APEGM 2005 Salary Survey

APEGM Salary Research Committee

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1. Highlights

1.1. Survey Highlights

Once again the survey was conducted via a web-based format to reduce costs and to encourage a greater response rate. This year the response rate was the highest ever at 36% compared to 31% for the previous two years. Separate sub segment analysis was done for Engineers, Geoscientists and EIT/GIT members. For the first time, a question of satisfaction with remuneration was added with 28% indicating that they were very satisfied with their remuneration and an additional 49% indicating that they were somewhat satisfied. Highlights include:

- Highest median income was in the chemical industry sector ($93, 600)
- Top four industry sectors including all respondents were chemical, primary metals, construction and utilities, all had a mean total income over $80,000
- Top three industry sectors for Engineers were Mechanical equipment, Metals-Primary and Chemical, all with a mean total income over $100,000
- For EIT/GIT the highest mean income was in the aerospace sector
- The two job functions with mean total incomes greater than $90,000 were Management and Administrative services.
- The three lowest paid job functions based on mean total income were Design, Quality Assurance and R&D.
- Based on year of graduation, the mean total salary of the various decades was: 60's grads $97,210, 70's grads $92,059, 80's grads $85,458, 90's grads $68,711 and millennium grads $46,661
- APEGM dues were paid by 58% of employers
- Training was fully paid by 73% of employers
- Health, drug and dental plans were fully or partially paid by over 80% of employers
- Salaries for females were 6% higher for jobs with point ratings between 200 and 299 and were 6% lower for jobs with point's ratings between 500 and 599.
- Flexible work hours are available to 70% of members and 26% have profit sharing
- The mean base salary increase was between 3 and 4 percent with over 100 members receiving no increase and another 100 members receiving greater than 10% increases.
- Overall satisfaction with salary remuneration was highest with Geoscientists and lowest with EIT/GIT members.
- About one third of the members worked for firms with less than 100 employees or were self employed
- About one quarter of all members indicated that had obtained a post graduate degree with 43% of Geoscientists have a post graduate degree
- The response rate for various subgroups was: 42% for females, 33% for males, 50% for EIT/GIT and 24% for Geoscientists based on total registrations.

1.2. Membership Response

- Invitations to complete the web-based survey were sent to 3207 APEGM members and EIT/GITs resident in Manitoba (273 female and 2,934 male) in April 2005. Responses were accepted until May 2, 2005. The reference date for the survey was December 31, 2004.

- Responses were received from 1179 members for an overall response rate of 36.8%, compared to 31% in 2004, 31% in 2003 and 24% in 2002.

- Of the responses, 70% (750/1077) were Engineers, 3% (37/1077) were Geoscientists, and 27% (292/1077) were EIT/GITs.

- The response rate for Engineers was 30% (750/2462). The response rate for Geoscientists was 24% (37/156). The response rate for EIT/GITs was 50% (292/589). The response rate for Female members was 42% (116/273). The response rate for Male members was 33% (957/2934).

- This year, 25% (74) of the (292) respondents who were EIT/GITs graduated more than 5 years ago.

- This year was the third year that the APEGM used a web-based survey.

1.3. 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 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.

1.4. Exclusions

Although 1179 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. Second, some 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 bringing the number of valid responses to 1077. The following equations were used to determine an upper cut off and a lower cut off point for Base Salary calculations and Mean Base Salary vs. APEGM Points Equation:

BSCupper	= *UQ + 3* IQR*	*BSC*	= Base Salary Cut Off
BSlower	= *LQ* - 3 * *IQR*	*UQ*	= Upper Quartile
IQR	= *U Q - L Q*	*LQ*	= Lower Quartile
		IQR	= Inter-Quartile Range

The upper cut off salary was determined to be $185,000. The lower cut off was negative in magnitude and thus did not apply. A total number of 7 respondents exceeded the upper cut off salary and were thus excluded from further base salary analyses. Additionally, several responses were excluded because their point totals were unreasonably high, low or missing. As a result, 1070 responses were used for the base salary versus APEGM points, and base salary analyses versus year of graduation plots. The total numbers of responses are indicated in the base salary tables for other criteria.

1.5. Education

- Of the respondents, 25% (271/1077) indicated that they had obtained a postgraduate degree.
- By membership category, this equates to 27% (206/750) of Engineers, 43% (16/37) of Geoscientists, and 18% (49/292) of EIT/GITs.
- 90.7% of respondents indicated their first degree in Engineering or Geoscience was from a Canadian university.

1.6. Gender

- Overall, 89% (957/1073) of respondents were male and 11% (116/1073) were female.
- Of the 1073 respondents, 61% (583/957) of the males graduated after 1985, and 91% (105/116) of the females graduated after 1985.

1.7. Workplace Information

- The average official workweek was 38.4 hours.
- The typical number of hours worked was 43.6 hours.
- The average number of weeks of vacation reported was 3.6.
- The average respondent has been with their current employer for 11.5 years.
- This year, 63% of respondents were from the private sector, compared to 63% last year, and 62% the year before last.

1.8. Comments

- This year, 8% provided written comments on their APEGM Salary Survey, compared with 11% who left comments in 2004, and 13% in the 2003 survey.
- In the comments, 45% commented on the survey format (positive and suggested changes), 19% commented on their personal results, 13% commented on the engineering and geoscience professions, and 23% made general comments.

2. Comments in Detail

2.1. Survey Format (Positive)

- Survey was fast and simple, easy to complete.
- Overall very easy survey to complete.
- Good job
- Survey is better than last years.
- Year after year, this questionaire has continually improved. I'm looking forward to the results.
- seems to be a very thorough survey, good job!
- Well designed survey.
  thanks
- Easy as pie. Thanks.
- This survey is clear and right to the point. This is most definately an improvement over the past year. It took approximately 10 minutes to complete the survey which is satisfactory.
- Well formated survey, easy to follow. Looking forward to the output.
- The form is much improved from last year the Salary Survey Committee are doing an excellant job!
- Nice concise survey!
- The on-line survey is more convenient than the traditional method and I will be more motivated to respond in the future.
- Thanks! This is a very convenient method of surveying.
- survey is improving from year to year
- First time user of web-based salary survey program; congratulations on making this task so user friendly...well done!

2.2. Survey Format (Suggested Changes)

- There is no back command to go back a page to change or review. Problem with one of the earlier sheets asking who pays for your benifits. It was difficult to follow across the field to check the appropriate box, grid lines would have helped. Also I filled in all bubbles except for the ones I did not know (maternity and paternity) and clicked continue, and error message came up stating I did not complete the sheet and put me back to the page that I had justed completed, but the page was blanked out, therefore, I had to fill in all the bubbles again not just the ones I did not fill out. This was annoying. So I had to guess at an answer. Possible a 'Not Sure' bubble would be helpfull.

- For wage increase or decrease, no mention of job change during the year. At one salary, new position then 10% up in salary but no % raise general to the employees or myself within the company.
- Although it only takes 10 - 15 minutes each year, it would be nice to see your last year's responses to speed things up and allow you to be consistent year to year.
- This point system is still lacking - 1) needs to somehow capture hours worked (meaning hours actually being under intense pressue) vs productivity vs responsibility and general job stress. 2) I find that the number of people a person is responsible for has huge implications. If you directly direct 20 people vs having 5 or 6 key reports that filter to 100 to 200 to 1000 others can be significantly different - I think the system needs to better define the above 2 points
- In the job environment section, therer is not a separation for one who works both in an office and a field/data collection environment.
- Since the survey is being taken in April and not published till Autumn, shouldn't the salary be our current salary and not last year's. I am making the assumption here that most employers would make salary adjustments as of Jan 1. Perhaps your report could have some commentary on this.
  My employer rovides a DPSP(I contribute to an employer managed RRSP plan and my employer contributes equally to a DPSP). This is not a pension plan and the employer doesn't pay for the RRSP so there was no option for me to choose in this case.
  Thanks for your efforts in coordinating this annual survey. Much appreciated.
- I like to consider my graduate work as a 'job' but it is difficult to apply these categories to graduate student experience. This might explain any seeming inconsistencies in my responses. As I was only drawing a stipend, my salary is likely an outlier.
- There should have been a warning that you would have to redo the survey if you pressed continue on a section that you had backed up to review/revise
- I would appreciate a one-page printable version of the summary (for my records).
- where is the Back key? You still refer in descriptions as engineers stick in geoscientist for a year and see if the engineers notice. Still not enough description of geoscientist duties especially in mining and exploration. I would like to see a catagory about the availability of electronic communication and tools. It is still poor up north. IE no black berry availability for techno geeks.
- Job descriptors do not seem to include regulatory agency work - federal/provincial.
- Worked like a top! You might include a note on the login page that session cookies need to be on to proceed. Login fails without an error message if they are off.
- Item K of salary survey is confusing. I don't understand what exactly is being accomplished by the matrix shown under that item. Needs clarification or revamping for next year.

- Future surveys should include sick and other time-off benefits.
- Survey need to be interactive and ask different questions if self employed. Also difficult to score if working in a nonengineering role
- Survey is well laid out and quite straight forward.
  It is noted at the start of the survey that it is recommended to write down our 'points' allocations for future reference. It may be a nice feature if a person's previous year's points were displayed as a benchmark for the current year's survey.
- Very annoying when you miss answering a page with many responses and have to go back to find that you have to do them ALL over again. How to find the Guide (e.g. Exposure to Hazards)is not explained or is difficult while doing the survey.
- Please add 'environmental' to the area of engineering in which one works.
- My answers to 2 questions are not within the norm:
  Work Week: I work 2 weeks in and 2 weeks out, 12 hours/day when on the job.
  No. of people in Manitoba: I work outside of Manitoba and my employer does not have a presence in MB but this is not an option in the questionnaire.
- When you have to go back to a form which has not been filled out right, it comes back blank. No big deal for a one time survey.
- If it is necessary to return to the orevious question, the system should retain the previous entries so that one does have to repeat, especially if its a big table.
- Could have asked questions related to geologist's work environment, not just engineers.
- I WOULD HAVE PREFERRED TO NOT HAVE ANSWERED SOME OF THE QUESTIONS, BECAUSE QUITE FRANKLY I DO NOT KNOW THE ANSWER. FOR EXAMPLE, I DO NOT KNOW WHETHER MATERNITY LEAVE IS EMPLOYER PAID OR EMPLOYEE PAID OR SHARED. THE SURVEY WOULD NOT PERMIT A NON-ANSWER, SO TO COMPLETE THE SURVEY, I SELECTED ONE. GOOD LUCK: GARBAGE IN - GARBAGE OUT.
- Regarding classificatin ratings, there should be a section for those who are not currently working in the field like myself, but are still keeping their professional status. I filled out the classificaion rating where I would probably be now if I was working the Engineering profession. As I stated in the survey I am currently a Substitute Teacher working for various public school divisions. Thank you.
- Good questions overall.
  Some questions to asses motivation level are suggested.
  Experience years may be split between Canadian experience and other countires for better comparison.
  This questionnaire may be improved to capture the Engineer's cross functional activities , which some times are more predominant than direct people supervised
- Set defaults on items that require everything to be checked.

- Survey is geared toward a single employer. It was difficult to answer many questions because I was employed a two different companies. Each job had different responsibilities/duties/benefits/etc so it was difficult to answer the questions correctly. If there was an option to enter the questions for each employer I think the survey could be more accurate.
- Do not have 33 individual question pages in the survey. It takes a long time to complete the survey with a slow internet connection. This would be improved by putting 5 to 10 questions per page.
- Don't see here anything about sitting on advisory commitees or other responsibilities related to industry which are not remunerated for.
- It is difficult to assign correct point values to the various categories because not every job functions can be mapped exactly.

2.3. Personal Results

- Note that I was on maternity leave 7 months of last year.
- Again, same as last year base salary is substantially less than provincial average for the same level of industrial experience, academic background and Professional status with APEGM.
- My answers will likely skew the survey results as I was a masters student and then on maternity leave for 2004. I had no income, nor benefits. I did however have resonsibilities and people under my supervision.
- I am very happy with where I am at because I like the people that I work with\for.
- My companies willingness to pay me what I feel I am worth has instilled a strong sense of loyalty that I have never felt at any other company.
- Position is: Engineering Field Test Technician. Salary is low, but company pays all expenses when travelling, and entire contract is spent travelling.
- I am currently taking my M.Sc. at the University of Manitoba and am recieving a stipend for doing my research. This made some of these questions difficult to answer since they weren't really applicable.
- As of April/05, I have resigned from the surveyed position and have moved onto a managerial role with another industry related company
- Prior to entering the education field, I have spent over 25 years in consulting engineering and roadworks contracting, holding various general management positions and supervising up to 125 employees. The experience acquired far outshadows the current position I hold at Red River College.
- With 5 years as P.Eng. in Canada and 20 more years in my country before that, I am still in lower 25% quartile of your salary survey. I do not know what else to tell you.
- Regarding classificatin ratings, there should be a section for those who are not currently working in the field like myself, but are still keeping their professional

status. I filled out the classificaion rating where I would probably be now if I was working the Engineering profession. As I stated in the survey I am currently a Substitute Teacher working for various public school divisions. Thank you.

- I am currently a graduate student working on my Master's of Science in Civil Engineering at North Carolina State University. Some of the questions on the survey could not be directly answered in my circumstances (Size of Employer organization in Manitoba for example) but were answered as accurately as possible to continue the survey. The 'other benefits' received on the job include full payment of tuition by the university.
- I now have left the corporation and are now self-employed as of September 30, 2005.
- I have taken early retirement due to closure of work facilities at Atomic Energy of Canada lab in Pinawa, Manitoba. I am keeping active by following details of Geoscience applications for Radwaste technology and geophysical applications to mining. I am keeping my communication skills polished by participating in number of APEGM committees, like;PD committee, Environment committee and Geoscience committee.
  The present salary survey questionaire is not applicable to person like me who are waiting for suitable consulting opportunities in semi-retired way of life.
- Under overtime compensation, mine is a combo of paid (a little), time off (usually) & none (when it gets too much). Under paid benefits - 'job sharing' is not a possibility in my job - what answer is right?
- My apologies for this delayed response. I am currently in Japan as part of my research study leave.
- In the summer time I am out Insepcting construction jobs while in the winter I was in the office. Hard to answer some of the questions because of this.
- Being a female, visible minority and inmigrant does make more difficult to be incorporated as a Professional Engineer and working full time in my professsion. This survey is more directed to none professional inmigrants.
- There was no opportunity to indicate the circumstances surrounding my history of maternity leaves over 2003 and 2004. The percentage increase in my base salary is deceiving b/c of my mat-leave in 2003. I went from earning EI only in 03, to working at a base salary of approx $50K for 7 months in 04 and EI for 5 months, which looks like a base salary increase of 30%. My salary information should perhaps be discarded from any averages shown in the report.

2.4. Engineering & Geoscience Professions

- Survey was good. Should update recommended payment for a consulting engineer as it is two years old.
  Overall renumeration for engineers is too low for the amount of schooling, training, and responsibility completed and assumed. With a combination of 5 years undergraduate and 4 years EIT that is 9 years until P.Eng. status. Lawyers requrie a total of 6 (and make much more my borther will be 1-1.5 years out of schoo and will

make 55k engineers with 6 or 7+ years experience make 55-60k, 9 years is close to the training of doctors, many other professions take much less time and require less responsiblity but recieve much more money. From their first job out of school to 30 years down the road when they are senior and experienced, engineers renumeration is less than most professionals of a similar experience level. Something should be done to increase the renumberation engineers recieve to such a level that represents the high level of comitment, expertise and responisbility of an engineer. Starting at 35-40k+ is not right, and it should take 7 years for a typical engineer to reach 60k, that is rediculous, in fact many engineers are recommending to younger people that the profession be avoided depending of financial expectations. Just my thoughts, not sure what you can do but there it is.

- - noticeable difference in female (and minorities) versus male wages where I work (i.e. women are paid less).
  - I feel that the profession as a whole is seriously undervalued and underpaid - partially a result of trying to undercut each other.
- I appreciate the great effort APEGM has expended to enhance the visibility of Professional Engineers, as well as the hard work from the Salary Survey Committee. Manitoba employers need to pay higher salaries to attract and retain qualified Professional Engineers. As the cost of living in Winnipeg rises towards the level of other major cities, such as Calgary, Edmonton, and Waterloo, for example, the salaries should be on-par. Unfortunately, APEGM may not be in a position to adjust salaries; however, this may be a worthwhile venture for APEGM to investigate. I am confident other Professional Engineers also ponder over this matter. Unfortunately, Manitoba will continue to lose highly-qualified candidates to Alberta, Ontario, and B.C., due to Manitoba's low-paying salaries for Professional Engineers.
- paid more for my mba degree than engineering degree which is unfortunate.
  i was paid less running a strutural engineering division of a consulting firm than i am as a manager of a residential condo developer.
- I love my job, it suits me perfectly and give me ample opportunity to develop professionally and personally. Good work environment and support from senior engineers. However, I could be making twice what I do here, in Alberta, BC, or Ontario. Considering I make about the same as a welder or a mechanic (BTW, I used to be a mechanic), I think there is something wrong here. Perhaps APGEM should do a little more to increase the profile and salary of the engineers they represent rather than hound EITs about reports. I advocate doing what the doctors do: have an association to police the profession, and another one to lobby for the profession. Having one single association is clearly not working.
- Well formated survey, easy to follow. Looking forward to the output. It's been a very tough few years in the manufacturing and Aerspace industry. Side note: We as engineers and professionals will have to weigh cost of living and job security as factors in deciding what job we take and where we live around the world. There are always places to make more money, but many of those places are not safe or inhabitable. We need to enjoy the benefits of cold but safe lavish Winnipeg lifestyles.

- There should be a fee schedule established on a province-wide basis dictating what engineer salaries should be. All industries would then need to pay this, similar to doctors, dentists, etc.
- The general public is clueless about the scope and importance of engineering in their everyday lives.
  APEGM should sponsor television commercials which highlight how engineering shapes how well we live. Heat, light, water, food, transportation, housing, technology, communications. - show them something exciting about engineering - the fancy cars they like to drive, the electronic toys they like to have, ie. stuff they can relate to. Only then people will really start to take notice of engineering.
- Standardized base salary structure for varying fields as guideline for industry would be a great idea. Would provide employers and employees with a baseline for understanding value based on experience, education and job function.
- Thank you for doing this. After being a workaholic, I was terminated from 2 jobs in the last 10 years, unfairly & with malice. Once due to finding too many mistakes of my immediate supervisor, one of which cost the company a LOT of money. Once due to political boldness, 'either he goes or I go', on the part of a colleague whose job I was slowly eliminating the need for, due to automation. As an indication that it wasn't just me, both supervisors (and the colleague) were gone within 6 months, but that was of little consolation. On the upside, I'm now far less passionate about Engineering, I'm no longer a workaholic and I have gotten a very good life. I think our profession is falling behind in earning potential & job satisfaction compared with other fields, even trades, and I no longer recommend it. I think our association needs a little more labour oriented, militant,leadership, and to get there we'll need to cooperate more with the technologist's association. Unfortunately that requires a leader of independent means, since the senior members or our association are directly benefitting from the weak bargaining position of the membership, and are in a conflict of interest, in that they cannot objectively help push for higher wages and better working conditions for the junior members when they are the ones profiting from the savings in keeping our own membership's remuneration down in cost. Perhaps it's time to separate the employers from the association? If you think I'm wrong, why not conduct a survey in which you separate the earnings of all members who are also shareholders of their firms and I think the numbers will tell the story. Just filter that out by adding in one question, 'Are you a shareholder or are you otherwise compensated directly based on the annual profit earned in the engineering firm in which you are employed.' However, I doubt that our Association leadership would have the courage to permit it, or would be allowed to by these same influences. Rgds,
- Have 17 years of Operational experience.
  Very dissatisfied with salary and development rate having now achieved an undergraduate engineering degree.
  Plan on now attaining an MBA and getting out of engineering all together, as engineering is far to slow to develop and pays too poorly compared to other sectors of professionals(medicine, business, banking).

I believe that this is because engineers in general undervalue themselves and have created this reality by accepting the current wages and responsibilites they are now cursed with.
Will continue to pursue the PEng but may abandon later when a new career in business or other is achieved after my next degree. Honestly would have taken a different degree had I thought this out better.

- why does the association continue to allow 'non-engineers' to conduct engineering in manitoba? this detracts from the integrity of our profession and puts the public at considerable risk.
- I have not entered a 'true' salary because I object to participating in a salary survey which only serves to perpetuate the incommensurate engineering salaries. APEGM should do a better job of promoting the engineering profession. In particular the discrepancy between engineering salaries and those of other professions should be emphasized to the public.

2.5. General Comments

- I enjoyed reading last year's comments. Very entertaining!
- Thanks. it is interesting!
- It is difficult to remenber the % increase in salary from the previous year due to time lapse.
- No Comments
- good job keep up the good work
- n/a
- None
- Thank you for the opportunity to contribute to the 2005 survey. Keep up the good work.
- Glad to have the opportunity to participate.
  Great format
- No
- None
- Survey still reasonable, not necessarily outstanding.
- none
- Good luck
- I don't think it should be manditory to fill out this survey and I don't understand why I get notice of it every second day or at least once a week.
  In the future if someone does not respond to your emails after the first two maybe

three requests and it is that important for you to hear from them you should call maybe there is a reason that they haven't filled it out.

- N/C
- It is difficult to assign correct point values to the various categories because not every job functions can be mapped exactly.
- It would appear that Provincial Government salaries for engineers is lagging behind the private sector for equivalent work.
- This survey doesn't really seem accepting of those who are as of yet unable to find work in the engineering discipline
- CONSIDER CONSULTANTS WORKING WITH MULTIPLE CONTRACTS. THIS SURVEY IS PRETTY MUCH ORIENTED TO PROFESSIONALS WORKING FOR A SINGLE EMPLOYER
- - I am happy that I am able to complete this survey
- keep up the good work, thanks, (name withheld)

3. List of Tables

3.1. Table 1: Mean Base Salary vs. APEGM Points Equation

Year	Base Salary
2005	*102P + 19.2k*
2004	*89P + 22.7k*
2003	*85P + 24.1k*
2002	*86P + 22.2k*
2001	*84P + 20.6k*
2000	*89P + 18.2k*
1999	*93P + 14.6k*
1998	*87P + 17.0k*
1996	*84P + 15.7k*
1995	*96P + 11.8k*

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

Year of Report	Mean Base Salary @ 200 Pts.	% Incr.	Mean Base Salary @ 400 Pts.	% Incr.	Mean Base Salary @ 600 Pts.	% Incr.	*Cost of Living % Increase
2005	43,583	7.1	61,276	4.9	80,550	5.5	3.3
2004	40,500	-1.5	58,300	0.3	76,100	1.3	0.8
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

3.3. Table 3: Industry Sector Statistics

Industry Sector	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
Aerospace	81	7.5%	67,549	51,000	66,000	75,000	76,222	454
Agriculture/Equipment	24	2.2%	59,783	51,500	62,688	72,500	61,150	473
Agriculture/Food	20	1.8%	69,100	47,490	62,500	80,125	64,251	442
Biomedical	6	0.6%	63,165	46,990	51,000	77,500	63,165	434
Chemical	7	0.6%	90,802	86,259	93,600	98,000	96,540	581
Communications	32	3.0%	73,496	58,000	72,000	78,750	77,254	462
Computer/Software	13	1.2%	63,538	45,000	63,000	85,000	65,769	500
Construction	74	6.8%	81,346	58,775	73,338	84,000	86,259	550
Consulting	208	19.2%	65,011	45,225	58,000	82,000	68,764	464
Electronics	22	2.0%	63,715	47,250	60,000	65,125	64,986	392
Health Care	10	0.9%	77,105	61,838	79,500	84,750	77,305	526
Heavy Electrical	12	1.1%	67,933	59,750	65,000	76,250	74,350	445
Manufacturing	108	10.0%	62,432	44,750	53,000	72,100	67,657	475
Mechanical Equipment	17	1.6%	75,672	50,025	62,000	80,000	75,002	471
Metals - Fabricating	19	1.8%	69,425	50,250	60,000	83,875	74,909	537
Metals - Primary	9	0.8%	83,211	70,000	74,400	92,000	95,944	522
Mineral Exploration	15	1.4%	72,880	56,000	70,000	83,000	76,413	568
Mining	34	3.1%	74,222	60,000	75,000	84,500	78,618	475
Other	79	7.3%	68,895	58,764	68,000	79,000	72,427	511
Petroleum	1	0.1%	NA	NA	NA	NA	NA	NA
Pharmaceutical	7	0.6%	53,429	45,250	48,000	50,250	59,590	396
Research & Development	37	3.4%	70,402	43,831	75,000	90,000	73,559	539
Transportation	78	7.2%	64,064	50,200	66,249	75,893	67,149	477
Transportation Equipment	8	0.7%	79,375	67,250	69,500	80,750	70,000	625
Utilities (Gas, Hydro, Water)	161	14.9%	77,808	60,255	82,000	92,000	80,360	474
Total	**1,082**	**100.0%**						

3.4. Table 4: Industry Sector Statistics (Engineers)

Industry Sector	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
Aerospace	50	7.1%	78,458	66,250	70,350	86,500	82,541	527
Agriculture/Equipment	15	2.1%	68,599	62,688	70,000	74,500	68,294	571
Agriculture/Food	12	1.7%	84,336	69,800	78,934	87,750	75,089	553
Biomedical	3	0.4%	NA	NA	NA	NA	NA	NA
Chemical	6	0.8%	95,686	89,420	93,800	100,000	101,380	634
Communications	24	3.4%	80,300	70,353	74,377	84,250	85,011	509
Computer/Software	8	1.1%	77,000	66,750	77,500	86,250	80,438	556
Construction	63	8.9%	86,387	65,000	75,000	85,000	90,979	589
Consulting	140	19.8%	74,853	55,910	72,000	89,000	79,580	555
Electronics	11	1.6%	78,164	60,500	62,500	75,000	79,455	472
Health Care	9	1.3%	79,672	66,000	83,000	85,000	39,948	556
Heavy Electrical	10	1.4%	73,900	63,500	65,000	78,750	81,600	488
Manufacturing	64	9.0%	74,846	52,250	68,000	85,250	81,393	565
Mechanical Equipment	13	1.8%	90,820	62,000	75,000	80,062	124,251	560
Metals - Fabricating	14	2.0%	78,827	57,750	70,000	89,500	85,734	623
Metals - Primary	7	1.0%	91,271	72,200	87,000	96,500	107,643	550
Mineral Exploration	1	0.1%	NA	NA	NA	NA	NA	NA
Mining	16	2.3%	84,391	74,875	81,500	88,750	88,641	543
Other	63	8.9%	73,156	62,292	70,000	83,282	76,854	547
Petroleum	-	0.0%	NA	NA	NA	NA	NA	NA
Pharmaceutical	5	0.7%	57,900	48,000	49,500	83,141	65,500	456
Research & Development	20	2.8%	84,127	69,500	87,475	92,019	87,927	590
Transportation	20	2.8%	70,359	60,000	70,000	81,000	73,351	535
Transportation Equipment	7	1.0%	80,714	66,500	69,000	86,500	70,000	631
Utilities (Gas, Hydro, Water)	127	17.9%	86,345	73,217	85,000	95,500	89,131	535
Total	**708**	**100.0%**						

3.5. Table 5: Industry Sector Statistics (Geoscientists)

Industry Sector	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
Consulting	5	13.9%	65,600	57,000	57,500	75,000	71,300	495
Manufacturing	1	2.8%	NA	NA	NA	NA	NA	NA
Mineral Explotration	12	33.3%	75,417	58,000	71,500	88,500	79,833	572
Mining	7	19.4%	77,000	64,500	80,000	87,000	83,143	553
Other	3	8.3%	67,252	NA	NA	NA	68,448	619
Research & Development	8	22.2%	81,125	81,000	89,500	92,250	81,375	652
Total	**36**	**100.0%**						

3.6. Table 6: Industry Sector Statistics (EIT/GITs)

Industry Sector	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
Aerospace	31	10.7%	49,954	43,250	47,200	57,500	66,029	335
Agriculture/Equipment	8	2.7%	43,575	34,650	41,000	46,750	46,025	307
Agriculture/Food	8	2.7%	46,245	39,500	46,980	51,000	47,995	276
Biomedical	3	1.0%	46,329	NA	NA	NA	46,329	270
Chemical	1	0.3%	NA	NA	NA	NA	NA	NA
Communications	8	2.7%	53,082	48,688	51,107	55,000	53,983	323
Computer/Software	5	1.7%	42,000	42,000	42,000	45,000	42,299	410
Construction	11	3.8%	52,480	44,500	49,800	59,614	59,224	327
Consulting	63	21.6%	43,093	38,750	42,500	47,150	44,384	257
Electronics	11	3.8%	49,266	40,000	47,000	57,163	50,518	312
Health Care	1	0.3%	NA	NA	NA	NA	NA	NA
Heavy Electrical	2	0.7%	NA	NA	NA	NA	NA	NA
Manufacturing	42	14.4%	45,108	38,625	43,750	47,875	47,304	338
Mechanical Equipment	5	1.7%	42,152	36,000	36,000	50,025	44,952	310
Metals - Fabricating	5	1.7%	43,100	36,000	39,000	50,000	44,600	297
Metals - Primary	2	0.7%	NA	NA	NA	NA	NA	NA
Mineral Exploration	2	0.7%	NA	NA	NA	NA	NA	NA
Mining	9	3.1%	51,367	49,800	52,500	60,000	55,639	282
Other	12	4.1%	51,930	37,105	55,060	61,250	54,724	305
Petroleum	1	0.3%	NA	NA	NA	NA	NA	NA
Pharmaceutical	2	0.7%	NA	NA	NA	NA	NA	NA
Research & Development	9	3.1%	30,370	18,200	22,000	39,000	34,681	326
Transportation	17	5.8%	41,475	42,000	42,500	44,120	44,895	271
Transportation Equipment	1	0.3%	NA	NA	NA	NA	NA	NA
Utilities (Gas, Hydro, Water)	32	11.0%	46,700	41,921	44,750	52,512	48,120	249
Total	**291**	**100.0%**						

3.7. Table 7: Job Function Statistics

Principal Job Function	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
Administrative Services	15	1%	91,276	65,000	89,000	104,750	94,909	681
Computer Services	7	1%	65,039	61,500	66,000	69,500	68,753	473
Consulting	123	11%	66,605	46,000	58,600	80,000	70,116	461
Design	210	19%	58,888	44,000	55,000	70,000	60,889	399
Maintenance/Tech Supp.	63	6%	59,628	44,910	58,000	70,500	69,900	388
Management	200	19%	92,798	71,850	84,000	102,000	95,696	656
Marketing/Sales	34	3%	70,826	58,500	73,193	79,250	79,538	454
Mineral Exploration	8	1%	71,525	61,050	73,500	88,500	75,650	585
Planning	55	5%	84,906	60,128	73,825	85,500	87,597	453
Production	38	4%	60,103	48,250	59,264	69,200	66,931	389
Project Management	169	16%	68,677	55,500	67,860	83,500	72,840	486
Quality Assurance	22	2%	60,250	50,375	58,300	69,750	61,932	446
R&D	53	5%	57,837	42,000	55,300	83,000	61,322	427
Software Dev.	20	2%	62,333	51,762	62,788	75,625	63,646	383
Teaching	20	2%	73,490	61,937	65,833	87,250	73,740	589
Other	44	4%	61,545	52,800	60,750	72,910	64,471	411
Total	**1081**	**100%**						

3.8. Table 8: Year of Graduation Statistics

Year of Graduation	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
1960-1964	17	2%	103,860	67,000	77,000	110,000	105,031	654
1965-1969	25	2%	84,366	70,000	80,500	98,000	91,892	650
1970	16	1%	95,737	75,750	99,638	114,750	99,456	635
1971	16	1%	99,438	82,000	90,500	102,750	104,603	659
1972	20	2%	75,938	71,750	79,375	85,000	76,973	602
1973	23	2%	97,251	81,500	91,962	101,500	101,346	652
1974	21	2%	85,500	80,000	85,000	92,332	91,955	619
1975	19	2%	88,497	80,983	88,800	92,185	91,795	606
1976	22	2%	84,862	72,750	86,000	90,594	90,650	636
1977	11	1%	85,380	76,500	84,000	91,500	94,815	668
1978	16	1%	85,171	63,250	81,183	97,750	76,968	667
1979	22	2%	90,831	74,681	81,950	89,375	92,898	661
1980	20	2%	83,784	71,140	79,800	90,000	90,678	629
1981	19	2%	81,162	64,000	69,000	98,000	79,508	571
1982	24	2%	77,264	65,000	75,877	90,250	83,115	574
1983	30	3%	84,247	74,469	89,300	95,750	88,148	641
1984	27	3%	78,004	67,500	73,675	90,500	86,775	580
1985	39	4%	80,489	67,500	78,000	87,000	85,796	553
1986	35	3%	75,089	61,500	72,000	87,098	80,501	536
1987	28	3%	79,981	70,750	78,750	89,775	84,239	582
1988	28	3%	80,880	66,750	75,000	86,000	84,902	523
1989	24	2%	84,525	63,608	75,000	86,250	92,070	570
1990	27	3%	86,904	65,500	79,114	98,000	89,460	575
1991	31	3%	66,594	58,350	69,000	79,250	70,313	449
1992	31	3%	80,514	65,750	74,000	85,000	85,566	504
1993	29	3%	69,819	60,000	68,000	81,000	71,943	467
1994	44	4%	65,402	55,297	67,250	73,206	68,704	468
1995	29	3%	63,138	53,000	61,500	70,000	63,115	471
1996	32	3%	63,900	52,250	59,400	70,000	67,162	428
1997	38	4%	57,805	48,500	54,411	68,996	59,469	387
1998	38	4%	57,337	46,875	56,500	67,000	60,105	395
1999	33	3%	55,689	50,000	55,640	60,000	58,543	359
2000	40	4%	52,321	45,900	50,750	60,000	55,211	342
2001	47	4%	47,614	40,350	46,932	55,210	49,956	296
2002	58	5%	45,499	40,380	44,450	50,000	47,583	285
2003	52	5%	38,441	35,000	40,495	44,625	40,395	262
2004-2005	47	4%	40,273	37,038	41,000	42,711	41,887	236
Total	**1078**	**100%**						

3.9. Table 9: Year of Graduation Statistics (Engineers)

Year of Graduation	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
1960-1964	16	2%	108,476	69,250	80,000	112,636	109,720	652
1965-1969	22	3%	84,257	68,500	81,031	96,000	92,718	656
1970	16	2%	95,737	75,750	99,638	114,750	99,456	635
1971	13	2%	104,385	82,000	92,000	105,000	110,743	648
1972	19	3%	75,303	71,500	79,000	85,000	76,392	602
1973	23	3%	97,251	81,500	91,962	101,500	101,346	652
1974	20	3%	87,175	80,000	85,000	92,649	93,952	615
1975	18	2%	88,358	80,975	87,900	92,278	91,839	607
1976	19	3%	85,735	73,500	88,000	91,896	92,437	654
1977	11	1%	85,380	76,500	84,000	91,500	94,815	668
1978	14	2%	90,552	78,950	83,000	109,250	80,821	689
1979	21	3%	90,966	74,000	81,900	89,500	93,132	654
1980	19	3%	83,141	71,049	78,000	89,500	90,398	630
1981	15	2%	76,188	64,000	68,700	91,190	72,721	547
1982	22	3%	77,878	65,750	75,877	89,313	83,852	579
1983	28	4%	84,909	74,608	89,300	95,250	87,945	655
1984	24	3%	81,142	70,000	76,350	93,500	90,051	603
1985	34	5%	83,604	69,250	80,250	89,750	89,321	579
1986	29	4%	78,112	64,792	74,000	89,000	83,761	548
1987	26	3%	79,557	70,250	76,535	89,275	83,758	585
1988	23	3%	84,445	68,500	76,000	86,023	88,777	529
1989	23	3%	85,699	65,688	75,000	86,500	93,421	573
1990	25	3%	89,257	66,400	82,000	100,000	91,657	587
1991	26	3%	70,101	63,000	74,750	82,250	74,458	470
1992	27	4%	81,627	65,750	74,000	87,000	85,798	508
1993	26	3%	72,245	61,438	69,031	83,250	74,568	470
1994	38	5%	66,871	55,875	67,800	74,706	70,694	485
1995	27	4%	63,296	54,000	61,500	70,000	63,272	462
1996	24	3%	65,438	53,625	61,000	70,000	68,714	443
1997	28	4%	61,630	51,000	58,550	71,625	62,461	395
1998	23	3%	62,557	54,500	63,500	68,407	66,099	447
1999	24	3%	55,754	50,000	55,120	60,000	58,757	355
2000	21	3%	55,119	50,000	55,000	61,000	58,779	394
2001	5	1%	64,251	60,000	60,255	65,000	71,251	309
Total	**749**	**100%**						

3.10. Table 10: Year of Graduation Statistics (Geoscientists)

Year of Graduation	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
1961-1969	4	11%	71,375	NA	NA	NA	71,875	624
1970-1979	11	31%	72,818	62,500	78,000	88,500	73,273	632
1980-1989	18	50%	78,570	58,125	77,500	90,750	85,019	557
1990-1996	3	8%	58,333	NA	NA	NA	63,333	409
Total	**36**	**100%**						

3.11. Table 11: Year of Graduation Statistics (EIT/GITs)

Year of Graduation	No. Reported	%	Mean Base Salary	Lower Quartile	Median	Upper Quartile	Mean Total Income	Mean Points
1982-95	33	11%	56,872	47,000	57,000	66,406	59,521	411
1996	7	2%	59,614	49,150	56,000	70,000	61,436	373
1997	10	3%	47,095	40,500	43,750	54,375	51,094	363
1998	15	5%	49,333	42,750	46,000	54,500	50,913	316
1999	9	3%	55,516	45,000	56,000	57,000	57,971	370
2000	19	7%	49,228	44,000	46,987	57,500	51,268	284
2001	42	14%	45,633	40,000	45,980	52,429	47,421	295
2002	57	20%	45,328	40,007	44,400	50,000	47,449	285
2003	52	18%	38,441	35,000	40,495	44,625	40,395	262
2004-05	47	16%	40,273	37,038	41,000	42,711	41,887	236
Total	**291**	**100%**						

3.12. Table 12: Average Base Salary for Post Graduate or Other Supplemental Education

Education	Respondents	Mean Base Salary	Mean APEGM Points
One Eng/Geo Degree Only	675	68,814	465
Supplemental Education			
Diploma or Other	94	69,245	496
M.Eng. Or M.Sc.	177	69,797	490
2nd B.Sc. (Eng. Or Other)	35	59,501	448
Multiple Supplemental Categories	8	92,216	515
Ph.D.	44	74,611	590
MBA	36	84,429	578
Multiple Supplemental Categories (inc. MBA)	7	103,414	747
Total	**1,076**		

3.13. Table 13: Paid Benefits

Benefit	Employer Pays	Shared Cost	Employee Pays	Not Provided / Don't Know
Life insurance	31.3%	46.2%	11.4%	11.0%
Pension Plan	16.5%	54.6%	3.6%	25.3%
Short Term Disability	47.0%	35.0%	7.1%	11.0%
Long Term Disability	39.5%	39.8%	12.3%	8.4%
Extended Health Plan	34.0%	45.8%	11.3%	8.9%
Drug Plan	35.8%	47.0%	7.8%	9.4%
Dental Plan	37.0%	50.8%	5.7%	6.6%
RRSP	4.1%	26.4%	19.7%	49.9%
Stock Purchase	1.6%	9.7%	9.6%	79.1%
Vehicle	9.1%	6.3%	5.7%	78.9%
Liability Insurance	40.9%	4.1%	3.4%	51.5%
Day Care	0.5%	1.1%	4.7%	93.7%
Continuing Education	41.7%	27.8%	4.8%	25.7%
Training	72.7%	12.3%	2.6%	12.3%
APEGM Dues	58.1%	2.3%	26.6%	12.9%
Technical Society Dues	43.0%	4.7%	23.1%	29.2%
Maternity Leave	47.1%	13.4%	5.1%	34.4%
Paternity Leave	43.6%	13.4%	5.8%	37.1%

3.14. Table 14: Employment Benefits

Benefit	Employer Provides	Does Not Provide or NA
Savings Plan	20.5%	79.5%
Profit Sharing	26.0%	74.0%
Productivity Incentive	19.0%	81.0%
Leave of Absence	64.7%	35.3%
Flexible Work Hours	70.0%	30.0%
Job Sharing	22.7%	77.3%

3.15. Table 15: Average Classification Rating Results

Classification Rating	All	Engineers	Geoscientists	EITs/GITs
A-Duties	93	113	121	36
B-Education	70	70	76	68
C-Experience	96	113	128	48
D-Recommendations	97	108	102	67
E-Supervision Received	71	77	79	53
F-Leadership Authority	32	39	38	12
G-Supervision Scope	9	11	8	3
H-Use of Seal	6	9	7	0
I-Job Environment	3	2	5	3
J-Absence from Base of Operations	2	2	4	2
K- Accident and Health Hazards	5	4	7	10
Total	**482**	**550**	**575**	**303**

3.16. Table 16: Mean Base Salary for Different APEGM Point Ranges by Gender (Males)

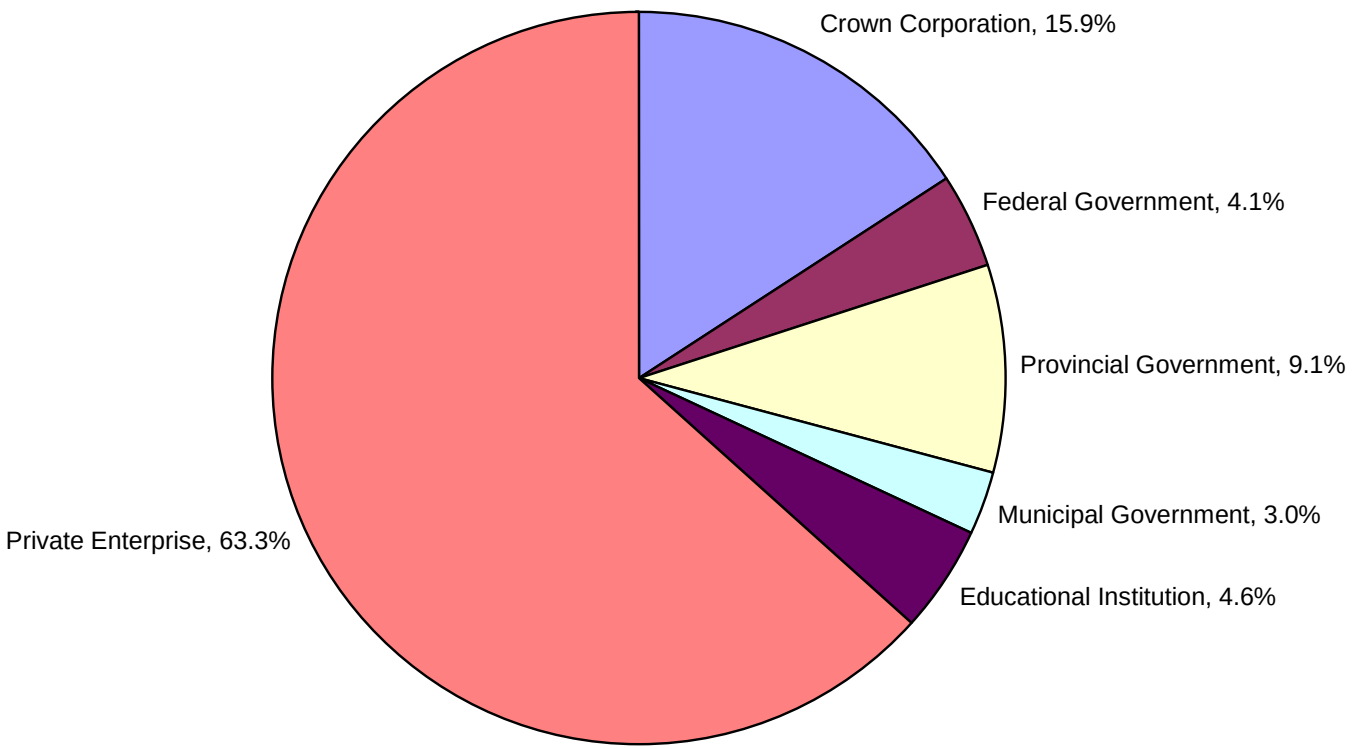
Mean Base Salary	*APEGM Point Ranges*	*No. of Participants*
$35,092	199 or Less	15
$43,877	200-299	145
$55,853	300-399	154
$66,663	400-499	177
$78,071	500-599	180
$94,813	600+	285

3.17. Table 17: Mean Base Salary for Different APEGM Point Ranges by Gender (Females)

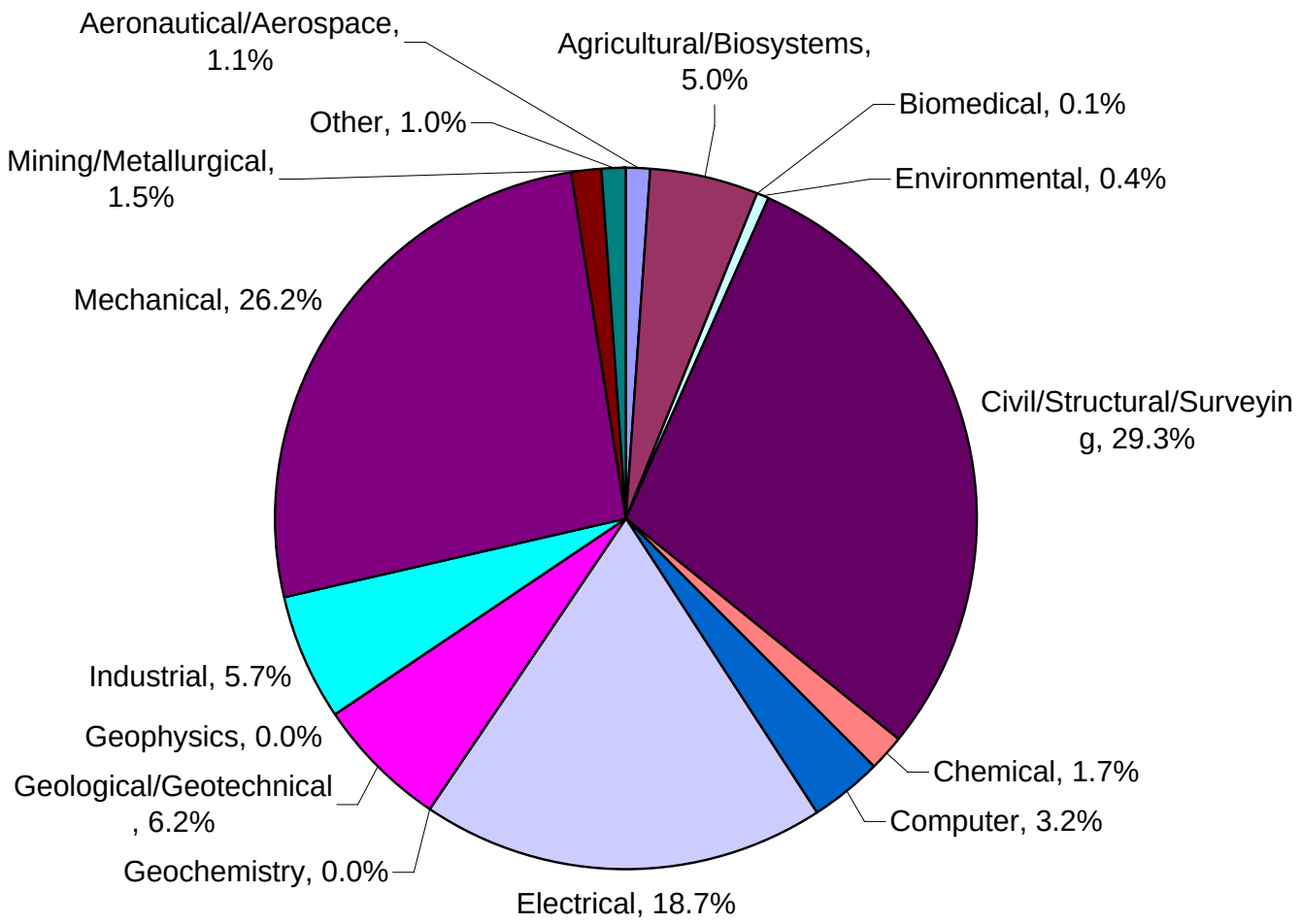
Mean Base Salary	*APEGM Point Ranges*	*# of Participants*
$39,475	199 or Less	8
$46,452	200-299	41
$48,741	300-399	63
$65,879	400-499	25
$73,521	500-599	12
$79,046	600+	7

4. List of Figures

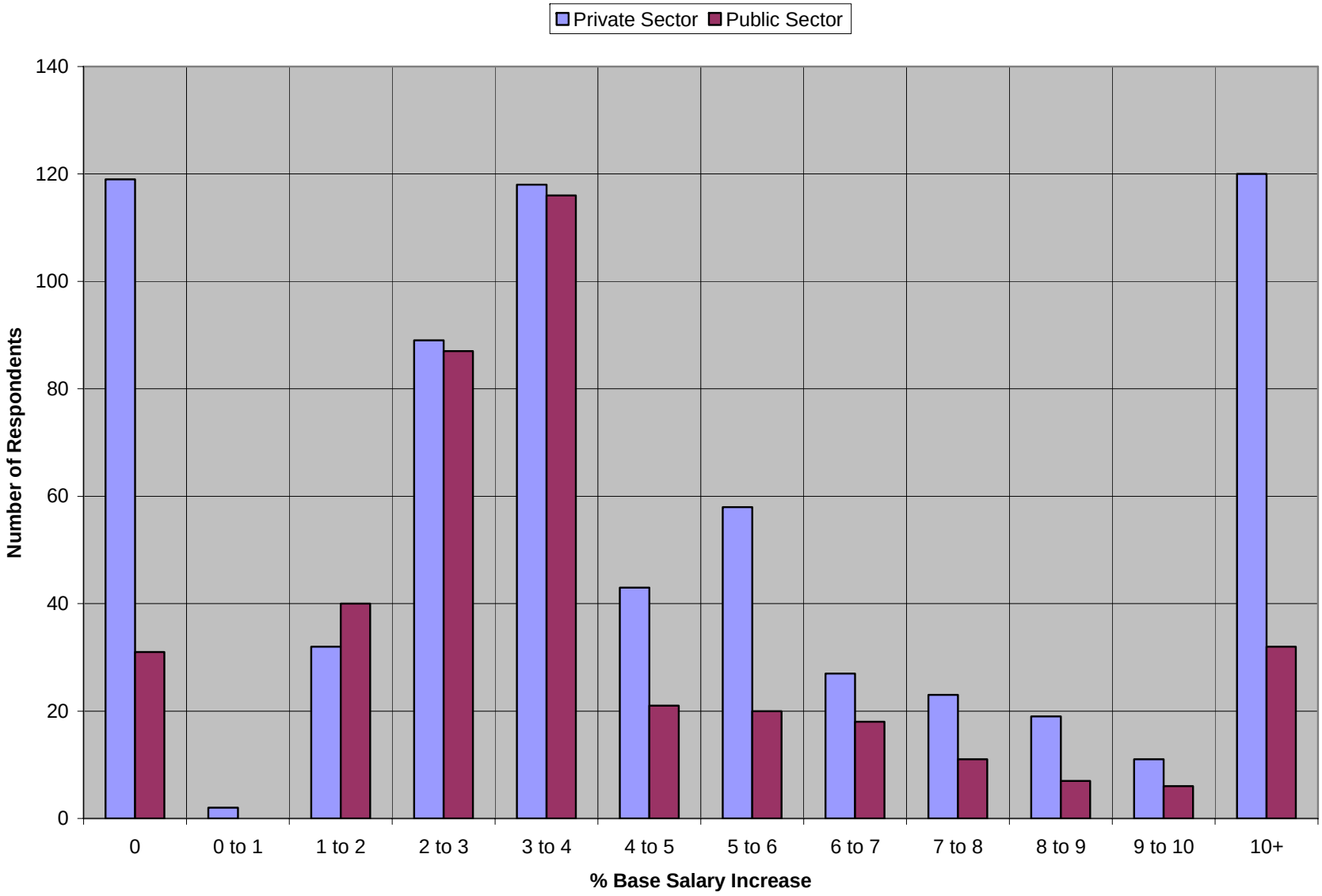
4.1. Figure 1: Response by Employment Sector



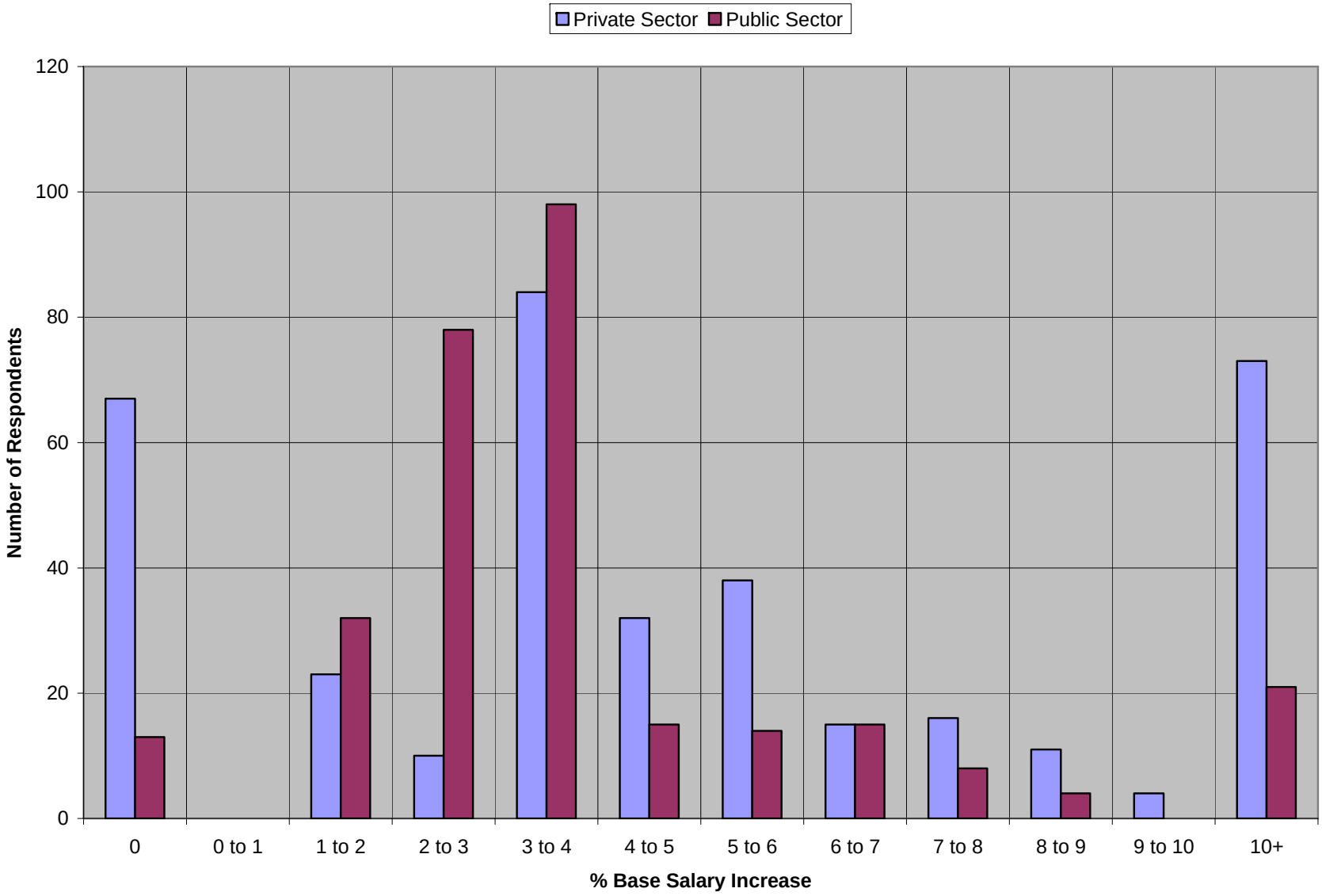
4.2. Figure 2: Responses by Discipline



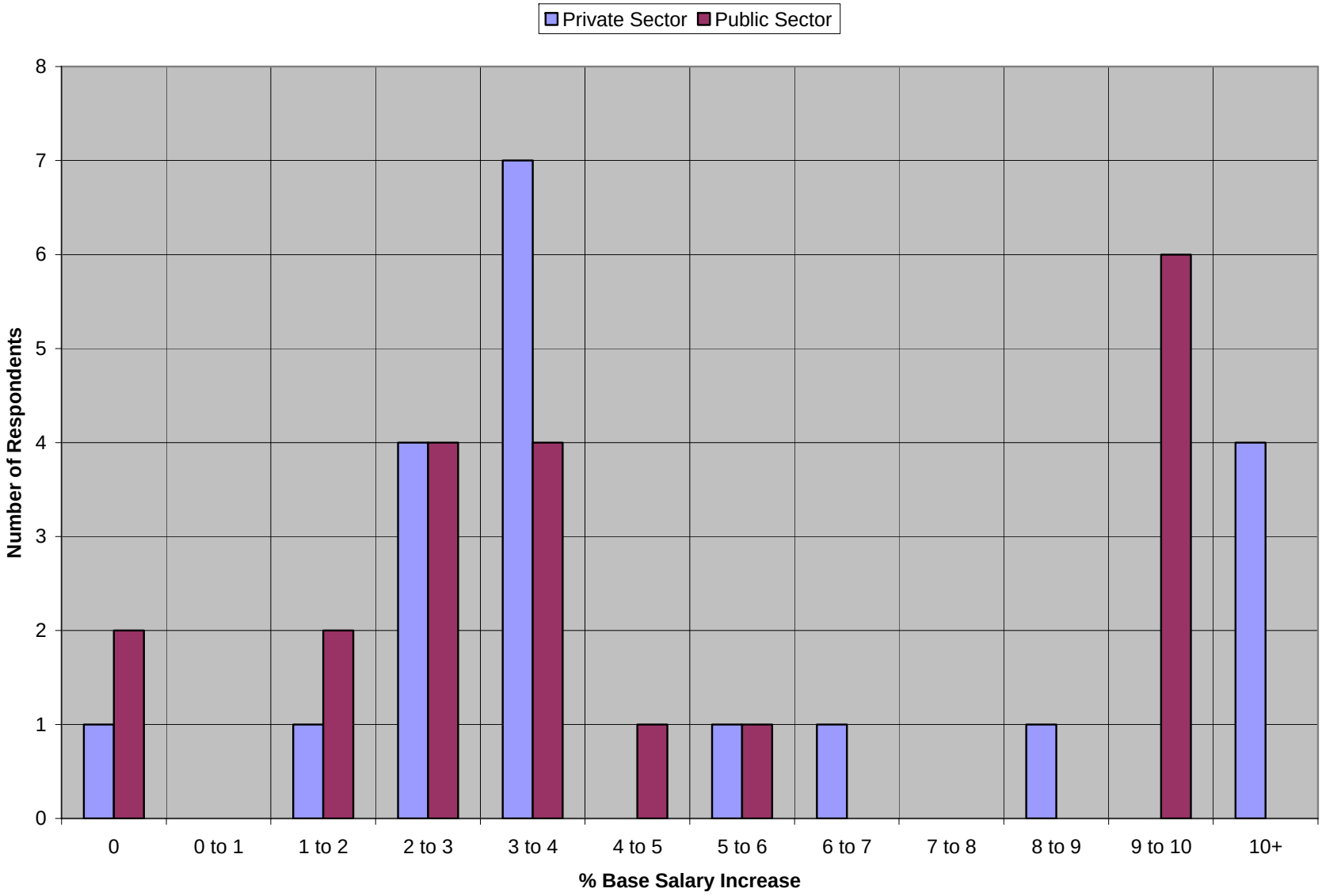
4.3. Figure 3: % Base Salary Increase for Public and Private Sectors



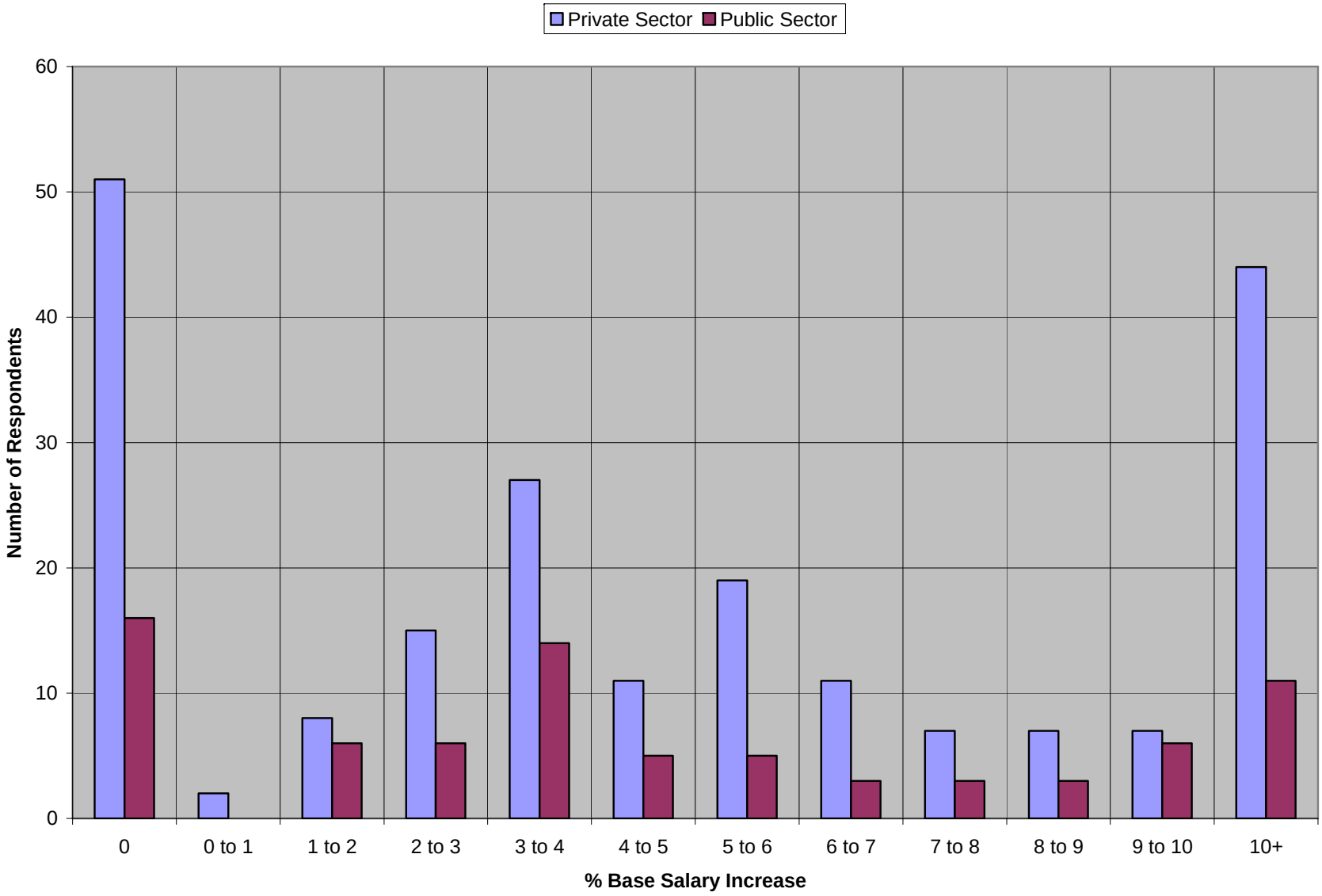
4.4. Figure 4: % Base Salary Increase for Public and Private Sectors (Engineers)



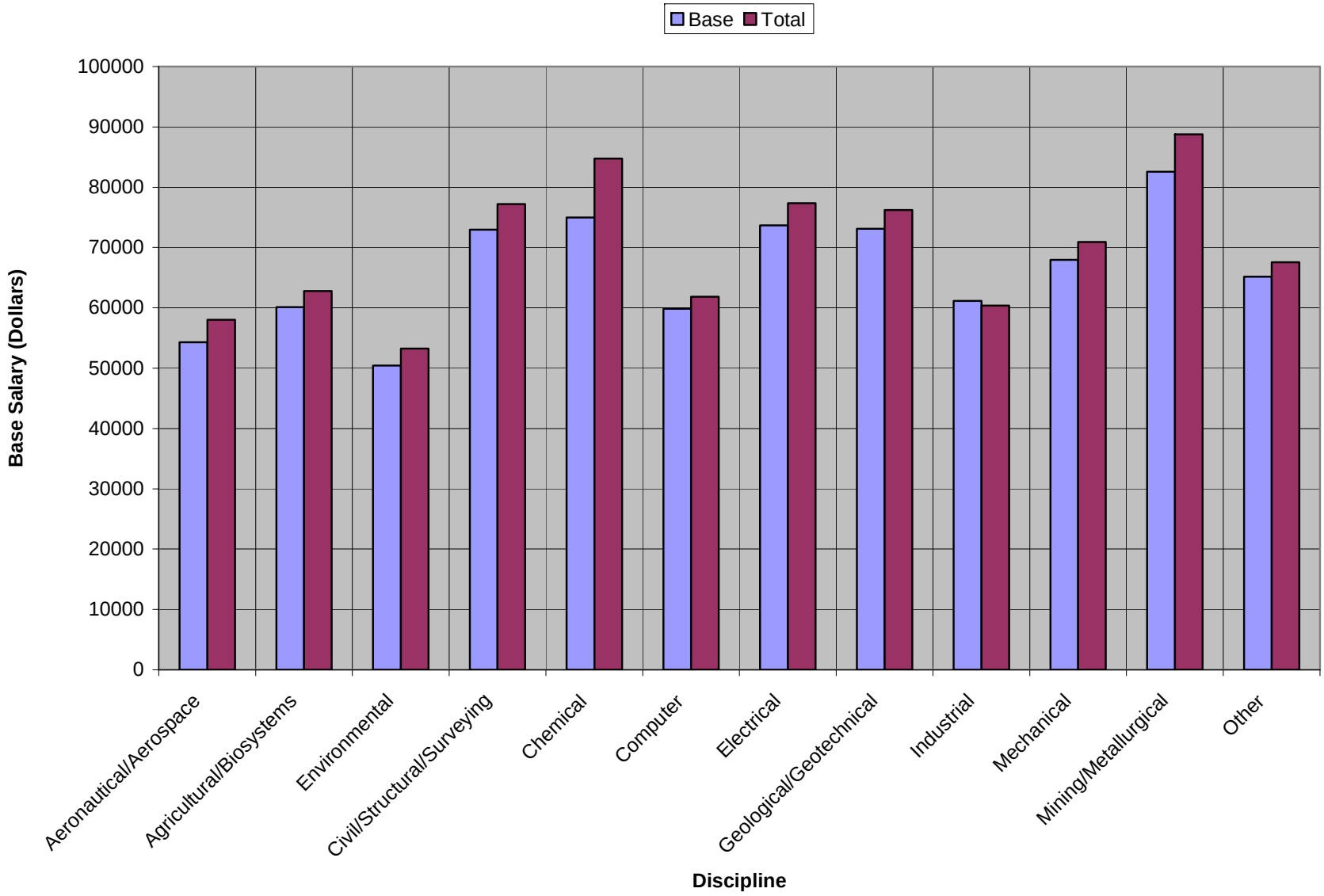
4.5. Figure 5: % Base Salary Increase for Public and Private Sectors (Geoscientists)



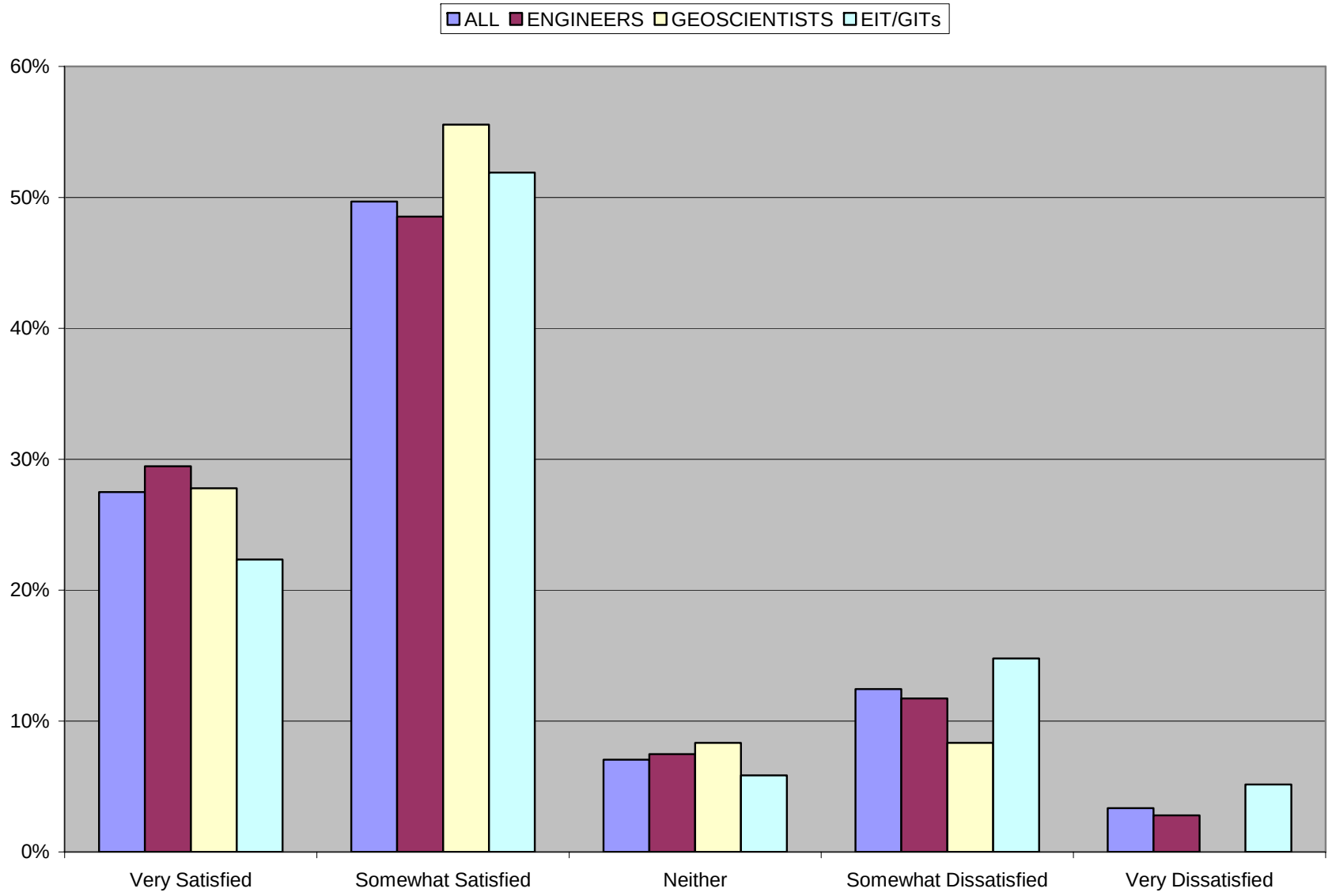
4.6. Figure 6: % Base Salary Increase for Public and Private Sectors (EIT/GITs)



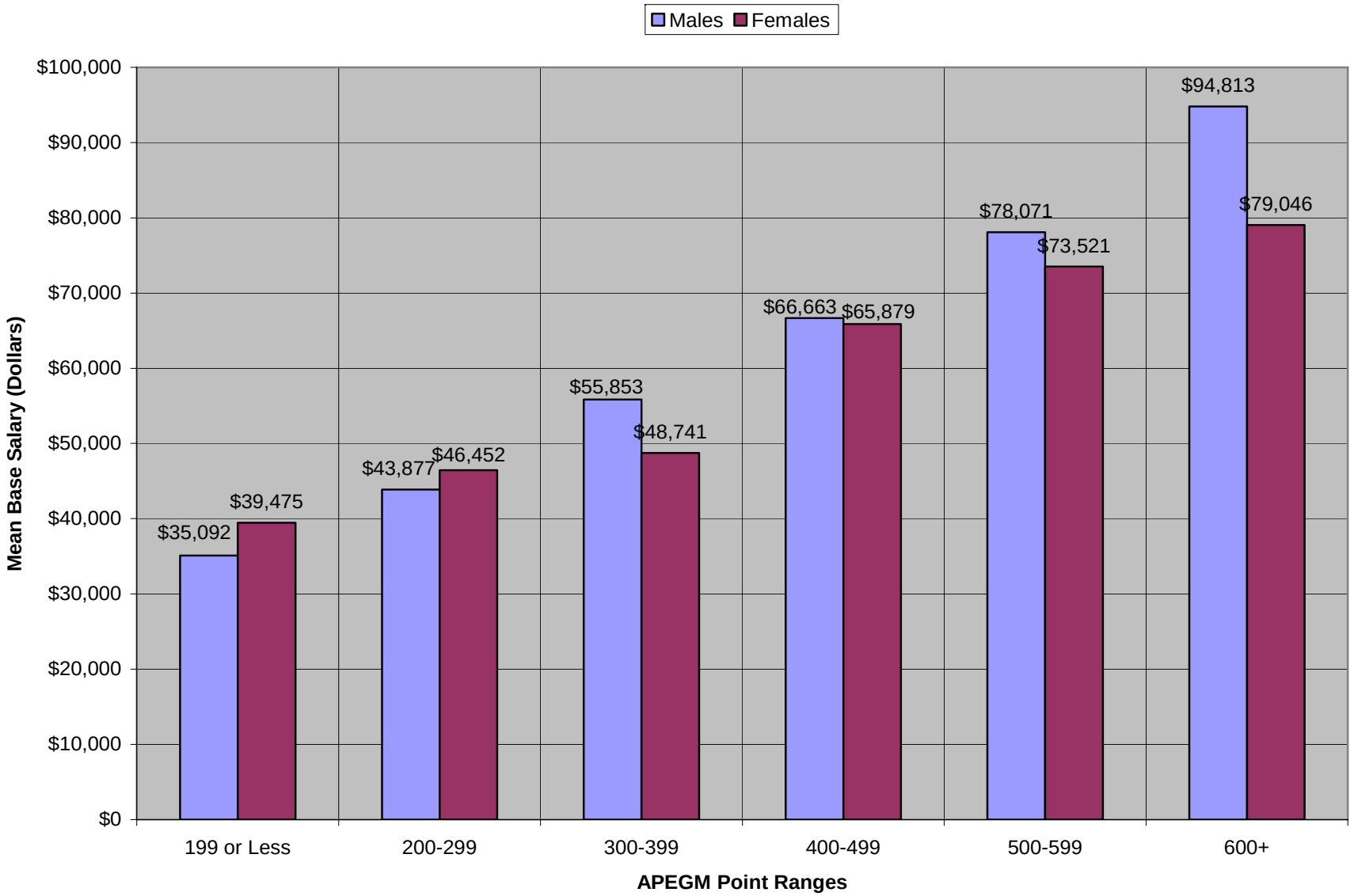
4.7. Figure 7: Average Base Salary and Total Salary (Bonus, Overtime, Commissions) by Discipline



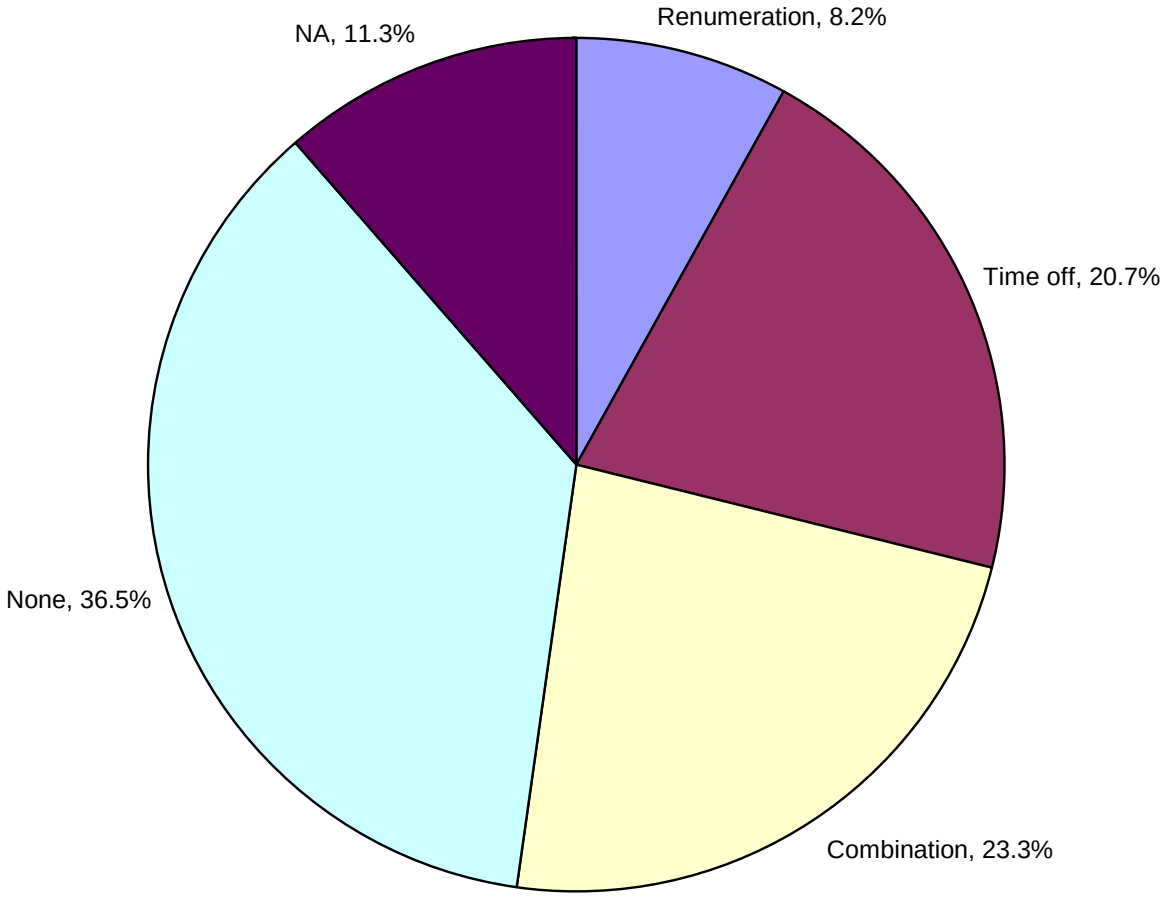
4.8. Figure 8: Overall Satisfaction (All, Engineers, Geoscientists, EIT/GITs)



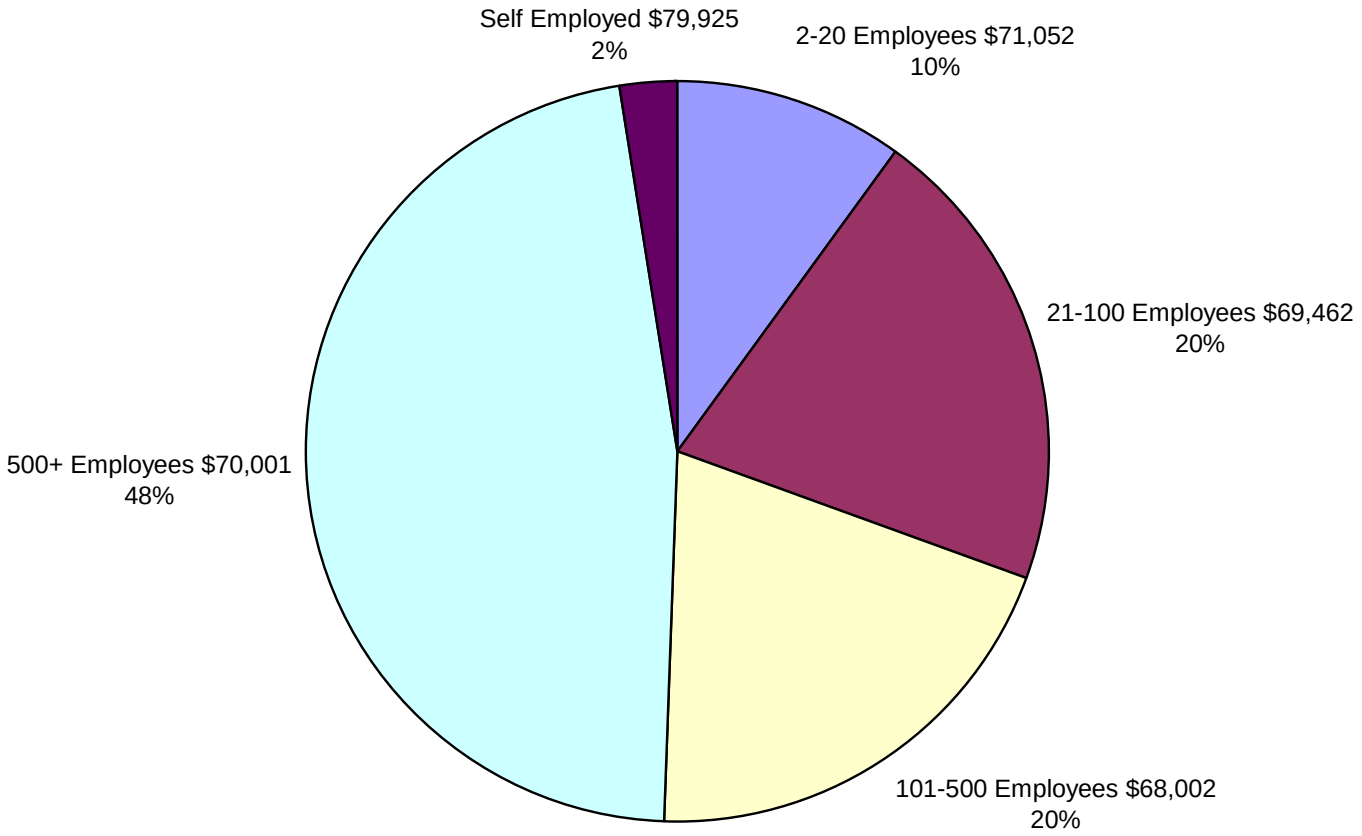
4.9. Figure 9: Mean Base Salary for Different APEGM Point Ranges by Gender



4.10. Figure 10: Compensation for Overtime



4.11. Figure 11: Size of Organization



4.12. Figure 12: Principal Work Location