2003 Salary Survey

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The Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM) extends a heartfelt thank you to the 984 members who responded to the survey. This document, prepared by the Salary Research Committee of the APEGM, presents survey information on the compensation received by APEGM members (including EITs and GITs) employed in Manitoba. The information is based on data collected from a membership survey and reflects members' salaries as of December 31, 2002. This report provides information of salaries, education, benefits, and the workplace. This report is available at our website: www.apegm.mb.ca.

Membership Response
Invitations to complete the web-based survey were sent to 3217 APEGM members and EIT/GITs resident in Manitoba in April 2003. Responses were accepted until May 19. The reference date for the survey was December 31, 2002. Responses were received from 984 members for a response rate of 31%, compared to 24% in 2002, 24% in 2001, and 19% in 2000. Of the responses, 67% were Engineers, 5% were Geoscientists, and 28% were EIT/GITs. This year was the first year that APEGM used a web-based survey.

Salary
The primary purpose of the salary survey is to report base salary information as a function of job ratings. Jobs are rated using the APEGM Job Classification Rating Guide, which provides typical job ratings of 140 for a recent Engineering graduate, 320 for a Design Engineer, 480 for a Senior Design Engineer, and 715 for a Division Executive for a large corporation.

Exclusions
Although 984 members logged in to the survey, difficulties with the online format resulted in not all the questions being completed. As a result, the number of respondents used in each separate table and chart varies.

For base salary calculations, responses were excluded for several reasons. First, some surveys did not include a base salary, a graduation year, or the classification section. Second, 45 surveys were excluded from some calculations because the respondent was not a full-time or contract employee.

Third, statistical processes required the removal of outlier values for base salary calculations. The following equations were used to determine an upper cut off and a lower cut off point for base salary:

$$\text{Upper cut off of base salary} = \text{Upper Quartile} + 3 \bullet \text{Inter-Quartile Range}$$

$$\text{Lower cut off base salary} = \text{Lower Quartile} - 3 \bullet \text{Inter-Quartile Range}$$

$$\text{Inter-Quartile Range} = \text{Upper Quartile} - \text{Lower Quartile}$$

The upper cut off salary was determined to be $173,000. The lower cut off was negative in magnitude and thus did not apply. A total number of 6 respondents exceeded the upper cut off salary and were thus excluded from further base salary analyses. Additionally, 8 responses were excluded because their point totals were unreasonably high or low.

As a result, 756 responses were used for the base salary versus points, and 695 responses were used for base salary analyses versus year of graduation. The total numbers of responses are indicated in the base salary tables for other criteria.

Comparison with other provinces
Figure 2 provides a comparison of the 2002 APEGM salary data with the most recent salary data from British Columbia, Alberta, Saskatchewan, and Ontario. Caution should be exercised with comparisons due to the subjective manner in which equivalent points ranges were matched. Values from British Columbia were adjusted from the original values of total income reported in that province's salary survey report using the percentage difference of total income over base annual salary found in that same survey report.

Complete salary survey information for other provinces can be found at: www.apeg.bc.ca, www.apegga.com, www.apegs.sk.ca, and www.peo.on.ca.

Education
Of the respondents, 26% indicated that they had obtained a postgraduate degree. By membership category, this equates to 29% of Engineers, 52% of Geoscientists, and 15% of EIT/GITs.

Gender
Overall, 89% of respondents were male and 11% were female. Of the respondents who specified a graduation year, 62% of the males graduated after 1985, and 90% of the females graduated after 1985.

Workplace Information
The average official workweek was 38.6 h. The typical number of hours worked was 44.0 h. The average weeks of vacation reported was 3.6. The average respondent has been with their current employer for 8.9 years.

This year, 62% of respondents were from the private sector, compared to 65% last year. Of note, 28% of respondents reported being covered by a collective agreement, as compared with 17%, 22%, and 19% reported in the previous three surveys.

Comments
This year, 13% provided written comments on their APEGM Salary Survey, an increase from the 7% who left comments in the previous survey. In the comments, 26% commented on the survey format, 38% commented on the web format of the survey, 15% commented on their personal results, 2% commented on the activities of APEGM, 10% commented on the engineering profession, and 9% made general comments.

Comments in Detail

Survey Format – Positive

- Excellent work!
- Good to see a survey of this nature being done regularly. As an employer and an employee it is very useful to know what remuneration is relevant to attract the right person and with what levels of accountability and responsibility.
- Survey is well designed. It was comprehensible and went smoothly.
- I have noted several improvements to the format. Well done!
- The annual salary survey is an excellent baseline reference.
- Good survey. Quick and painless and I'm interested in the results as to where i fit in.
- The rating question are clear enough
- Very appropriate level of invasiveness and time required to complete the survey.

Survey Format – Changes

- In the Government type/Private sector question engineers working for Professional Bodies like APEGM have no 'correct' option.
- This survey is too rigid to be applicable to a wide range of people. All questions should have a "Not Applicable" or "Other" option.
- A better description of the questions (a-j) is needed.
- The point system descriptions to me continue to be oriented to the corporate/utility sphere such as Hydro. The description of the point levels should be broadened or further explained to allow for those of us who work in a non-corporate sphere (such as consulting university independents etc.) and do not necessarily have regularly assigned staff (such as various project teams where one may act as the prime project manager for a team of 40 for one project and as a consultant-designer on another). As these point ratings are used to rationalize salary levels it is important that one can accurately assess their experience/skill/responsibility relative to their peers to ensure that we are being adequately remunerated. Thank you.
- A lot of these questions do not apply to geologists working in field conditions or are applicable to the environment in which we work.
- Survey does not accommodate self-employed persons very well. I work a lot more hours than I bill.
- I object to the identification of male/female, as it is discriminatory.
- This survey does not work well for a person who is a one=person consulting operation.
- As in past years the classification system is really geared towards Engineers that are currently working in a "Engineering Discipline" or managing other Engineers. I (and I assume many others) no longer work in an Engineering discipline but Engineering played a significant role in achieving our current positions. Thanks
- The "hazard" section appears to relate to physical health hazards. In today's work environment some measure of job stress would be very relevant.
- As my work is directly related to enforcement of Regulations and assessing proposals and reports and managing review processes of them it was awkward and difficult for me to classify my roles in some of the options available.
- I don't think the survey is particularly applicable to retired engineers!
- APEGM PEO and others have been talking about raising the profile of engineers for several years now. It would be interesting to know from results of the survey if any of this "talk" has actually had

any positive tangible benefits in terms of increased salaries within the profession. I think not. Also how many employers actually use this survey to guide their salary decisions? Could we ask this in next year's survey? Thanks for your efforts

- I think you might want to add the availability of tools to work with as one criteria. In some engineering jobs the computer is under rated for the amount of calculation power required.
- I noticed that stress was not covered in the survey.
- These questions are too general to reflect my skill-set contribution and responsibilities. Therefore the compiled results are expected to be very general as well.
- The survey does not consider foreign employment while licensed in Manitoba.
- This survey and its questions are focused at traditional employee/employer roles and are difficult to respond to for self employed Engineers in contractual arrangements which vary depending on the particular contract.
- A few minutes my eye. Takes far too long. Must be a form designed by an engineer!
- More text allotment on job activities. Possible to choose more than one major/main job function as many are now multi-tasking.
- For a self-employed person some of the questions are not flexible enough to give a clear and unambiguous answer. I did the best that I could.
- Under benefits the available options are to indicate whether the employer or the employee covers the cost or if the item is a shared cost. In my environment some items are covered by my union rather than the employer so perhaps a option to indicate such could be made available for future years.
- I am happy to be included in your survey. The survey questionnaire has been much simplified compared to last year. It is useful to carry out this kind of salary survey once every year. This questionnaire is well designed for full time employees. I do not know if it addresses the working conditions of people who work as independent consultants.
- I understand that Classification Rating Guide can cover all situations. Perhaps you could provide more detailed or alternate explanations.

Web Format - Positive

- This online survey is a great idea! It is easy to use and readily available
- The web-based process is great!
- Love the web-based version of this survey - much easier!
- This format is much easier to deal with than previous years.
- This is a good way to perform this type of survey.
- This survey was rather quick and easy to complete. Thanks for making the change.
- Great way to do the survey!
- This is a great way to conduct this survey! Painless!
- Web Based format is quick and easy.
- On-line survey is an excellent choice. I may not have completed this if it were a paper survey as I would need to make a special trip to the mailbox (I am a home-based employee).
- No comments. I prefer this type of internet based survey.
- This was a great quick way to have the survey completed! I look forward to next year’s survey. I hope that this helps increase the number of participants compared to the last few years.
- I find this format easy efficient and user friendly. Good initiative.
- The web-based format is an excellent idea. Very user friendly.

- This is a huge improvement from the paper version in the past. Keep up the good work on the improvements!!
- The online survey is a terrific improvement over the mail-in version. This is the first time in 7 years that I completed one and likely will continue with this new approach.
- Enjoyed this method of submittal - very easy.
- This is a very user-friendly survey and much easier to deal with than a mailed out survey. I hope you continue this way.
- Well done. I love the new process.
- I am very pleased to see the APEGM Salary Survey on line and becoming instantly very high tech. It is much easier to use than the traditional format of old hard copy. Thank you for your good hard work.
- This email/internet survey is an excellent idea. It took me less than 5 minutes and then I just pushed a button versus visiting a mailbox.
- The on-line survey is a great idea. It's less cumbersome than the previous surveys yet still comprehensive. Not to mention saving paper and postage.
- Love this web format
- I like the electronic copy much better than paper.
- this is much faster and more convenient than paper.
- This was an efficient process. Thank you.

Web Format – Changes

- I THINK YOU HAVE ERRED ON THE QUESTION ABOUT EXPERIENCE? IT SAYS EDUCATION
- One of the questions referred to section C of the classification guide which is experience but the question itself was under the heading education. I answered the question based on experience.
- The question after education should read experience (and not education)
- It would have been nice to know there was 21 questions right at the start. I wasn't sure when this survey would end.
- I would like to be able to print my survey responses for future comparison with the survey results.
- Much easier and faster to fill out than a paper document. Well laid out - perhaps reformat the cells where numbers are to be entered - they are presently left aligned whereas it would look more correct when entering the information if it was right aligned. Thanks
- The Web based form was very easy to use. I did not receive questions on H. I. J. and K. sections of the classification and rating guide.
- I was interrupted and couldn't finish the survey. When I returned I couldn't access the unfinished questions; not even to start over from the beginning. Not a good system in that respect. Let me know if you fix it.
- I would like to view survey results on-line. Live updates would also be interesting.
- It would be nice to have a copy of what we filled out for our records.
- I find the on line survey easier to complete that the printed form and would encourage the use of more electronic communication.
- Easy to follow format. You lost one point for having to "double click" each submission which was a tad annoying. Great survey; I'd give it a 9 out of 10!
- The survey doesn't allow any backtracking i.e. I missed entering question 20A (for which I wanted to enter 150 pts) and there is no opportunity to go back and enter it - un-entered items don't show up

in the review list. This will probably skew the results in many submissions. Also when I logged in the second time I was prompted to enter question 20K and in the review saw that it was entered twice - again no way of changing this.

- have a "back" button so you can go back and change mistakes or check answers.
- Need a "Back" button on this survey
- At this point in the survey I don't know whether it's possible to print a copy for my records. If I can the please ignore this! If I can't then it should be possible to do so. Thanks.
- Put deadline in the email header
- The option to go back to the preceding step would be useful. Also the option to print a summary of all responses would be helpful (as a reminder for next year).Overall I really like the new web-based survey.
- It is quite awkward to answer question 20 well without hardcopy to review and correct - but I'm not keen to use up my paper to do so.
- In two of the survey questions I hit the BACK button to review the previous question/answer. When hitting the SUBMIT button then the actual question I was about to answer was skipped. These are still not answered as I do not yet know how to return to them.
- Re-work the salary survey to allow the user to go back one screen and change the last answer...Have an indication as to how many questions are remaining on the survey at the upper right hand corner.
- There does no appear to be a way to go back and review/change previous answers if you are interrupted in the middle of a question. Some questions are then left partially answered.

Personal Results

- While trying to figure out question 20 (using the guides) my internet explorer crashed and it seems to think I submitted nothing. I hope this question wasn't important!
- I am an unemployed EIT and I have a Diploma in Instrumentation from RRC as well as a BSc EE. You did not leave me room to say that I had recent technologist's training. I am also finding it a frustration experience to find a job. You need to disregard the part of my comments about jobs - wages holidays etc.
- I have worked in many industries and in a variety of positions; my response is not necessarily limited to any one position. At times travel was considerable and included an overseas posting for several years. Direct supervision never exceeded 10 persons but some of those had a small department or crew in their charge.
- % change in salary is ~4.8% not the 7.8% submitted.
- I have 7 staff but administer contracts which employ addition staff of up to 100 people. what should i put for number of staff?
- I had some difficulty in deciding the weight to apply to work in a planning function as there is not much direct supervision involved but there is considerable responsibility in making the best technical and economic decisions.
- The survey did not take my points for Question a & b They should be 20a
- The survey did not take my points for Question a & b They should be 20a 150 pts 20b 80 pts
- When I went back to a question it later advanced me beyond questions I hadn't answered and would not let me return to the unanswered questions. Therefore I could not answer questions b to f.
- 1. I get time off for overtime but limited to 2/12 hours a week. 2. Basic life insurance paid by Employer; supplemental paid on shared and then Employee only3. I will be laid off in a couple of months along with others. This reduces my yearly Salary.

- I'm not sure if I answered question 1 correctly I have a degree in electrical engineering. (BSc EE) I may have clicked on Diploma.
- I am an independent consultant. I don't remember being asked my yearly net or gross just the hourly wage. If you need either of these figures please e-mail.
- I was not able to go back to the previous screen. My answers that were missed in the last section are b) bachelor's degree and c) 113. I think others may be missing as well but could not tell.
- My salary is $110000 per year. I do not think I filled in the box correct.
- The review section at the end of the survey did not have a response for 20 A - Duties. It should be 90 points.
- My salary decreased last year because of a change in job classification. The question that dealt with change in salary would not let me put in a negative number. So I put in 95% meaning I am getting paid 95%of my last years salary.
- My position was eliminated in April 2003 so all of my employment answers reflect prior to that date. Thanks
- I started a company in 2002 and as a result my income dropped drastically for that tax year. I was previously earning approx $100000 per annum and last year my employment income was $140 resulting in a 700% change downward. I received my B.Sc. in engineering in 1987 but I did not pursue my P.Eng. designation until 2000 at which time the academic review committee deemed that I was not academically qualified which is why I have a degree in 1987 but academic qualification (again) in 2001. My employment and education status causes many of the questions to fall out of context vs. someone not self employed and therefore you may want to omit my survey response from the aggregate to obtain more meaningful results.
- I was personally laid off July 2002. My answers to the questions are based on my employment during the 2002 work year.

APEGM

- Try not to be so bureaucratic rigid petty in the operation of the EIT program.
- The EIT program currently has gaps in that it does not make accommodations for personnel who have gained significant experience outside of the field of "engineering" as defined by the bylaws of the association. Many businesses do not have professional engineers on staff as they do not require them in their operations however the tasks that people trained in engineering disciplines are able to perform for these companies are very much engineering related. Process and production engineering as well as operational leadership software design and development. These are all roles that are performed by engineering trained personnel that due to the absence of a professional engineer are not recognized by the association as valid experience. In my mind the association weakens their position by a limiting view on experience.
- Can the association be doing more to promote the "TRUE VALUE" of engineers? We are trained as first class Problem Solvers and Thinkers who bring much Value to organizations so let's promote it!

Engineering Profession

- Feel that intermediate engineers are under paid. An individual with a two year technologist degree is paid at least if not more than an E.I.T. or recently appointed P.Eng. upon graduation without the 4 year educational investment of an engineering student.
- If I could go back in time I would choose a different profession. Engineering is unappreciated work typically difficult and under paid when compared to other professions.

- I am concerned with the disparity in wages between myself and others who have moved to Alberta & Ontario. We need to improve the job opportunities and wages in Manitoba in order to keep the best & brightest young engineers here. The majority of the people I graduated with moved away for wages 20-30% higher. Even with cost of living adjustments taken into account Manitoba engineering jobs still should be more on par with the rest of the country.
- I believe strongly that I am underpaid.
- Engineers should get paid more. My employer uses APEGM site to base our salary.
- I would like to see the salary survey brought to the attention of employers. I would like to see an effort made to decrease differences in salaries between various employers.
- I never expected to have such a minimal remuneration even fresh from university. I do not feel valued. I do not expect to stay where I work for long.
- Recommend standardized pay structure for companies/organizations to maintain/retain employees instead of the high turn around type employment which seems more common now. There is a declining "image" of Engineers relative to other professional designations which seem to be more progressive in terms of salaries and public image. Title of "Engineer" seems to be used quite loosely and is resulting in a generic type professional title which actually requires a high level of education and professional development to stay current.
- Generally engineers are under paid when one looks at the requirements to become a professional. There is four to five years of school with 4 years of further training with obscure requirements (professional development and service requirements). All this to earn less then most tradesmen (carpenter plumber etc.). I will strongly recommend for my children to choose a different profession (pharmacy medicine commerce etc.)
- Survey does not seem to reflect my non-supervisory career path; not surprising: my employer does not recognize the value of what I know and do either. An engineer who invents and solves technical problems for the company is worth far more than one who fills out time cards and budgets for a small department. Ifin ya ain't running the place ya ain't worth nothin.
- A legislated pay-scale needs to be explored otherwise we'll continue to be underpaid as a collective profession (relative to doctors lawyers dentists etc.)
- Engineers are paid less in relation to other professions. An el-crapo junior lawyer charges as much as a senior engineer/project manager ($100/hr)! Something should be done to increase the Engineer's pay to make it more in line with other professions. Maybe the consultants should get together to establish a more equitable billing system and stick to it when it comes time to submit proposals!

General

- Manitoba needs to be more competitive salary-wise with the rest of the world in order for professionals to want to stay here. (It isn't the climate that keeps people here.)
- I hope these results don't skew things. i am one of the owners and I get paid out of what is left.
- Not applicable
- No comments (8)

Table 1: Mean Base Salary Equations (vs. APEGM Points)

Year	Base Salary
1995	96P + 11800
1996	84P + 15700
1998	87P + 17000
1999	93P + 14600
2000	89P + 18200
2001	84P + 20613
2002	86P + 22226
2003	85P + 24123

Table 2: Salary at Different APEGM Point Levels (Based on Mean Base Salary Equations)

Year	Mean Salary at 200 APEGM Points	% Increase	Mean Salary at 400 APEGM Points	% Increase	Mean Salary at 600 APEGM Points	% Increase	Cost of Living % Increase
2003	41,123	4.3	58,123	2.6	75,123	1.8	3.7**
2002	39,426	5.3	56,626	4.5	73,826	4.0	3.2
2001	37,413	3.9	54,213	0.8	71,013	-0.8	2.5
2000	36,000	8.4	53,800	3.9	71,600	1.7	2.3
1999	33,200	-3.5	51,800	0.0	70,400	1.7	1.4
1998	34,400	5.8	51,800	5.1	69,200	4.7	1.2
1996	32,500	4.8	49,300	-1.8	66,100	-4.8	1.9
1995	31,000	-3.1	50,200	2.9	69,400	5.8	3.0

** Based on Statistics Canada Consumer Price Index for December, 2002

Table 3: Industry Sector Statistics

Industry Sector	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
Aerospace	60	7	62,041	45,750	62,000	70,985	65,076	54	7	470
Agricultural/Equipment	20	2	62,499	51,500	58,250	70,500	65,571	19	3	523
Agriculture/Food	17	2	68,970	52,000	67,000	79,000	74,394	16	2	499
Communications	36	4	73,476	65,398	72,500	78,250	76,042	36	5	524
Computer/Software	8	1	70,107	60,890	69,500	80,175	72,482	8	1	565
Construction	35	4	67,474	49,000	65,000	79,500	73,312	35	5	557
Consulting	145	18	62,724	43,000	60,000	77,000	68,071	132	18	515
Electronics	23	3	63,196	54,000	62,500	70,500	63,993	22	3	440
Health Care	5	1	66,005	53,000	64,347	79,676	67,205	5	1	579
Heavy Electrical	10	1	67,048	51,750	67,000	76,008	73,918	10	1	497
Manufacturing	72	9	61,141	42,000	52,470	74,582	66,296	63	8	471
Mechanical Equipment	13	2	48,302	40,000	45,500	54,330	50,633	13	2	342
Metals - Primary	13	2	74,531	57,000	69,000	96,000	79,628	11	1	456
Mineral Exploration	13	2	68,521	62,379	69,000	75,000	69,521	12	2	570
Mining	22	3	76,016	58,250	69,762	89,793	79,434	18	2	513
Other	90	11	67,740	56,266	66,346	80,985	77,092	75	10	549
Pharmaceutical	8	1	48,275	42,550	44,000	46,250	52,300	8	1	325
Research and Development	30	4	71,404	60,000	72,500	84,275	72,344	24	3	518
Transportation	62	8	64,256	49,468	62,500	75,857	67,881	60	8	519
Utilities	141	17	73,158	54,700	75,556	85,000	75,265	128	17	474
Total	823							749		

Table 3a: Industry Sector Statistics (Engineers)

Industry Sector	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
Aerospace	39	7	70,571	62,000	66,228	78,000	74,893	36	7	542
Agricultural/Equipment	14	2	66,784	56,118	61,750	69,375	70,459	13	3	590
Agriculture/Food	14	2	73,249	63,979	72,564	79,750	79,835	13	3	536
Communications	29	5	78,086	72,218	74,596	80,000	81,164	29	6	549
Computer/Software	7	1	69,408	60,579	64,000	80,350	72,123	7	1	586
Construction	29	5	70,789	56,500	65,230	80,963	76,656	29	6	600
Consulting	103	18	70,487	54,500	70,000	84,500	77,403	92	18	603
Electronics	11	2	75,799	70,000	71,000	79,000	76,716	10	2	601
Heavy Electrical	9	2	68,497	51,000	68,000	78,000	76,131	9	2	527
Manufacturing	38	7	76,342	58,950	71,400	88,300	84,650	32	6	610
Metals - Primary	9	2	84,500	69,000	92,000	100,320	91,474	7	1	567
Mining	14	2	85,084	68,553	78,850	100,000	90,198	11	2	600
Other	77	14	72,192	59,500	68,760	82,576	81,938	68	13	592
Research and Development	15	3	80,347	65,750	78,500	86,100	81,014	11	2	605
Transportation	49	9	70,179	60,892	67,000	79,290	74,105	49	10	578
Utilities	106	19	81,532	72,122	79,569	90,750	83,788	96	19	541
Total	563							512		

Table 3b: Industry Sector Statistics (Geoscientists)

Industry Sector	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
Consulting	6	16	63,077	50,000	63,500	79,250	65,382	6	18	551
Mineral Exploration	11	30	69,307	63,690	69,000	73,500	70,489	10	29	582
Mining	5	14	65,235	56,000	56,786	67,000	65,235	4	12	465
Other	7	19	74,357	62,500	83,000	85,250	74,829	7	21	608
Research and Development	8	22	80,225	71,028	81,500	86,550	81,563	7	21	542
Total	37							34		

Table 3c: Industry Sector Statistics (EIT/GITs)

Industry Sector	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
Aerospace	21	9	46,199	40,000	42,000	49,900	46,845	18	9	326
Agricultural/Equipment	6	3	52,500	40,000	44,750	66,375	54,167	6	3	376
Communications	7	3	54,377	50,250	52,000	60,050	54,820	7	3	419
Construction	6	3	51,451	46,852	47,426	49,500	57,148	6	3	349
Consulting	36	16	40,454	35,875	39,750	42,250	41,822	34	17	271
Electronics	12	5	51,644	44,000	54,000	55,825	52,331	12	6	305
Manufacturing	34	15	44,152	39,035	42,500	49,125	45,783	31	15	327
Mechanical Equipment	9	4	43,770	40,000	40,600	48,000	46,748	9	4	306
Other	32	14	47,753	41,893	46,650	52,975	48,945	26	13	275
Pharmaceutical	6	3	44,533	43,000	44,000	45,000	49,100	6	3	254
Research and Development	7	3	42,157	36,950	39,000	43,600	43,229	6	3	329
Transportation	13	6	41,931	37,000	41,500	44,000	44,424	11	5	255
Utilities	34	15	47,436	43,591	46,500	51,531	49,086	31	15	271
Total	223							203		

Table 4: Job Function Statistics

Job Function	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
Administrative Services	14	2	80,813	66,534	84,000	94,500	126,456	14	2	662
Computer Services	7	1	60,414	55,000	62,500	67,200	65,139	7	1	439
Consulting	99	12	59,514	43,350	56,000	72,000	63,297	92	12	485
Design	157	19	56,553	42,000	53,000	70,000	58,482	147	19	400
Maintenance/Tech. Support	49	6	62,787	49,500	62,600	75,000	65,523	42	6	408
Management	175	21	85,784	72,249	83,000	100,000	91,567	158	21	704
Marketing/Sales	27	3	69,241	56,800	72,218	81,886	74,725	25	3	488
Mineral Exploration	9	1	64,198	56,000	60,000	72,000	64,532	8	1	501
Other	42	5	64,655	54,083	65,500	75,711	68,641	36	5	432
Planning	26	3	63,914	53,194	62,382	75,649	64,849	23	3	429
Production	33	4	54,233	44,500	54,000	62,000	55,189	30	4	364
Project Management	110	13	65,024	51,250	63,394	78,375	69,387	102	13	481
Quality Assurance	12	1	51,139	40,875	50,531	59,250	52,931	10	1	421
Research and Development	38	5	59,635	39,155	54,500	79,250	60,356	33	4	420
Software Development	12	1	60,119	52,625	58,850	66,000	61,952	12	2	416
Teaching	19	2	73,077	58,397	64,000	84,084	73,182	17	2	559
Total	829							756		

Table 5: Year of Graduation Statistics

Year of Graduation	Salary							Points		
			Based on Base Salary							
	# Reported	%	Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	# Reported	%	Mean Points
1960-1964	8	1	94,124	78,000	101,150	104,423	95,999	8	1	668
1965-1969	20	3	82,141	68,028	83,500	100,842	94,876	18	3	748
1970-1974	54	8	79,980	66,914	77,000	89,500	83,390	47	8	670
1975-1979	55	8	81,621	72,500	80,600	87,924	84,963	48	8	670
1980-1984	76	11	79,470	69,625	79,119	87,400	84,664	68	11	599
1985-1989	104	15	73,849	64,376	72,000	80,525	76,367	97	16	558
1990	18	3	75,882	64,750	72,807	79,909	83,821	16	3	549
1991	13	2	64,288	56,500	67,000	72,800	66,961	12	2	481
1992	29	4	72,063	62,000	70,000	73,000	74,125	26	4	515
1993	23	3	65,719	54,717	60,892	73,500	68,741	16	3	526
1994	20	3	61,602	59,000	62,350	66,375	63,710	20	3	475
1995	23	3	55,704	49,500	52,500	60,865	56,162	22	4	368
1996	32	5	51,089	42,750	49,500	59,250	53,246	29	5	364
1997	29	4	51,870	44,500	50,000	60,000	53,822	26	4	342
1998	34	5	50,197	43,250	50,000	56,322	51,622	33	5	355
1999	36	5	47,165	40,750	45,250	54,343	49,652	33	5	296
2000	39	6	46,754	40,750	46,500	50,063	48,102	34	5	310
2001	42	6	40,359	36,243	40,000	44,945	41,702	35	6	295
2002-2003	40	6	40,007	35,375	40,000	44,000	41,304	33	5	242
Total	695							621		

Table 5a: Year of Graduation Statistics (Engineers)

Year of Graduation	Salary # Reported	%	Based on Base Salary Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	Points # Reported	%	Mean Points
1960-1964	8	2	94,124	78,000	101,150	104,423	95,999	8	2	668
1965-1969	18	4	83,817	73,366	84,500	102,281	97,579	16	4	754
1970-1974	49	11	82,299	67,372	77,500	95,000	86,030	42	10	682
1975-1979	48	11	82,391	72,750	80,782	87,886	86,220	43	11	681
1980-1984	73	16	79,901	70,000	79,326	88,000	85,262	65	16	600
1985-1989	94	21	74,243	64,329	72,249	81,750	76,869	87	21	563
1990	17	4	77,640	70,000	73,434	80,000	85,604	15	4	556
1991	10	2	67,474	63,301	70,000	72,950	70,429	10	2	499
1992	27	6	72,804	62,382	70,000	74,250	75,019	24	6	510
1993	19	4	68,967	59,000	68,000	75,278	71,757	13	3	562
1994	19	4	61,466	59,000	62,000	66,750	63,685	19	5	472
1995	15	3	59,103	52,250	58,789	64,094	59,606	14	3	393
1996	20	4	52,149	44,000	50,000	60,000	54,672	17	4	400
1997	17	4	52,449	44,500	49,291	62,500	55,190	14	3	359
1998	10	2	53,689	51,625	53,743	56,975	55,216	10	2	383
1999	5	1	44,050	40,000	40,800	41,200	46,742	5	1	347
2000-2001	6	1	40,987	32,100	40,576	52,516	42,434	5	1	489
Total	455							407		

Table 5b: Year of Graduation Statistics (Geoscientists)

Year of Graduation	Salary # Reported	%	Based on Base Salary Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	Points # Reported	%	Mean Points
1965-1974	7	25	60,057	51,393	60,000	67,057	61,243	7	27	603
1975-1984	9	32	75,155	65,000	77,000	84,000	84,000	7	27	597
1985-1989	7	25	72,209	66,000	72,000	77,500	74,351	7	27	556
1990-2000	5	18	55,000	50,000	54,000	60,000	57,500	5	19	449
Total	28							26		

Table 5c: Year of Graduation Statistics (EIT/GITs)

Year of Graduation	Salary # Reported	%	Based on Base Salary Mean	Lower Quartile	Median	Upper Quartile	Mean Total Income	Points # Reported	%	Mean Points
1980-1994	13	6	57,193	50,000	56,154	65,000	59,286	11	6	464
1995	8	4	49,330	47,130	49,500	52,075	49,705	8	4	324
1996	11	5	50,170	39,900	50,000	59,000	50,903	11	6	304
1997	12	6	51,050	47,000	51,000	54,400	51,883	12	6	321
1998	24	11	48,743	42,000	46,400	52,250	50,124	23	12	343
1999	31	15	47,667	41,325	46,000	54,355	50,122	28	15	287
2000	34	16	45,389	40,625	45,500	48,000	46,886	30	16	288
2001	39	18	41,240	36,987	40,000	45,000	42,506	32	17	273
2002-2003	40	19	40,007	35,375	40,000	44,000	41,304	33	18	242
Total	212							188		

Table 6: Employee Benefits

Paid Benefits	Number of Respondents	Employer Pays Or Employer Offers (%)	Shared Costs (%)
APEGM Dues	859	59	3
Continuing Education	729	53	34
Daycare	335	2	1
Dental Plan	889	37	54
Flex Hours	897	71	N/A
Job Sharing	826	21	N/A
Leave of Absence	870	68	N/A
Liability Insurance	541	63	7
Life Insurance	871	28	53
Long Term Disability	851	41	42
Medical Plan	866	38	52
Pension	800	17	68
Productivity Incentive	852	17	N/A
Profit Sharing	860	26	N/A
RRSP	637	5	34
Savings Plan	843	20	N/A
Short Term Disability	842	49	39
Stock Purchase	373	3	19
Technical Society Dues	670	53	6
Training	742	78	15
Vehicle	459	21	14

Table 7: Average Classification Rating Results

Classification Rating	All	Engineer	Geoscientist	EIT / GIT
A-duties	98	122	113	37
B-education	69	69	79	66
C-experience	94	111	108	49
D-Recommendations	108	123	105	73
E-Supervision	72	79	79	54
F-Leadership authority	35	43	44	12
G-Supervision scope	9	11	8	4
H-Seal	6	9	5	0
I-Job environment	2	2	4	2
J-Absence from base of operations	2	2	3	1
K-Accident and health hazards	4	4	6	4
TOTAL	500	576	556	302

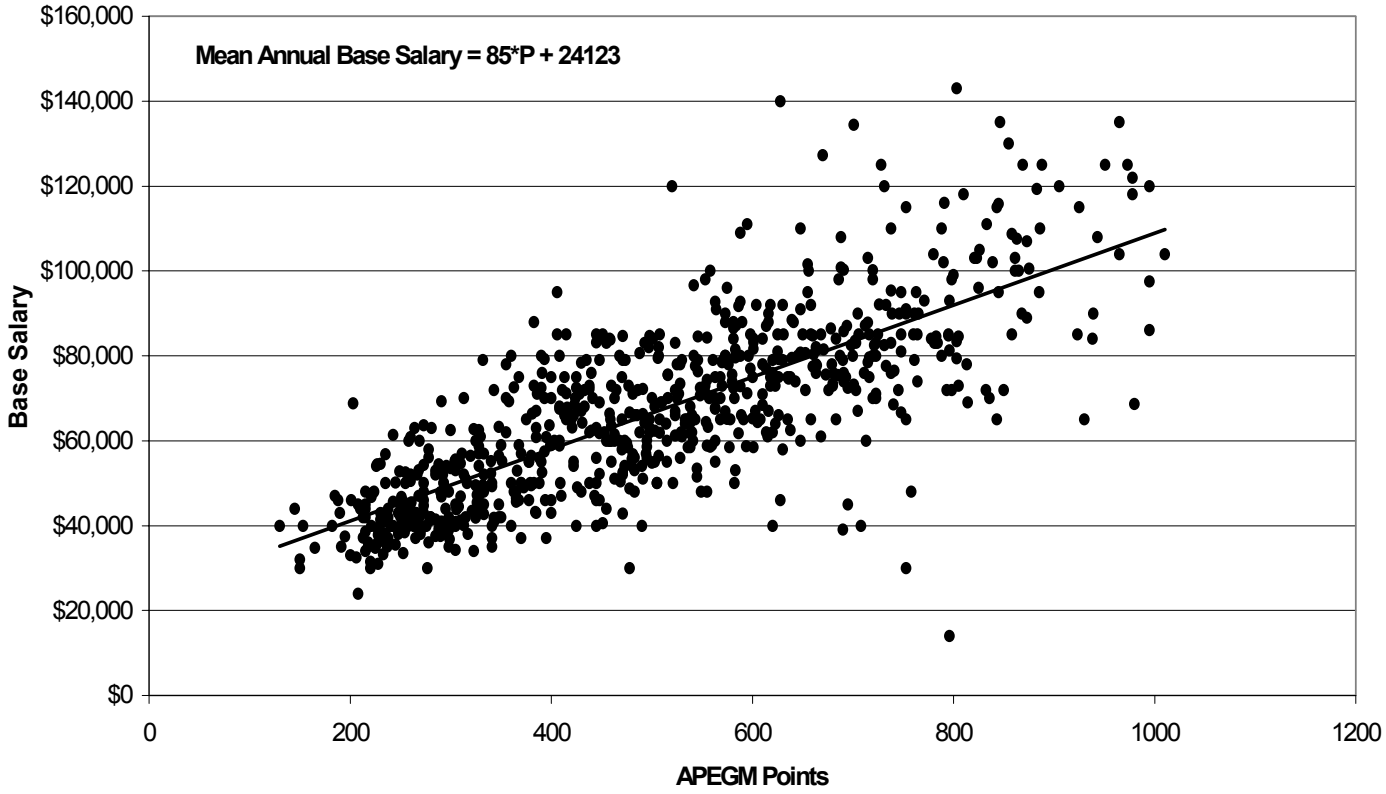

Figure 1: Employee's Base Salary vs APEGM Points

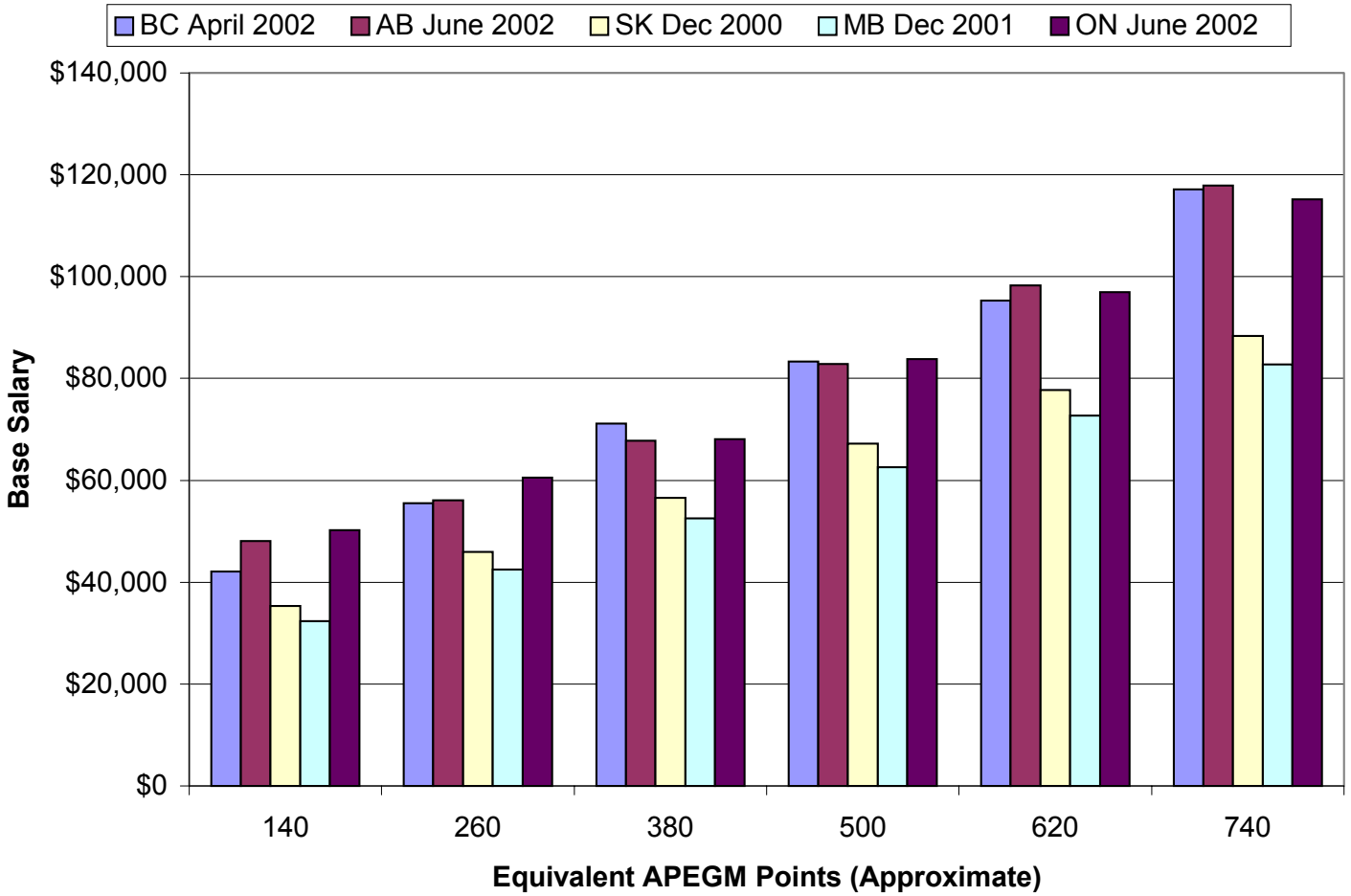

Figure 2: Comparison of Mean Base Salaries in Other Provinces

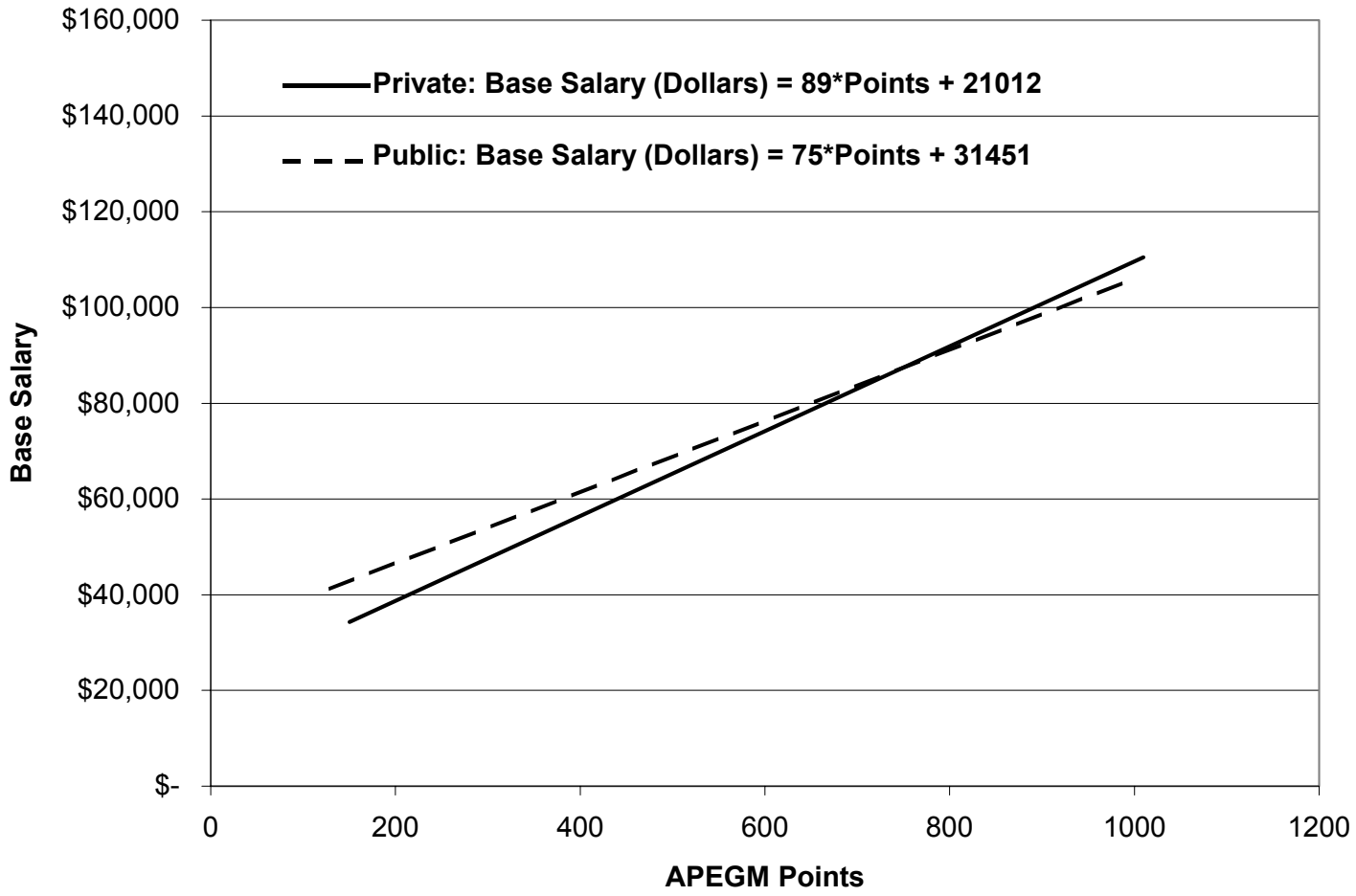

Figure 3: Employee's Base Salary vs APEGM Points for Public and Private Sectors

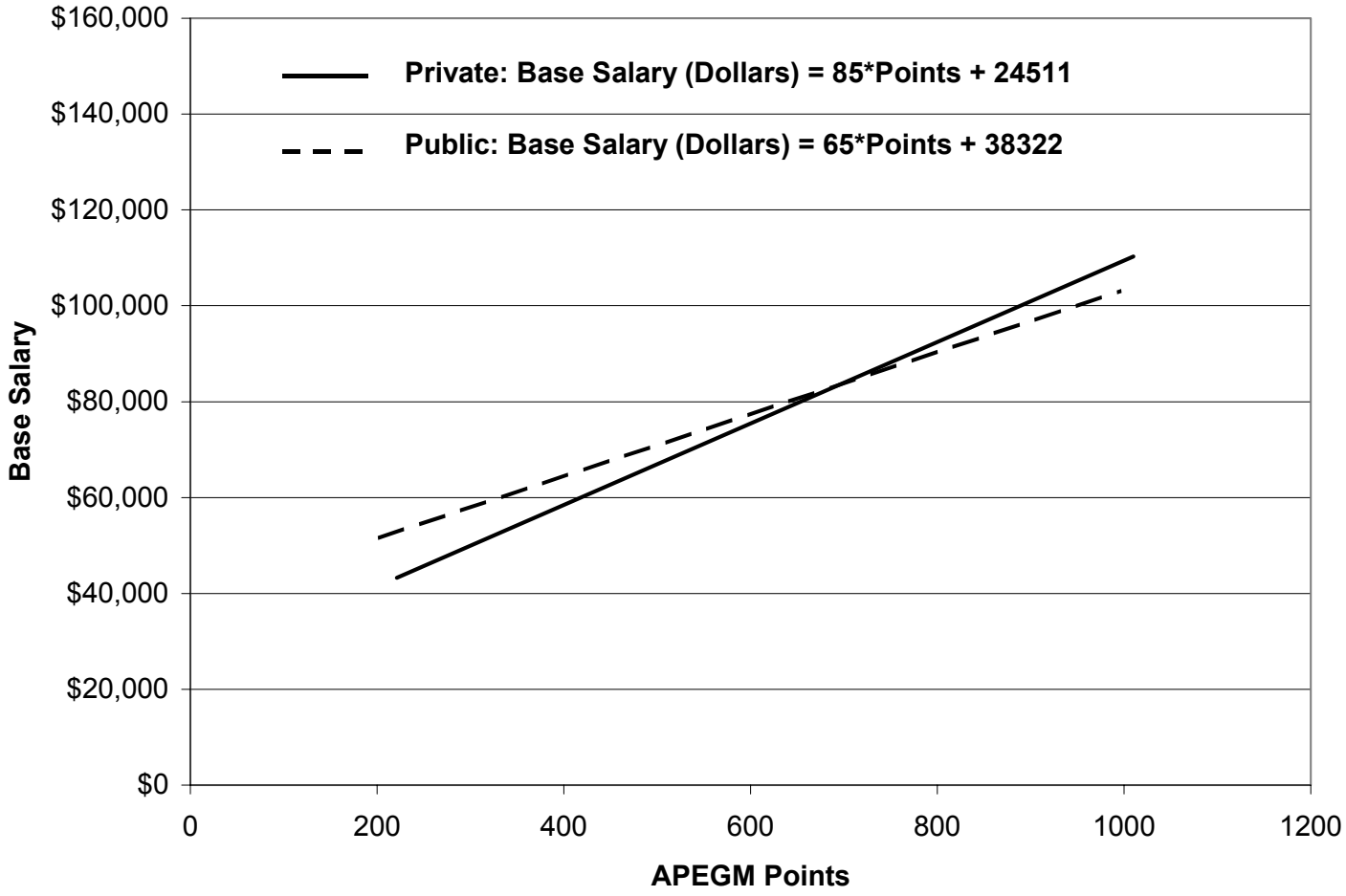

Figure 3a: Employee's Base Salary vs APEGM Points for Public and Private Sectors (Engineers)

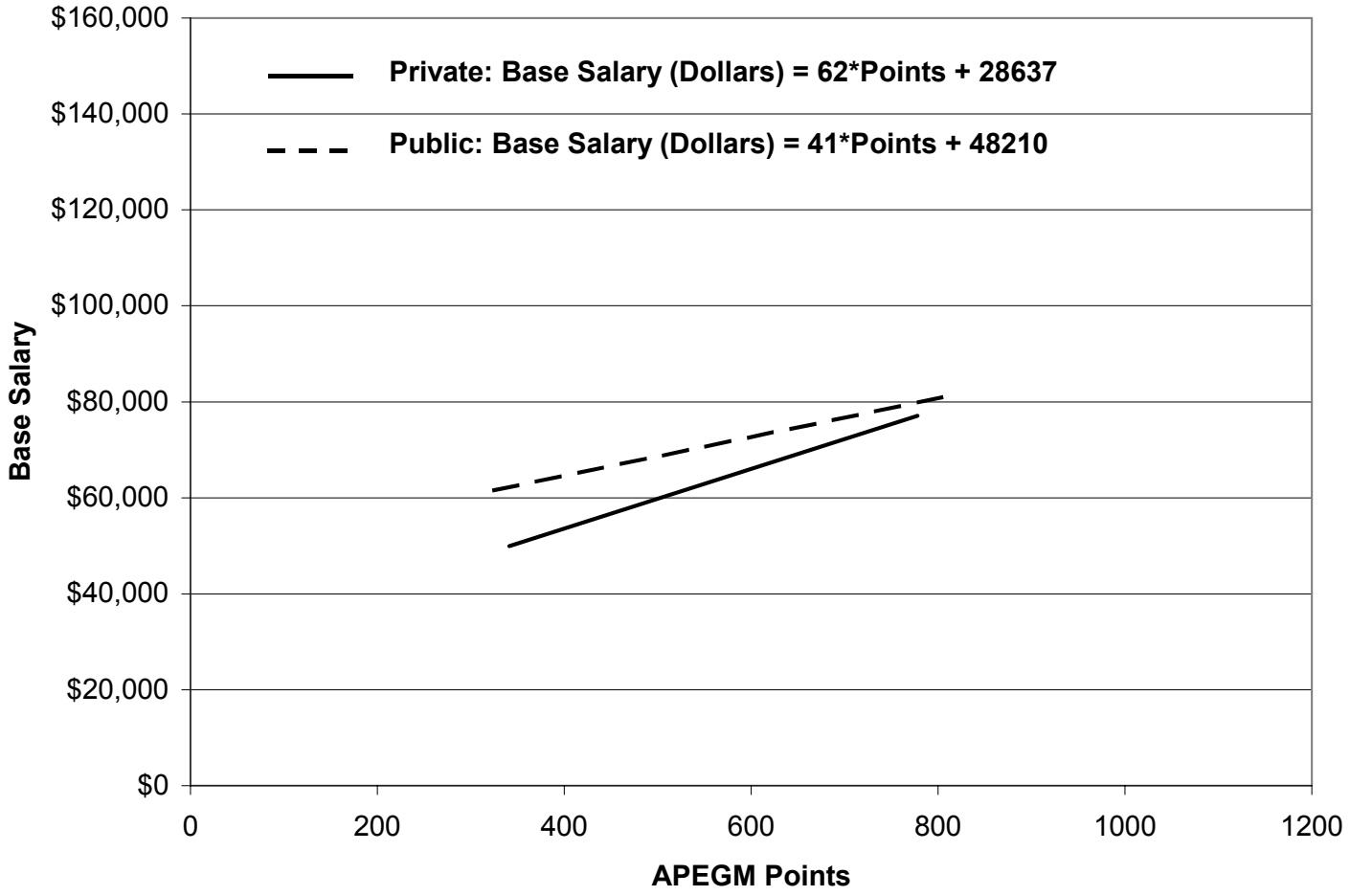

Figure 3b: Employee's Base Salary vs APEGM Points for Public and Private Sectors (Geoscientists)

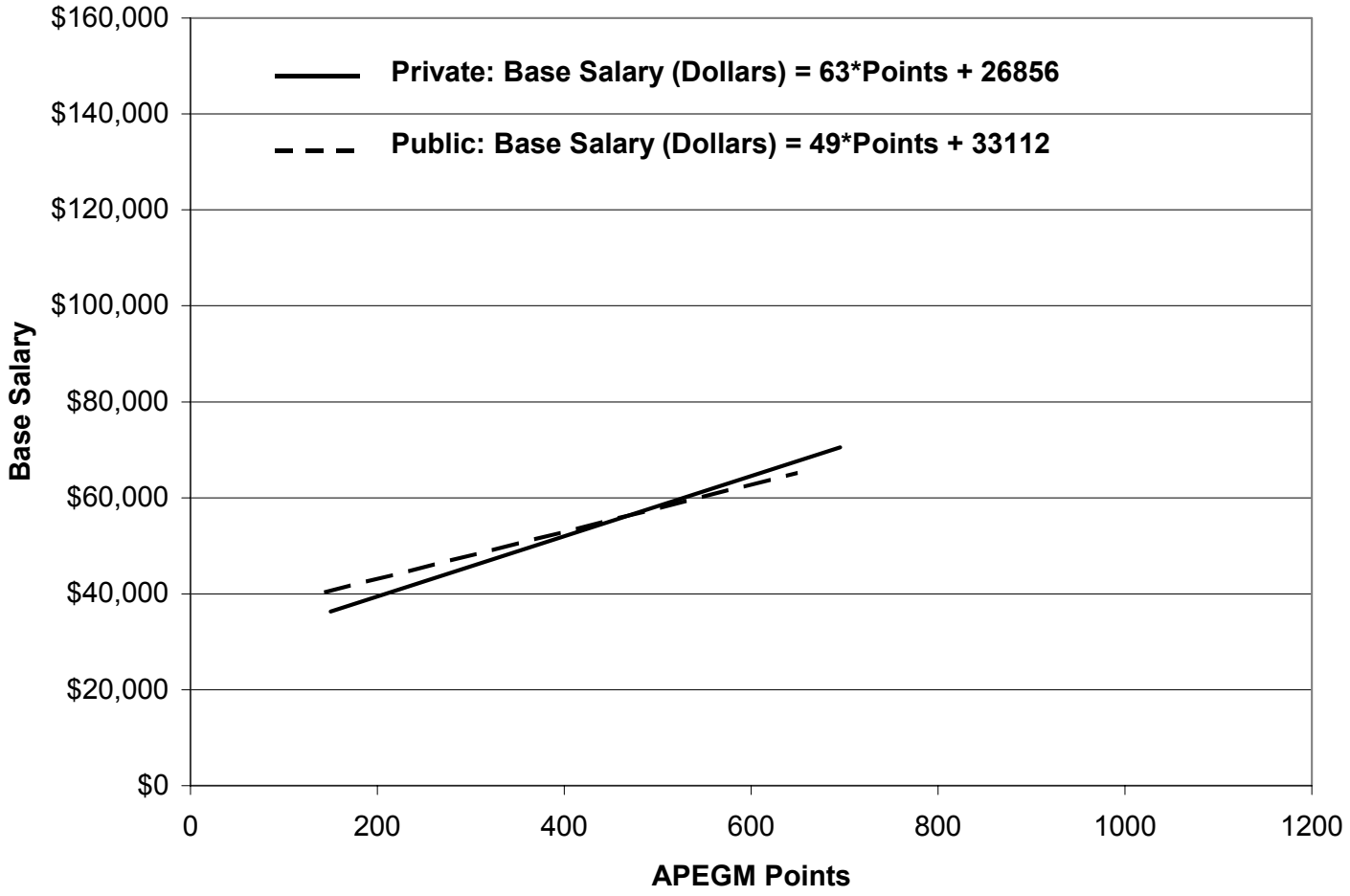

Figure 3c: Employee's Base Salary vs APEGM Points for Public and Private Sectors (EIT/GITs)

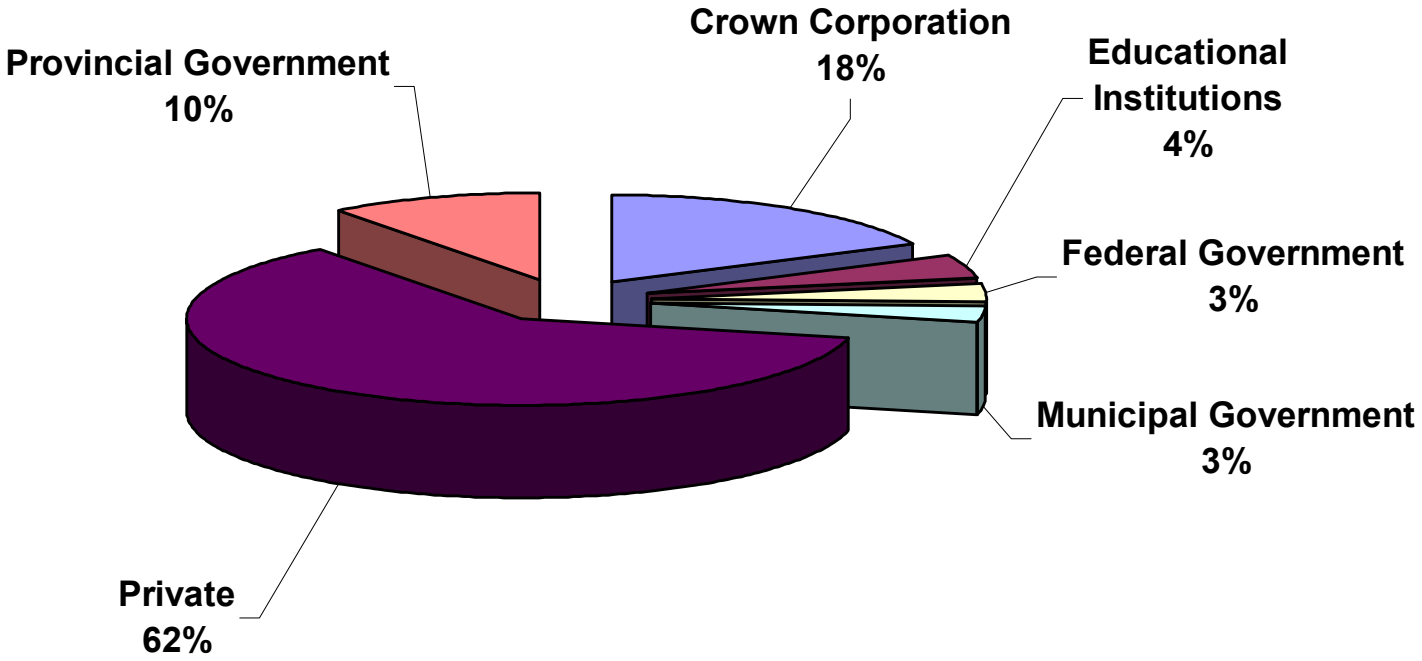

Figure 4: Responses by Sector

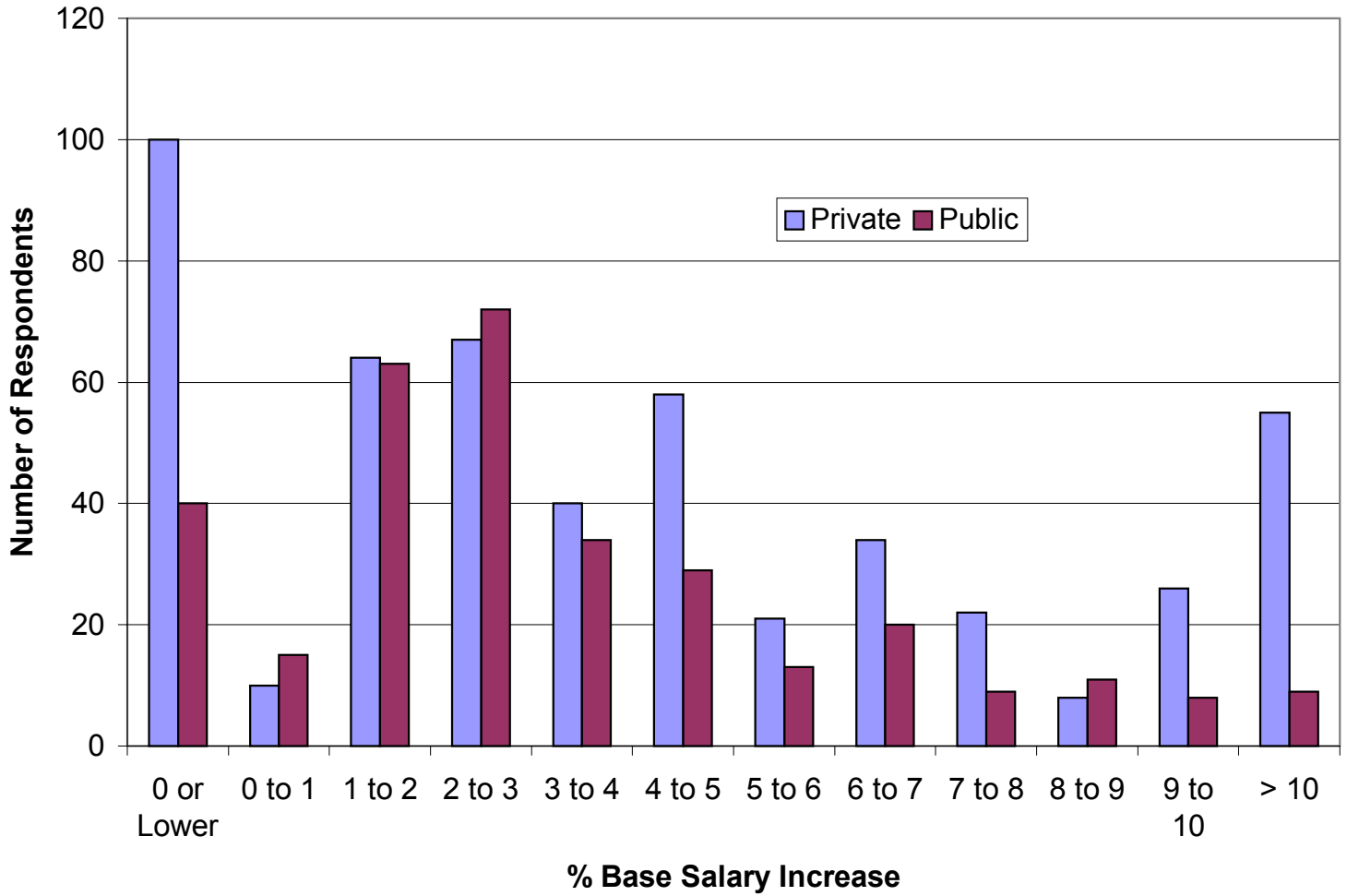

Figure 5: Base Salary Increase During the Past Year by Sector

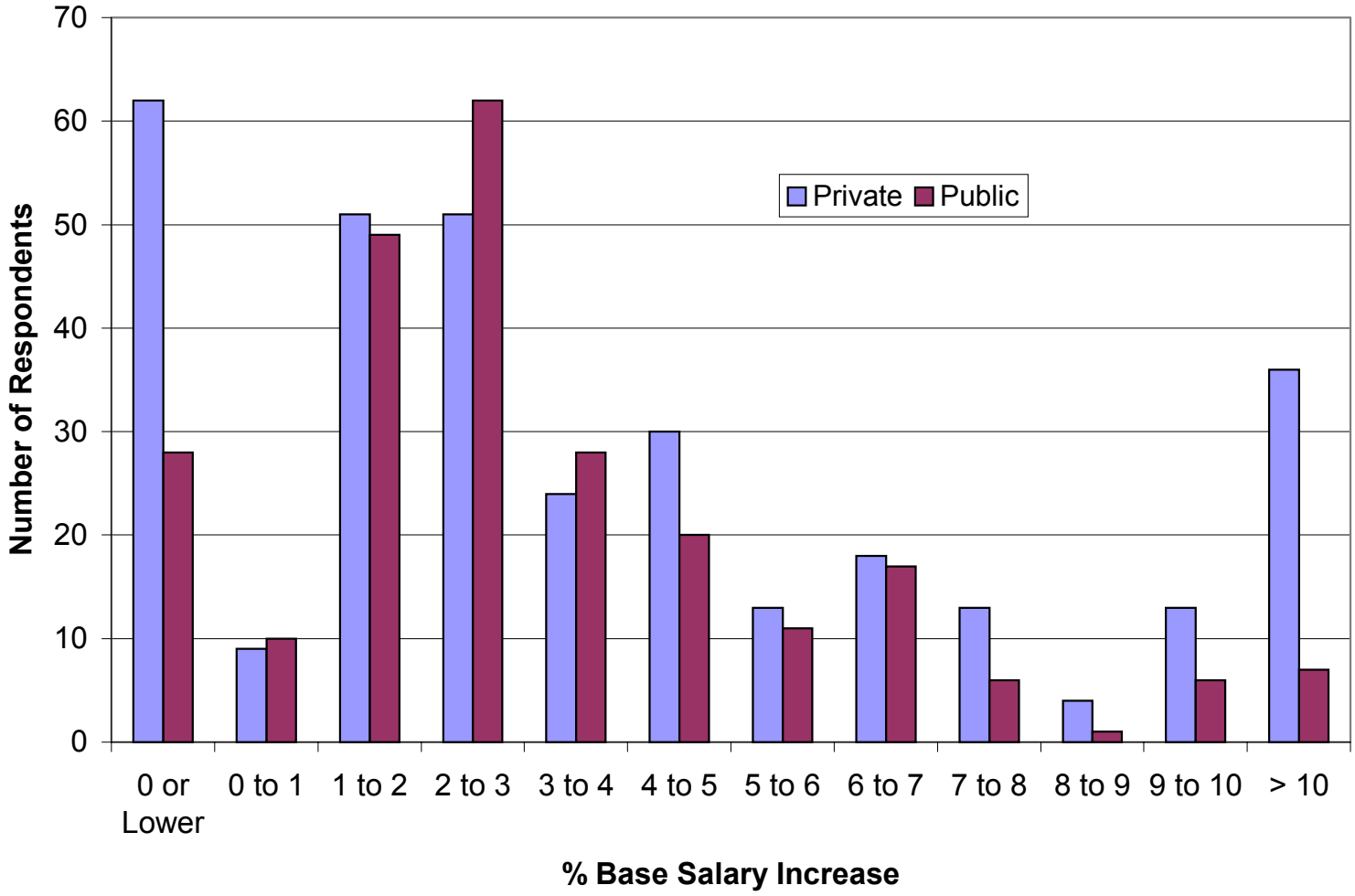

Figure 5a: Base Salary Increase During the Past Year by Sector (Engineers)

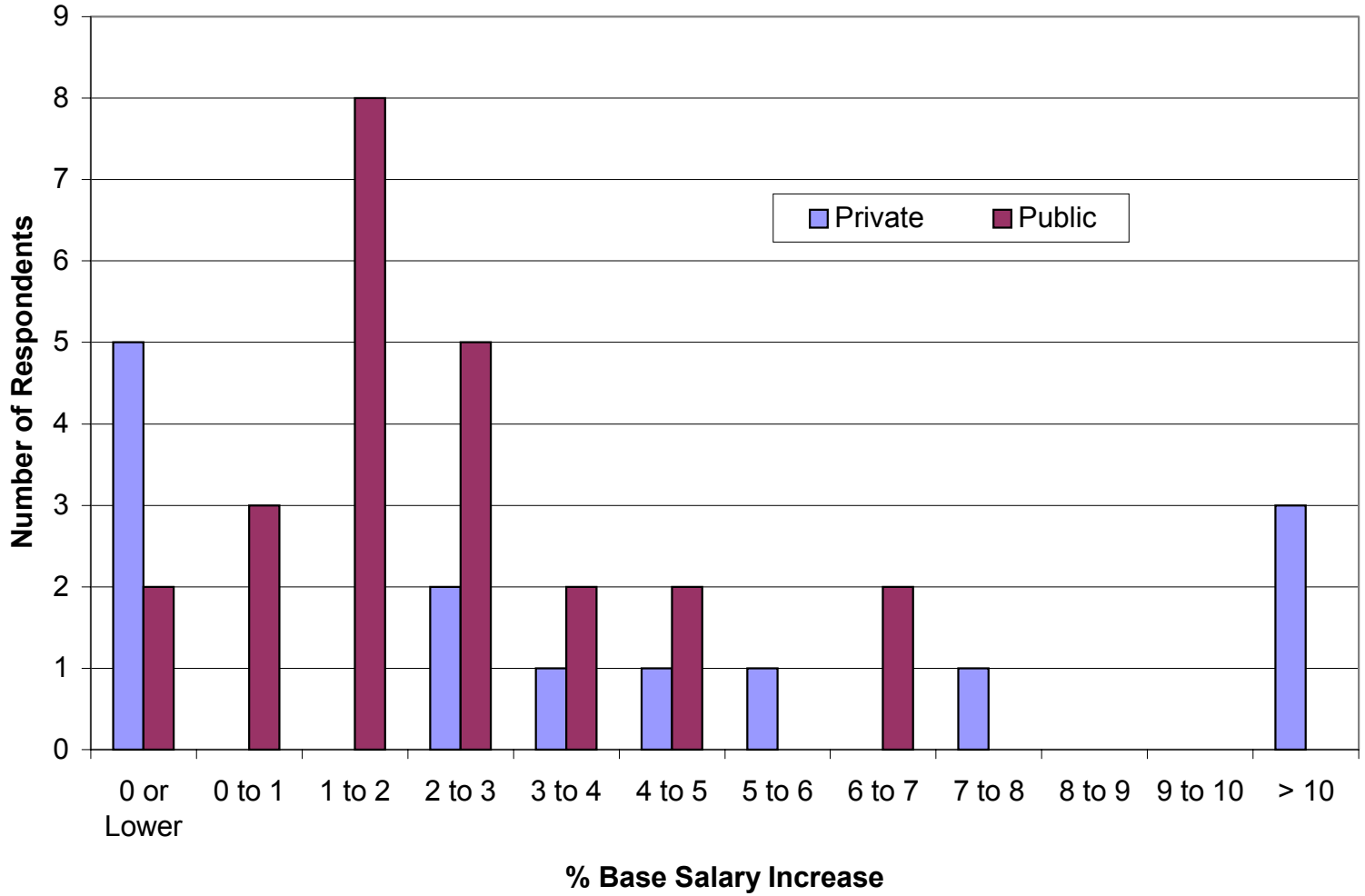

Figure 5b: Base Salary Increase During the Past Year by Sector (Geoscientists)

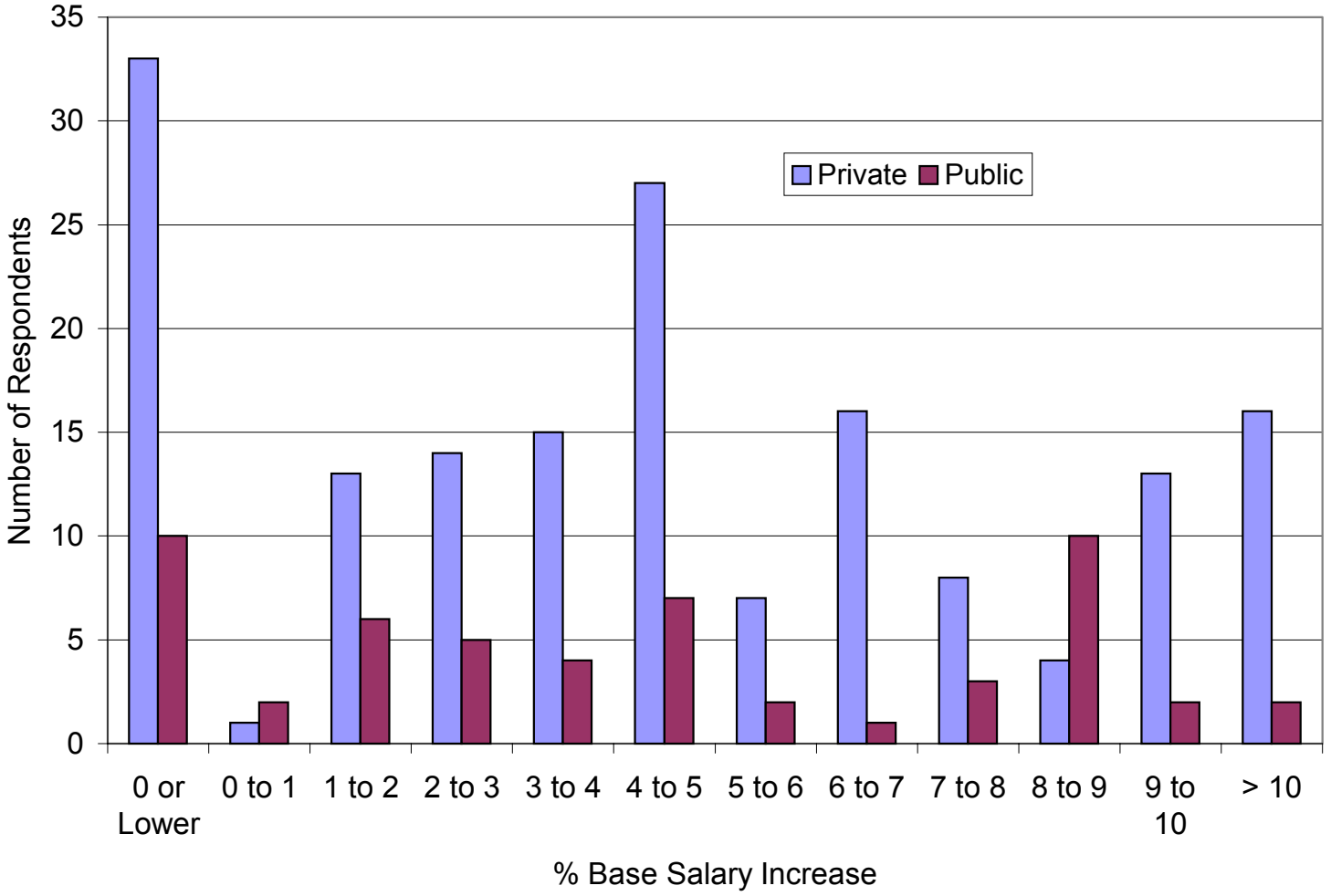

Figure 5c: Base Salary Increase During the Past Year by Sector (EIT/GITs)

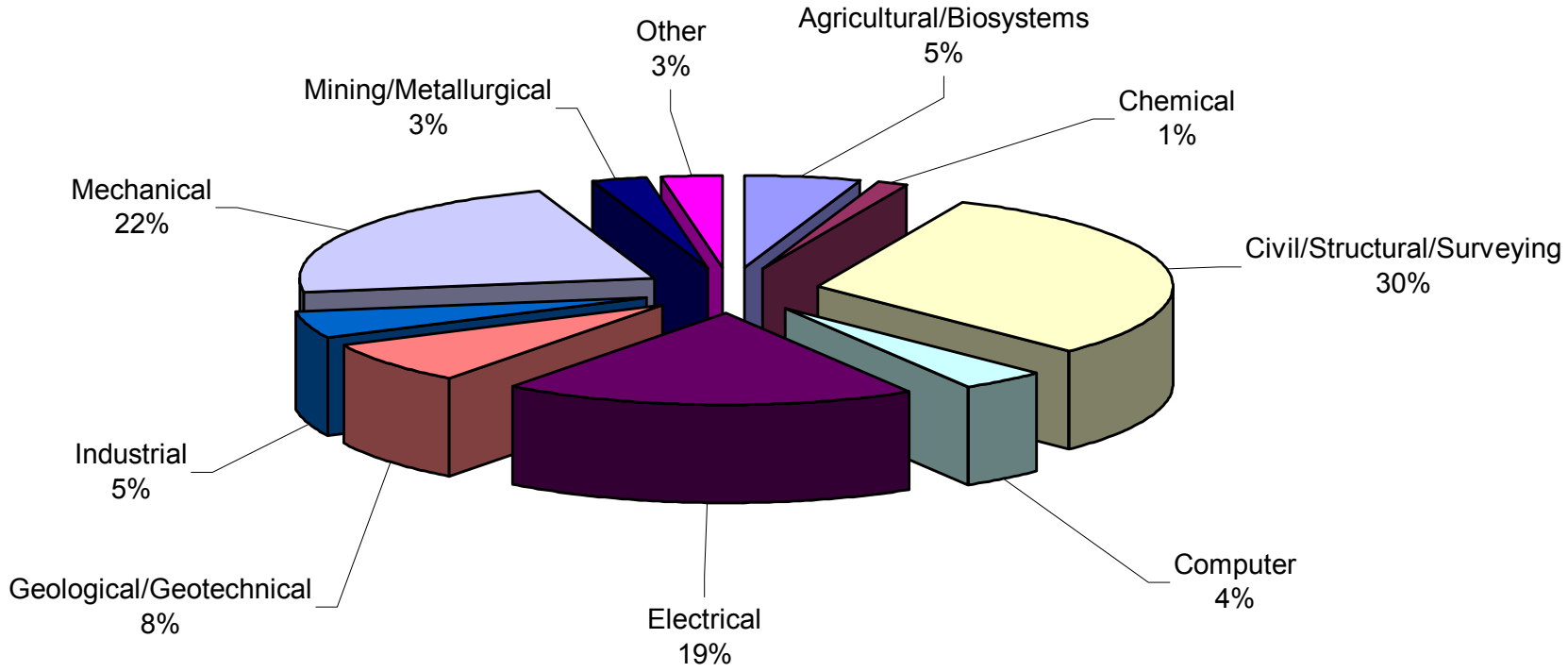

Figure 6: Responses by Discipline (% of Respondents)

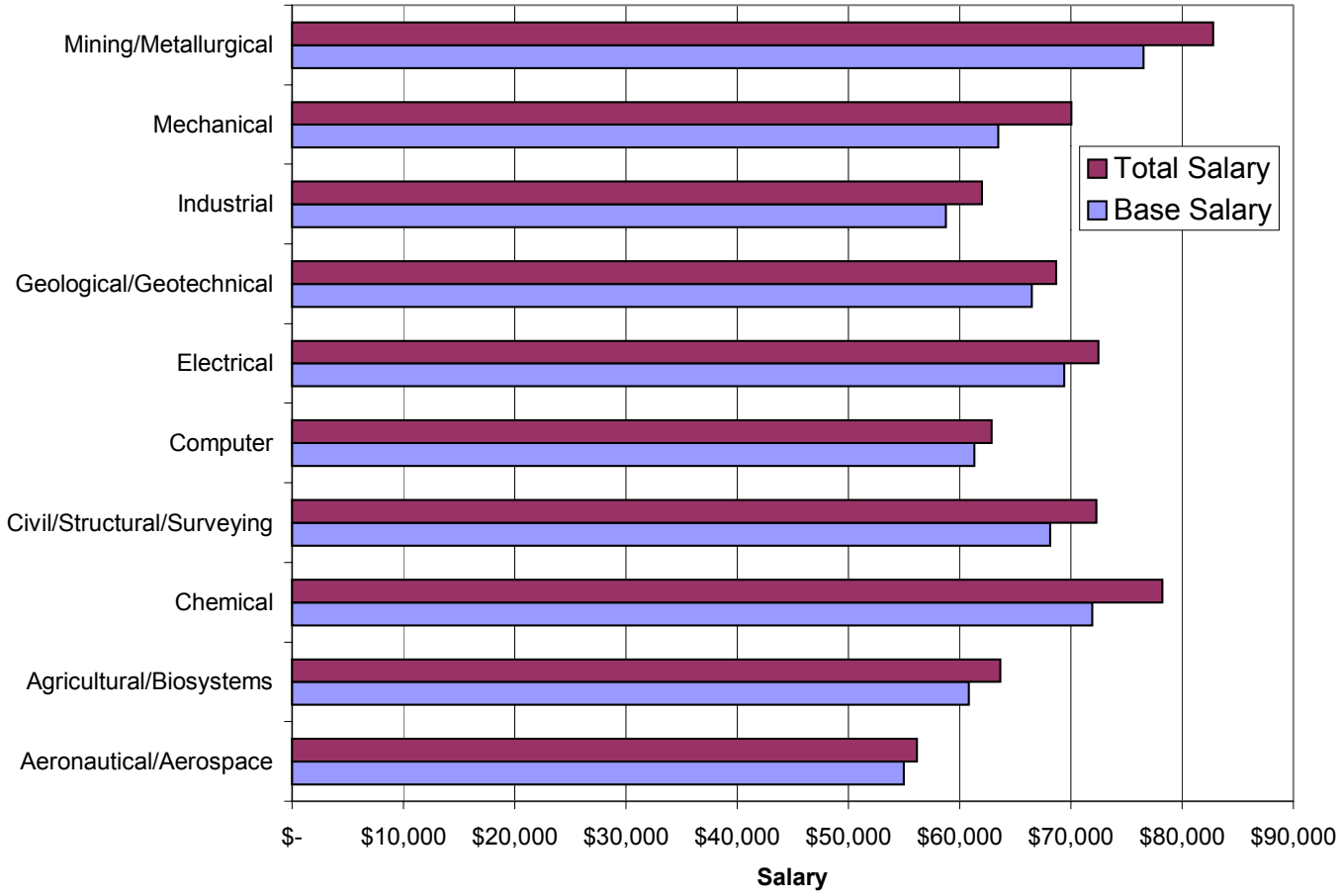

Figure 7: Base Salary and Total Salary (Including Commissions, Allowance, and Bonuses) By Discipline

Figure 8: Base Salary vs Years Since Graduation

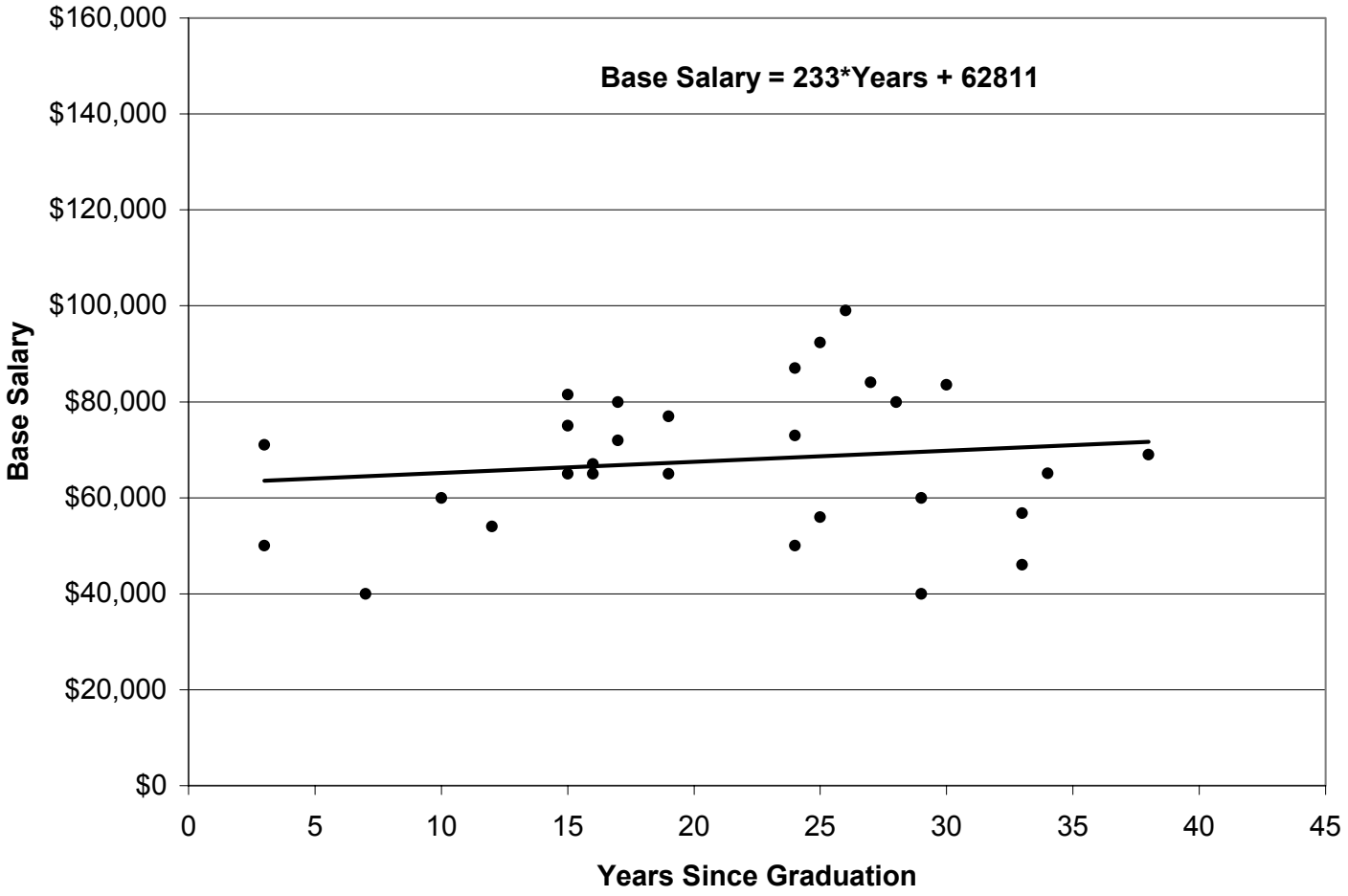

Figure 8a: Base Salary vs Years Since Graduation (Geoscientists)

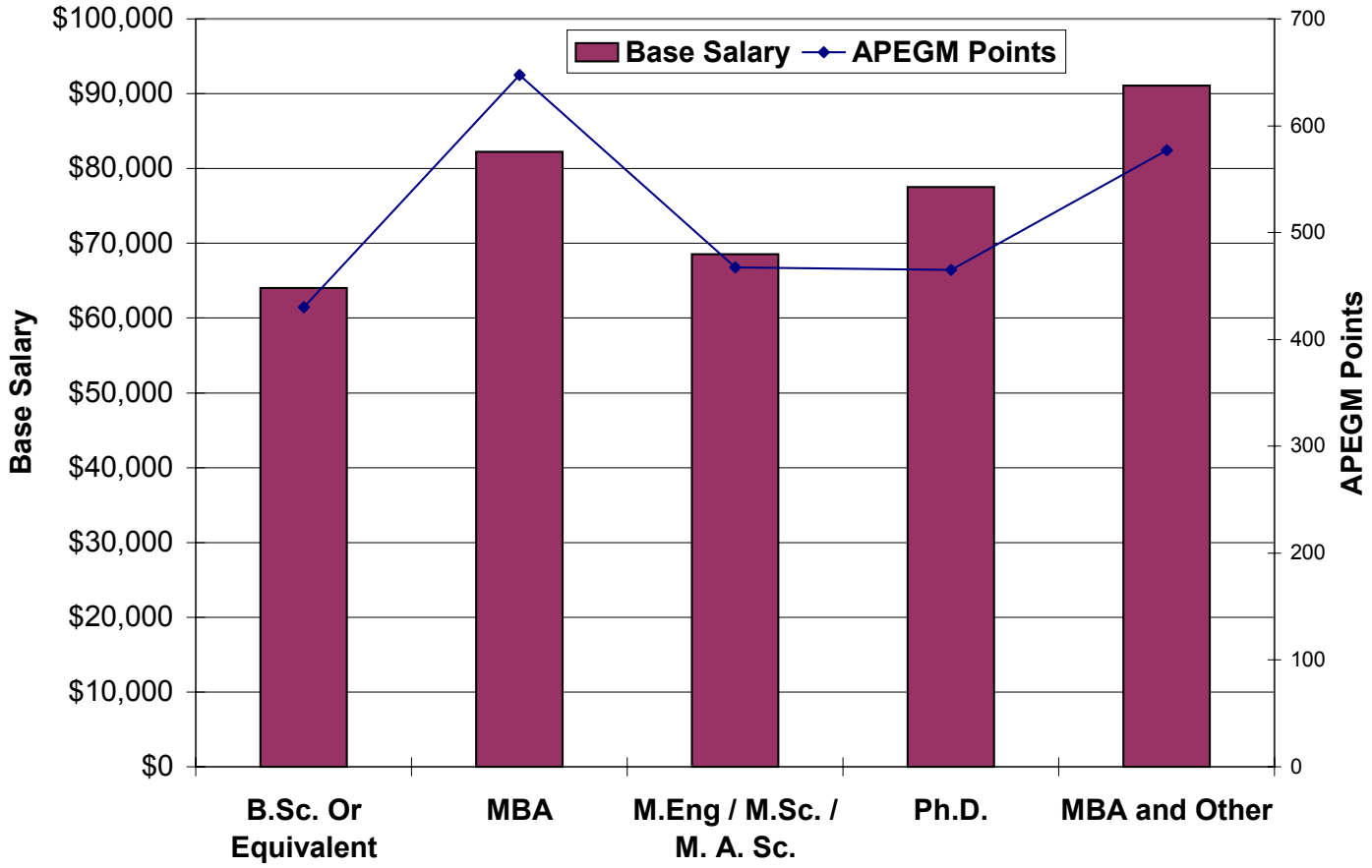

Figure 9: Base Salary and APEGM Points for Post Graduate Education

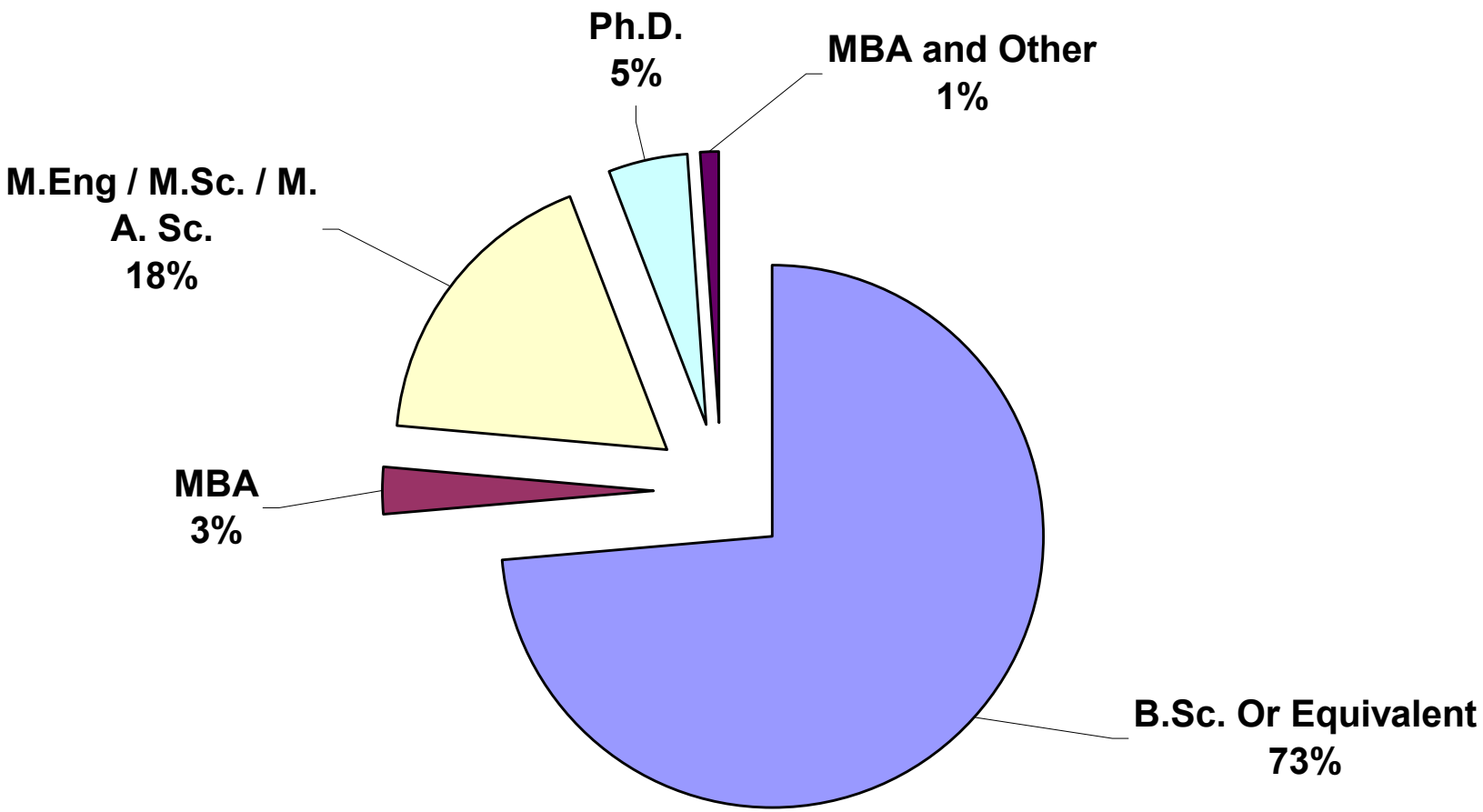

Figure 10: Proportion of Respondents with Post Graduate Degrees

Figure 11: Base Salaries for Different APEGM Point Ranges by Gender.

Figures to right of bars indicate number of respondents in each category.

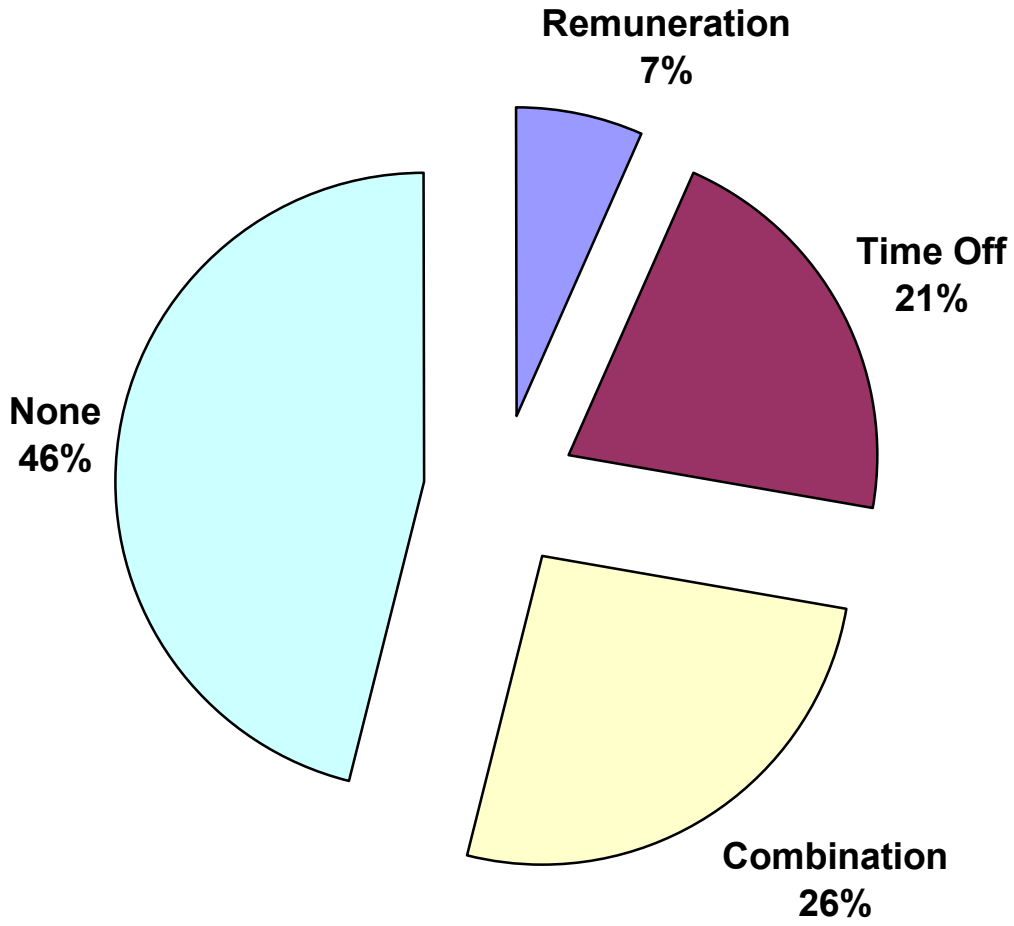

Figure 12: Compensation for Overtime

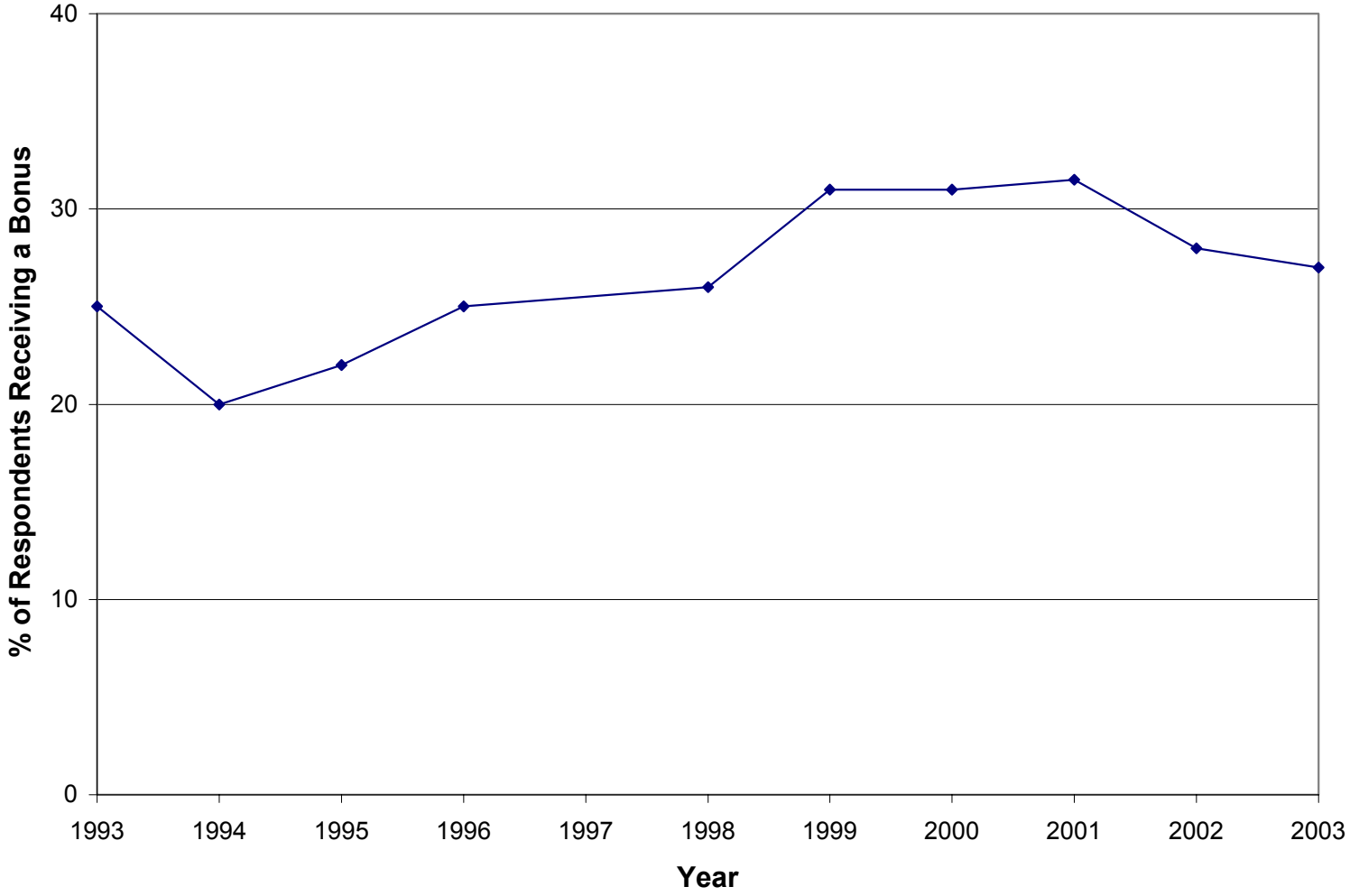

Figure 13: Percent of Respondents Receiving a Bonus

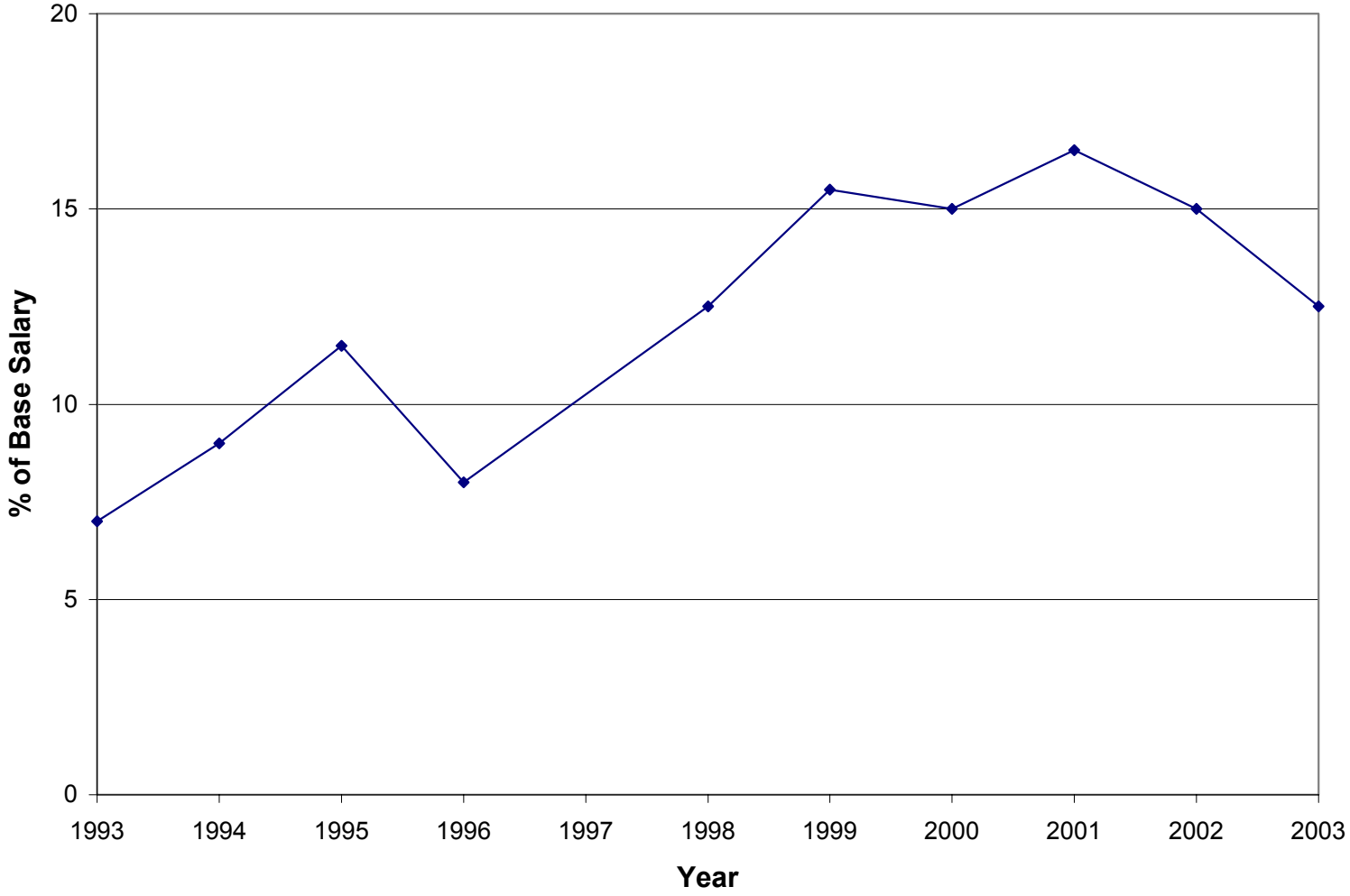

Figure 14: Bonuses as a Percent of Base Salary

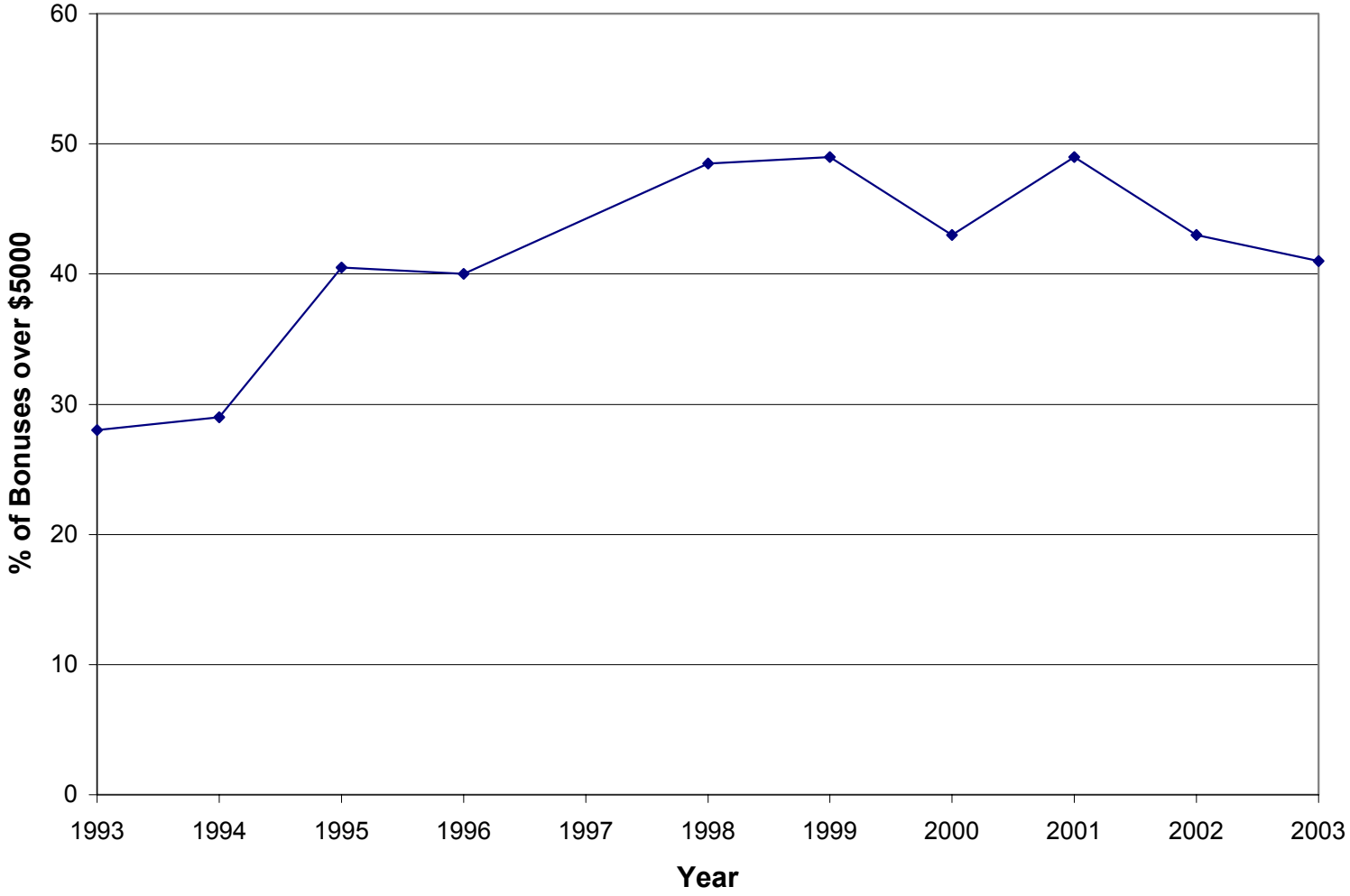

Figure 15: Percent of Bonuses over $5000

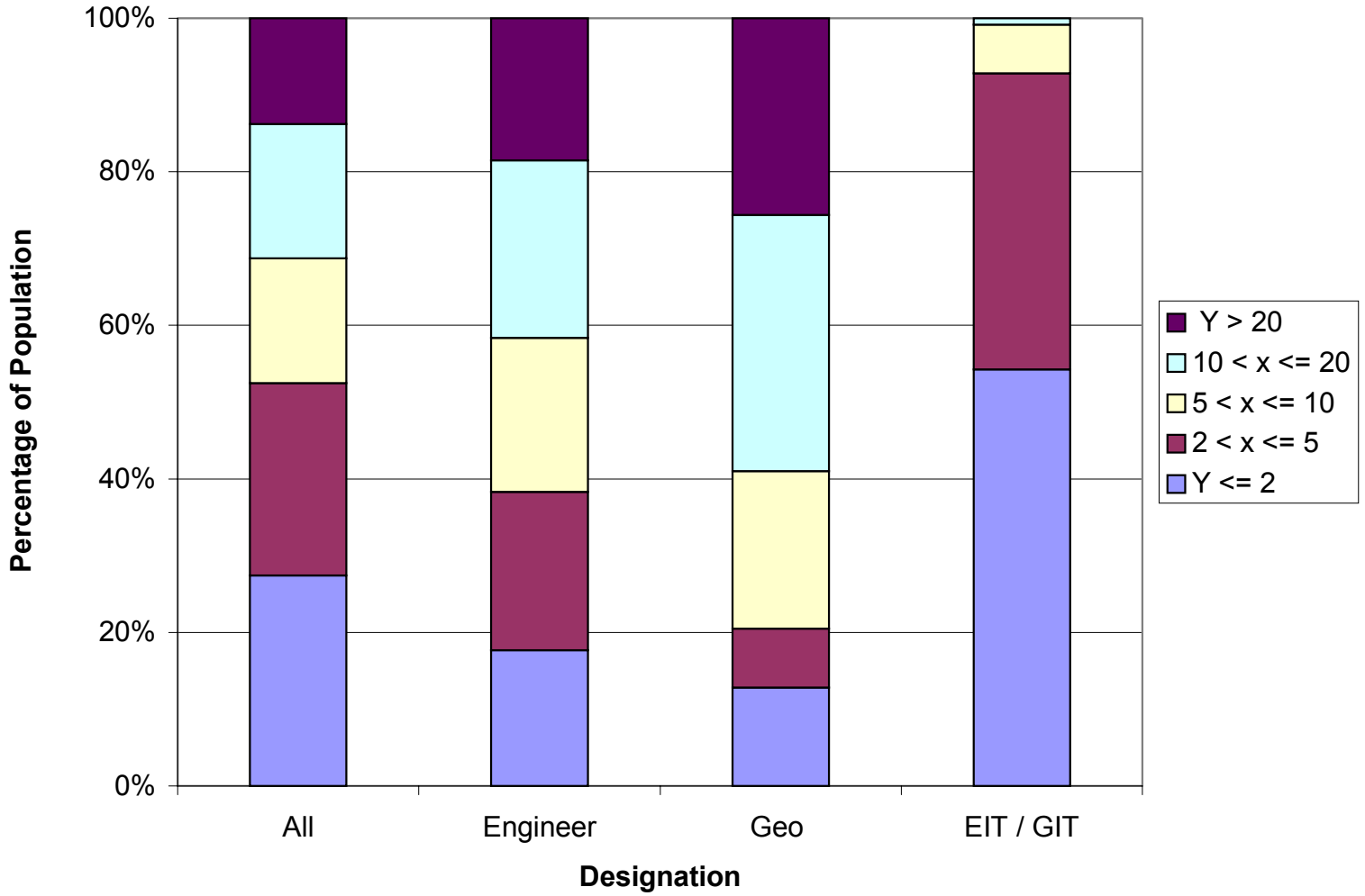

Figure 16: Number of Years with Current Employer.

Numbers used: All, n = 785; Engineer, n = 600; Geoscientist, n = 39; EIT/GIT, n = 236.

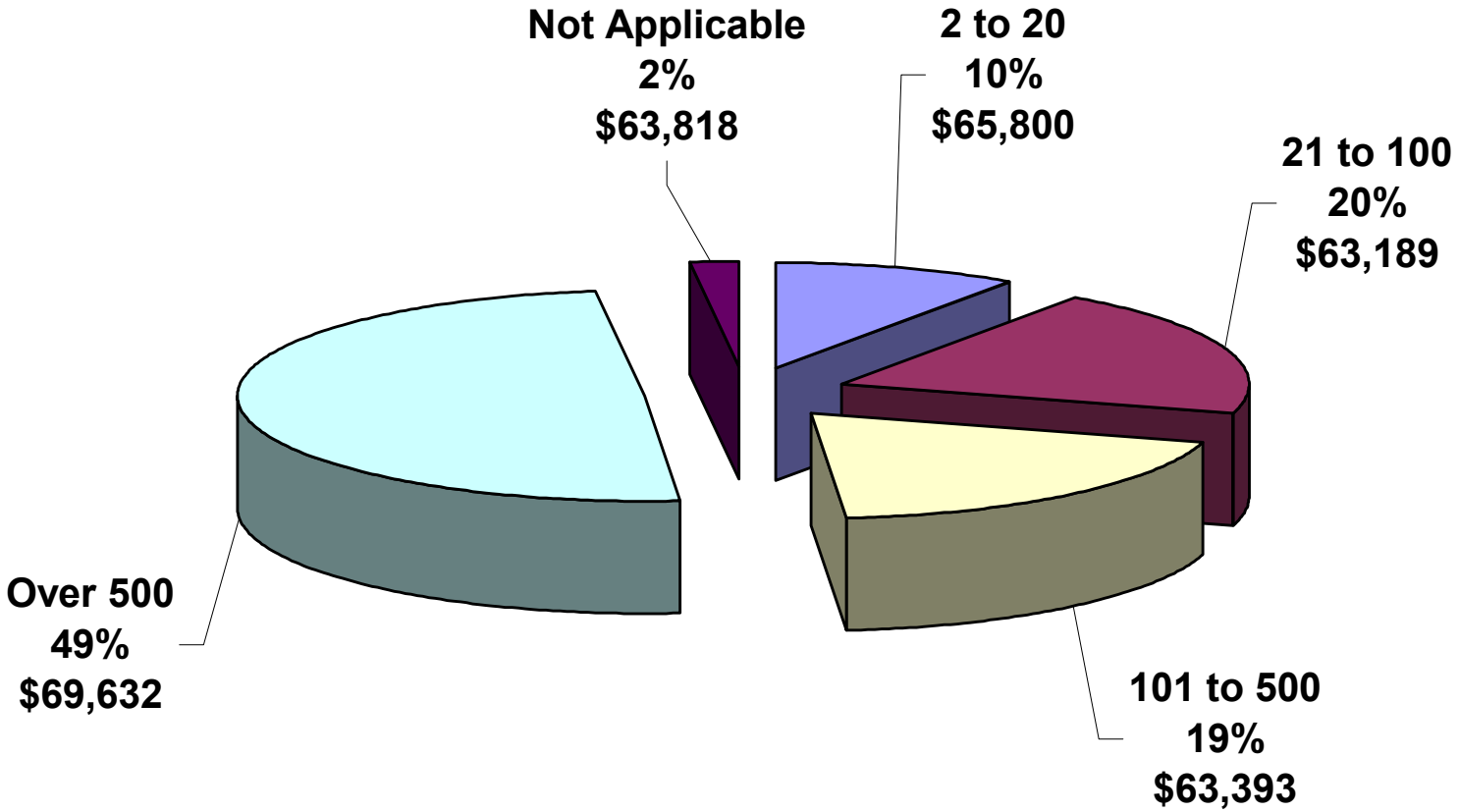

Figure 17: Number of Employees at Current Employer and Average Base Salary

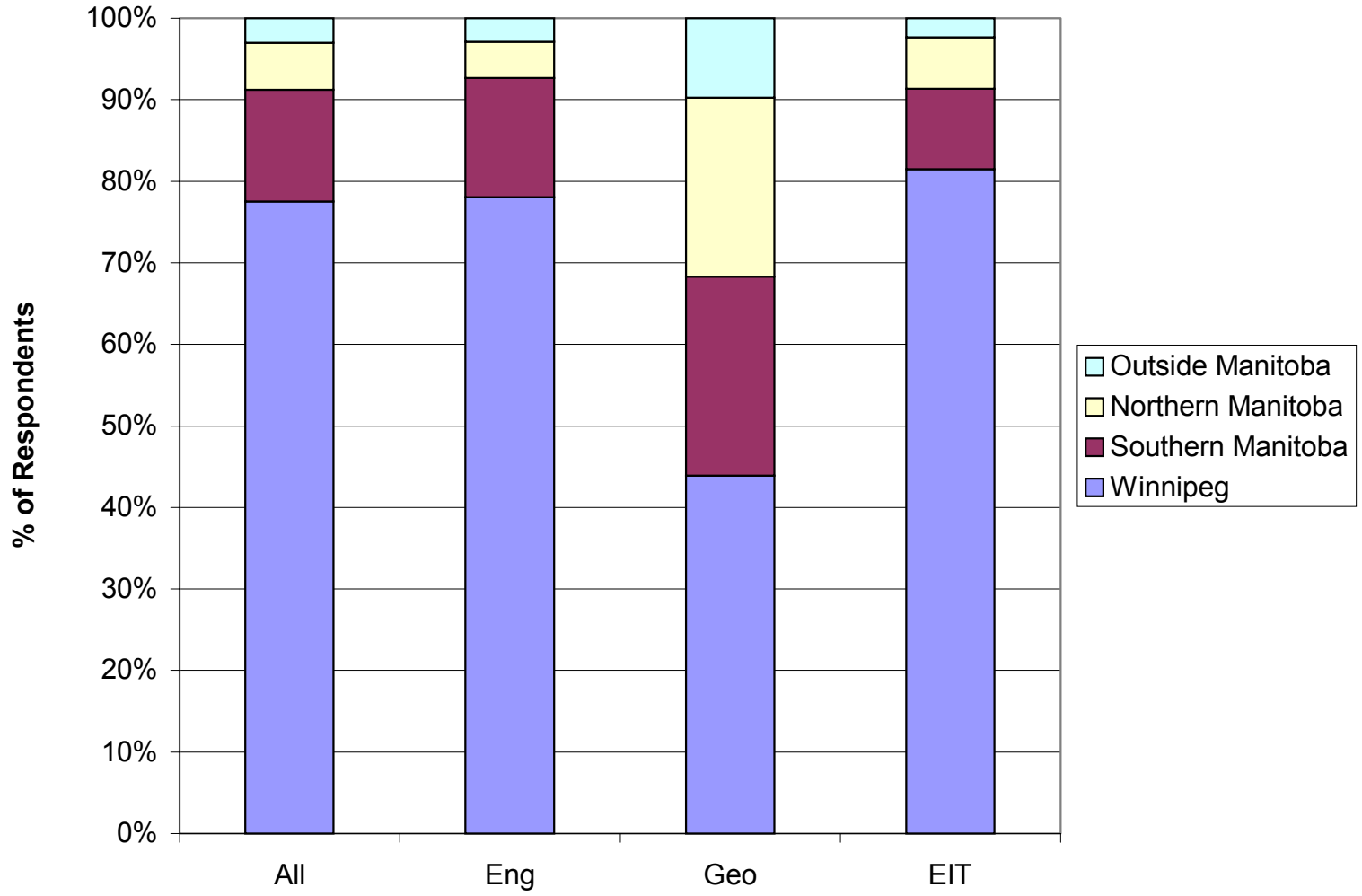

Figure 18: Principal Work Location.

Numbers used: All, n = 924; Engineer, n = 629; Geoscientist, n = 41; EIT/GIT, n = 254.