/were you willing to take a part-time job?	28.7%	71.3%
Are/were you willing to take a 25% paycut (relative to area) to get a job?	39.8%	60.2%
Are you employed now?	42.1%	57.9%
Are/were you willing to relocate to get a job?	44.9%	55.1%
Are/were you willing to take a 50% paycut (relative to area) to get a job?	75.0%	25.0%
Are/were you willing to take more than a 50% paycut (relative to area) to get a job?	85.6%	14.4%
Are you more of a people manager than an individual contributor?	88.4%	11.6%

Job Requirements

Respondents chose properties were essential in their new job.

Job Requirements					
Count	Requirement	Count	Requirement	Count	Requirement
39	Compensation	5	Good team	1	Proper authority
17	Anything	3	Integrity	1	Predictable hours
15	Proximity	3	Applicability to my skills	1	Job satisfaction
14	Challenge	2	Work from home	1	Independance
14	Benefits	2	Responsibility	1	Good company
10	Good management	2	Relaxed atmosphere	1	Good atmosphere
9	Stability	2	Leadership role	1	Good (subordinate) staff
8	Training	2	Independence	1	Good people
8	Proper technical environment	2	Impact	1	Friendly environment
7	Flexibility	1	Sales	1	Field of security
6	Good environment	1	Retirement plan	1	Enjoyable
5	Respect	1	Relevant		
5	Opportunity to advance	1	Quality of life		

Job Anti-Requirements

Respondents were asked what properties had to be avoided in their new job.

Job Anti-Requirements					
Count	Requirement	Count	Requirement	Count	Requirement
14	Bad work schedule	4	Illegal/unethical practices	1	Lack of seniority
12	Improper technical environment	3	Sales position	1	Lack of opportunity
11	Bad Compensation	2	Outsourcing in progress	1	High stress
11	Bad management	2	Lack of safety	1	Help desk work
10	Nothing	2	Bad work conditions	1	Drug testing
9	Travel/field work	2	Bad customer environment	1	Contract work
9	Proximity	1	Unrealistic responsibilities	1	Conservative environment
6	Lack of challenge	1	Security clearance req'd	1	Bureaucracy
5	Lack of proximity	1	One man show	1	Bad environment
5	Certain industries are unacceptable	1	No training	1	Anything that will adversely affect my family

Job Hunting Techniques

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

- 'window hunting'
- Job Fairs
- Cold calling
- door-to-door
- volunteering
- state unemployment agency
- school
- church network groups for unemployed
- Usenet newsgroups
- Started consultancy, developed product line
- ProMatch
- Mailing lists (jobs@freebsd.org; baylisa-jobs@baylisa.org)
- EDD/NOVA
- Craigslist

Job Finding Methodology

Means	% Resp.
Web	94.0
Personal networking	85.6
Recruiters	66.2
Newspaper	66.2
TV	8.3
Radio	7.9

Respondents spend a mean of 19.2 hours/week job-hunting, with a median of 15 hours/week.

Weekly Hours Job-Hunting