JUNE 2011 PROFESSIONAL ENGINEER REMUNERATION SURVEY SUMMARY REPORT

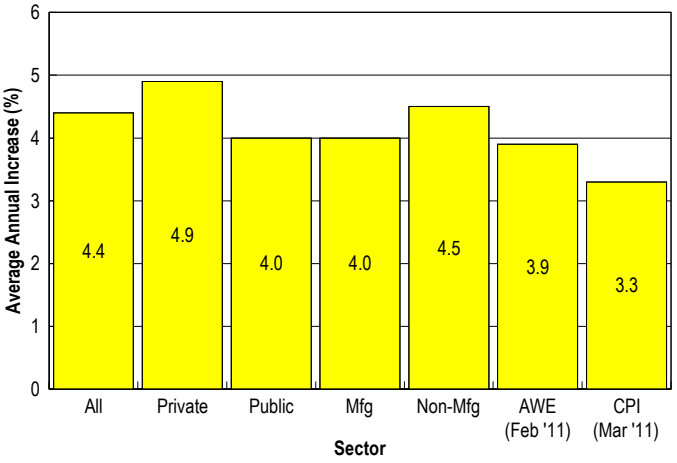
PRIVATE SECTOR SALARIES CONTINUE TO RECOVER

The impact of the slowdown in economic activity precipitated by the global financial crisis of 2008 has diminished significantly according to the results of the June 2011 APESMA / Engineers Australia Professional Engineer Remuneration Survey.

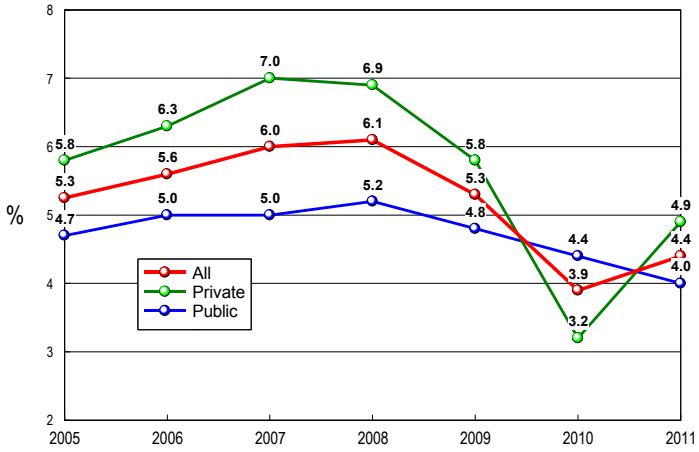
The survey, conducted over March this year, reported an average annual increase in professional engineer salaries of 4.4% across all sectors combined. The result compares with an annual increase in salaries of 3.9% reported in June 2010.

The Australian Bureau of Statistics Consumer Price Index rose by 3.3% in the 12 months to the end of March 2011 whilst the Average Weekly Ordinary Time Earnings series rose by 3.9% to the end of February 2011.

GRAPH 1 - ANNUAL SALARY INCREASES BY EMPLOYMENT SECTOR VS ECONOMIC INDICATORS



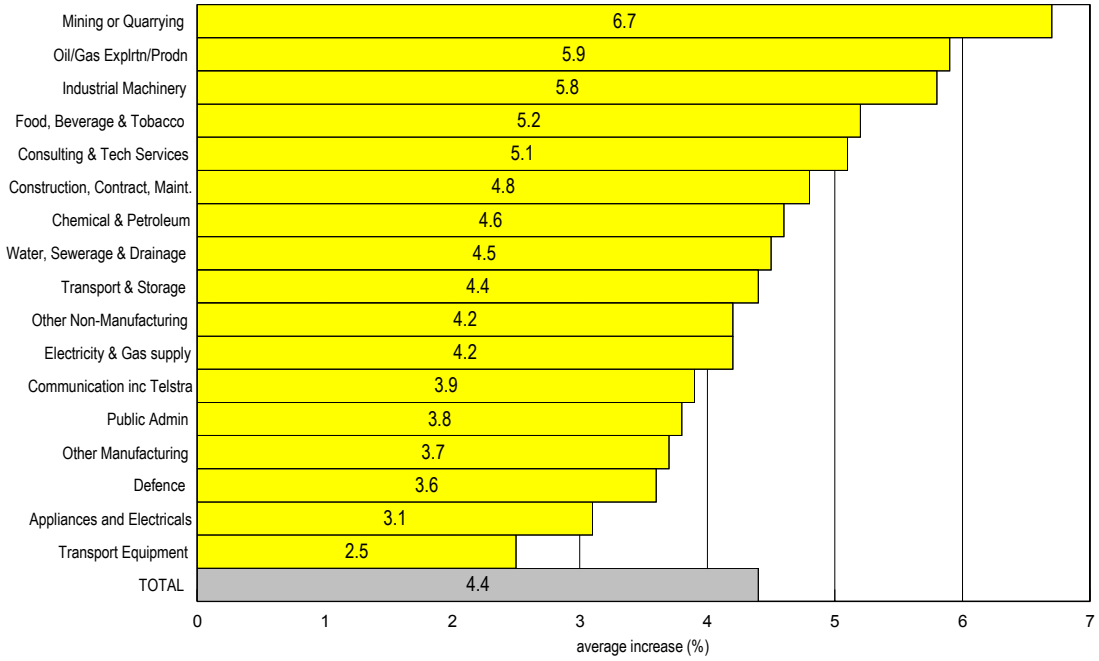
GRAPH 2 – ANNUAL SALARY INCREASES 2005-2011 – JUNE REPORTS



Graph 2 shows a recovery in the rate of increase in private sector salaries with annual salaries in the sector rising much more quickly than a year earlier, 4.9% (2011) v 3.2% (2010).

The average rate of increase in salaries of 4% reported amongst public sector employees was in line with the level of increase reported of recent years for the sector.

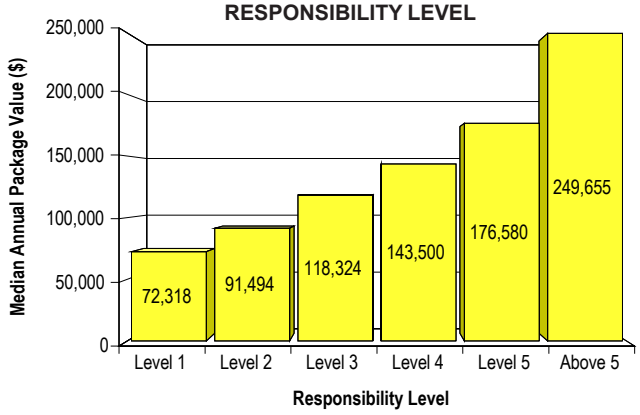
GRAPH 3 - AVERAGE ANNUAL SALARY INCREASES BY INDUSTRY



The result reflects the greater reliance on industrial instruments to deliver salary increases. Remuneration of private sector employees could be seen to be generally more reactive to short-run economic conditions within a largely deregulated salary market.

The average annual increases reported by specific industry were as shown in Graph 3.

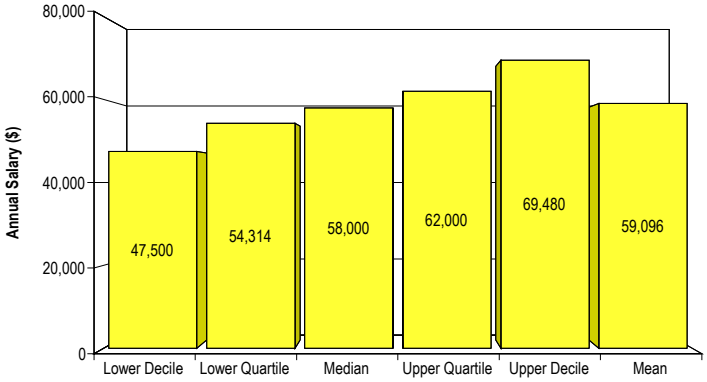
GRAPH 4 – MEDIAN TOTAL PACKAGE BY RESPONSIBILITY LEVEL



Graph 4 illustrates the relationship between remuneration and responsibility level, and shows respondents above Level 5 earning more than three times the average total package incomes of those at Level 1.

Total package is defined as the sum of base salary, employer superannuation contributions, value of employer-provided motor vehicles, performance pay, and the value of any other cash and non-cash benefits provided.

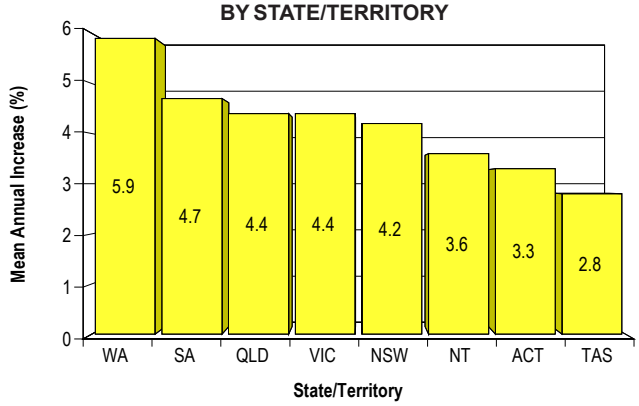
GRAPH 5 – GRADUATE COMMENCING SALARIES



Graph 5 shows graduate engineer respondents commencing work during the last twelve months earned a median base salary of $58,000 on commencement.

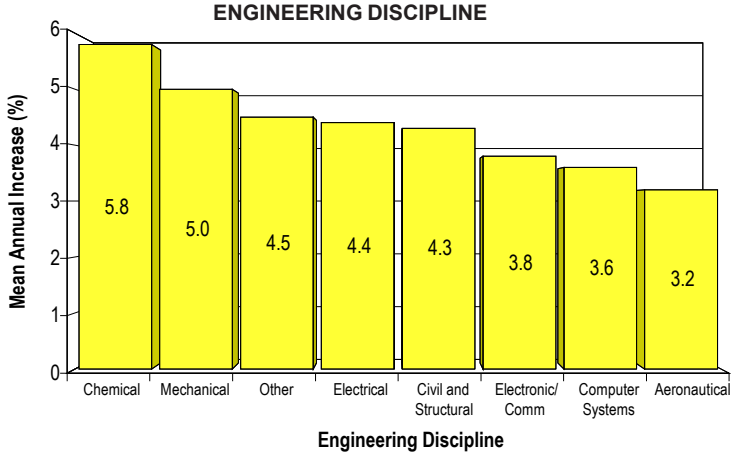
The amounts shown for graduates do not include compulsory employer superannuation contributions.

GRAPH 6 – MEAN ANNUAL INCREASE BY STATE/TERRITORY



Graph 6 shows that respondents located in Western Australia recorded the highest increases.

GRAPH 7 – MEAN ANNUAL INCREASE BY ENGINEERING DISCIPLINE



Graph 7 shows that based on engineering discipline, chemical engineers reported the highest average increase in salaries of 5.8%, whilst aeronautical engineers reported the lowest average increases in salary of 3.2%.

TABLE 1 – MEDIAN BASE SALARY & TOTAL PACKAGE – ALL SECTORS – ALL FULL-TIME RESPONDENTS

	Level 1		Level 2		Level 3		Level 4		Level 5		Above Level 5	
	BASE	TOTAL	BASE	TOTAL	BASE	TOTAL	BASE	TOTAL	BASE	TOTAL	BASE	TOTAL
	Median	Median	Median	Median	Median	Median	Median	Median	Median	Median	Median	Median
Consulting & Tech Services	60,000	71,366	73,176	89,236	95,200	108,618	126,150	147,491	151,188	177,189	220,000	241,281
Construction, Contract, Maint.	57,974	66,492	76,788	101,281	97,490	121,244	117,670	145,824	155,000	189,837	242,000	336,329
Mining or Quarrying	79,500	86,655	105,000	135,111	120,000	147,150	149,000	181,774	185,000	248,066	280,000	403,484
Oil/Gas Explrtn/Prodn	71,962	84,782	87,500	97,096	137,500	168,850	150,000	185,850	200,000	251,790	240,000	353,160
Electricity & Gas supply	67,750	78,639	95,290	109,119	105,603	127,772	135,000	156,589	160,000	202,495	250,000	317,427
Water, Sewerage & Drainage	65,000	77,942	73,100	85,130	90,071	108,800	110,000	129,246	136,000	174,127	136,500	175,188
Communication inc Telstra	60,000	66,221	81,491	112,459	99,151	111,725	119,000	135,051	125,000	165,462	240,000	318,920
Defence	58,000	65,845	81,140	90,346	99,000	110,550	121,000	135,842	130,000	149,904	.	.
Public Admin	58,381	65,005	71,320	80,169	87,870	110,087	108,000	130,156	128,000	153,985	165,000	208,402
Transport & Storage	56,729	62,520	82,000	94,319	95,000	110,198	131,276	146,235	159,000	197,801	198,500	237,601
Education	.	.	70,000	77,942	80,000	89,077	95,000	104,500	140,000	161,904	162,500	216,492
Other Non-Manufacturing	59,438	65,082	69,000	84,186	88,500	96,900	122,000	139,332	150,000	181,354	150,000	213,300
Food, Beverage & Tobacco	.	.	70,250	78,221	115,000	134,780	117,164	149,975	150,000	173,310	.	.
Wood and Paper Products	.	.	.	.	90,500	123,028	115,000	155,671	135,000	158,922	.	.
Chemical & Petroleum	57,000	65,534	.	.	110,665	146,309	124,375	154,909	171,830	217,010	.	.
Non-Metallic Minerals	.	.	80,760	114,129	98,450	123,642	133,000	159,467	170,000	232,570	.	.
Basic Metal Products	.	.	85,650	95,446	108,000	129,710	122,500	173,365	159,000	210,619	.	.
Steel Production	61,500	71,273	75,000	88,473	95,642	132,166	87,500	117,456	224,593	284,663	.	.
Fabricated Metal	55,000	59,950	.	.	84,500	110,141	110,000	151,131	141,746	185,368	.	.
Transport Equipment	58,000	63,220	90,122	115,491	97,075	113,886	102,000	123,012	109,000	154,233	.	.
Appliances and Electricals	48,000	52,320	.	.	91,743	100,000	115,000	147,693	125,800	195,780	194,000	222,033
Industrial Machinery	70,000	92,242	70,000	99,102	78,800	106,403	99,250	121,640	130,000	230,875	150,000	224,895
Other Manufacturing	.	.	68,237	74,378	108,950	122,866	86,773	95,348	149,500	187,872	.	.
TOTAL	60,509	71,883	77,500	91,494	98,000	118,324	120,000	143,515	145,122	176,650	212,500	249,655

TABLE 2 – BASE SALARY & TOTAL PACKAGE BY YEARS OF EXPERIENCE – ALL SECTORS – ALL FULL-TIME RESPONDENTS

	BASE SALARY							TOTAL PACKAGE					
	N	Lower Decile	Lower Quartile	Median	Upper Quartile	Upper Decile	Mean	Lower Decile	Lower Quartile	Median	Upper Quartile	Upper Decile	Mean
Less than 1	18	45,000	52,250	58,193	61,000	74,000	58,164	49,050	59,950	65,963	70,850	84,693	67,201
1 to less than 2	52	55,000	56,482	60,200	69,471	75,000	63,590	59,950	63,220	73,138	79,757	95,291	75,430
2 to less than 3	33	55,000	60,500	68,000	77,000	87,000	69,924	64,325	70,850	82,405	90,577	116,542	85,704
3 to less than 4	33	60,733	68,000	80,000	96,000	114,000	83,577	71,103	80,660	99,000	115,800	156,535	104,525
4 to less than 5	39	57,948	67,870	73,000	87,000	125,000	80,817	69,215	77,695	84,202	105,244	144,697	96,656
5 to less than 6	53	69,160	77,000	84,570	100,000	116,000	89,578	79,056	87,200	101,043	123,522	148,866	110,434
6 to less than 7	55	69,555	78,000	86,000	105,000	118,500	97,018	78,802	89,236	102,438	118,728	155,884	114,807
7 to less than 8	52	80,000	85,210	95,000	107,750	120,000	98,740	91,304	103,087	113,650	131,795	165,963	121,108
8 to less than 9	45	72,000	85,634	98,000	107,000	137,500	99,319	82,840	96,001	109,000	137,340	161,459	119,461
9 to less than 10	50	73,000	85,000	95,866	120,000	141,782	103,554	84,638	100,620	118,869	149,305	184,459	127,829
10 to less than 12	125	74,017	84,500	97,209	122,727	154,000	106,317	83,510	98,005	116,913	154,780	186,284	128,400
12 to less than 14	107	86,000	100,000	111,000	127,500	150,000	116,108	109,771	120,378	133,089	153,915	184,800	143,191
14 to less than 16	105	81,769	94,081	110,000	130,000	162,000	116,654	99,383	112,000	136,724	160,230	195,100	141,362
16 to less than 18	68	76,000	90,000	115,000	133,662	151,475	115,585	92,691	112,704	136,836	164,329	191,020	140,951
18 to less than 20	51	82,800	93,000	119,538	142,000	155,000	120,506	101,518	115,717	141,409	178,554	217,666	149,241
20 to less than 25	187	87,000	101,000	121,101	148,792	170,000	128,236	105,076	122,481	145,465	179,848	218,041	155,486
25 to less than 30	200	87,374	100,000	124,750	150,621	192,500	135,544	104,056	121,927	151,521	190,652	257,841	169,900
30 to less than 35	214	89,775	105,007	131,000	160,000	190,000	138,746	105,553	125,350	155,761	196,880	251,540	168,569
35 or more	205	92,315	105,000	126,300	165,160	220,000	142,753	109,000	129,871	157,263	195,278	251,790	174,384
TOTAL	1692	72,000	88,290	109,779	137,000	170,000	117,877	83,930	105,779	132,413	167,603	213,260	144,031

A trend in the employment of professional engineers is the increasing number opting to practice as contract engineers. Employers of professional engineers are making greater use of such arrangements as a means of meeting peak workloads or to engage contract professionals for specific projects or tasks.

The Australian Bureau of Statistics estimates that up to 20 per cent of the workforce are now engaged in non- standard work arrangements with professionals operating as independent contractors or consultants among the fastest growing group.

Ultimately, the hourly rate charged depends on the market for the service provided and there is no substitute for specific knowledge of the particular industry and the value of the service being offered to a client, but these rates can be used as a benchmark to ensure that contractors don't undercharge for their services.

These hourly rates should be read in conjunction with *APESMA's Standard Terms of Engagement* and *APESMA's Guide to Writing Contracts for Independent Contractors and Consultants*. Both documents take account of important issues arising from changes to Personal Services Income rules effective July 2000. The changes will potentially impact on contractors and consultants engaged on an hourly basis. These documents are available to members from APESMA's website at www.apesma.asn.au.

The hourly rate for contract engineers takes into account the conditions of employment which apply to employee professional engineers, as contract professional employees must meet this cost themselves.

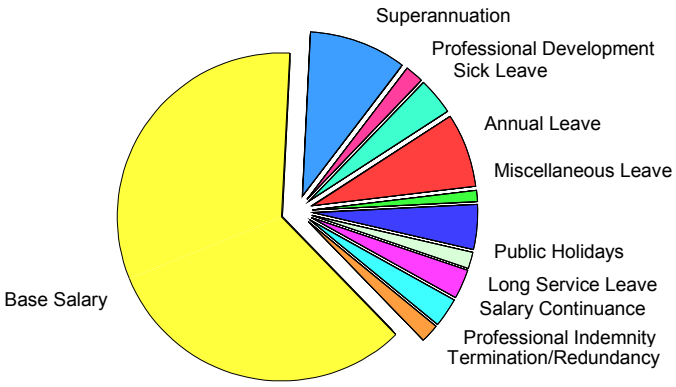
Professional engineer employees have access to the Australian Industrial Relations Commission and receive annual leave, sick leave, paid public holidays, long service leave, superannuation, jury leave, compassionate leave, family leave, professional development and retrenchment/ redundancy provisions.

The contract engineer may be engaged on an hourly basis and generally does not have access to these provisions. The contract engineer must take such provisions into account when determining the hourly fee to be charged.

Based on a 38 hour week, the hourly fee is calculated using a 1980 hour year (i.e. 38 hours by 52.1 weeks) and deducting from the year the following factors:

Public Holidays	12 days	92 hours
Annual Leave	20 days	152 hours
Long Service Leave	4.3 days	33 hours
Sick Leave	10 days	76 hours
Salary Continuance	3%	60 hours
Superannuation	10%	198 hours
Professional Indemnity (inc public liability)	3%	60 hours
Misc. leave (family, jury, etc)	3 days	23 hours
Professional Development	5 days	38 hours
Termination/Redundancy	5 days	38 hours
TOTAL		**770 hours**

GRAPH 8 – COMPONENTS OF HOURLY RATE FOR CONTRACT WORK



Thus the hourly rate should be calculated on the basis of about 1210 hours (1980 - 770).

If relevant, travel costs and workers compensation would be on top of these rates, and it may be necessary to factor in an additional charge to cover legal and accounting fees. Care should also be taken when to allow for rising professional indemnity insurance premiums. ASIC fees may also need to be covered depending on the particular business entity or structure the consultant or contractor has in place.

If the contract engineer is engaged through a contract agency, their workers compensation/disability insurance and superannuation contributions (of 9%) are paid for by the agency and these components in the above calculations would be altered accordingly.

If the contract engineer is engaged on a short-term basis, a further factor should be included to allow for the time and overheads involved in seeking contracts. A factor of 20% would not be unreasonable for this purpose. The hourly rate should then be based on 1000 hours.

To use the formula described here, should a contract engineer seek a salary equivalent of say $50,000 per annum then the hourly fee would be as follows:

Short-term contract $50,000/1000 hours = $50.00 p/h

Long-term contract $50,000/1210 hours = $41.30 p/h

The survey found little movement in the the median hourly rate of pay compared to the previous survey. For short-term contractors a median rate of $120 was reported compared to $105 for long-term contractors. These rates do not include GST.

	SHORT TERM ($ p/h)	LONG TERM ($ p/h)
Level 1	50-70	50-60
Level 2	75-100	70-95
Level 3	95-120	85-110
Level 4	110-150	95-115
Level 5	150-175	120-160

RESPONSIBILITY LEVELS DEFINITIONS

LEVEL 1 – PROFESSIONAL ENGINEER

The graduate engineer (as defined) commencement level.

The engineer undertakes initial professional engineering tasks of limited scope and complexity, such as minor phases of broader assignments, in office, plant, field or laboratory work.

Classification Level Definition

Under supervision from higher-level professional engineers as to method of approach and requirements, the professional engineer performs normal professional engineering work and exercises individual judgement and initiative in the application of engineering principles, techniques and methods.

In assisting more senior professional engineers by carrying out tasks requiring accuracy and adherence to prescribed methods of engineering analysis, design or computation, the engineer draws upon advanced techniques and methods learned during and after the undergraduate course.

Training, development and experience using a variety of standard engineering methods and procedures enable the professional engineer to develop increasing professional judgement and apply it progressively to more difficult tasks at Level 2.

Decisions are related to tasks performed, relying upon precedent or defined procedures for guidance. Recommendations are related to solution of problems in connection to the tasks performed.

Work is reviewed by higher-level professional engineers for validity, adequacy, methods and procedures. With professional development and experience, work receives less review, and the professional engineer progressively exercises more individual judgement until the level of competence at Level 2 is achieved.

The professional engineer may assign and check work of technical staff assigned to work on a common project.

LEVEL 2 – PROFESSIONAL ENGINEER

Classification Level Definition

Following development through Level 1 he/she is an experienced engineer (as defined) who plans and conducts professional engineering work without detailed supervision, but with guidance on unusual features and who is usually engaged on more responsible engineering assignments requiring substantial professional experience.

LEVEL 3 – PROFESSIONAL ENGINEER

Classification Level Definition

A professional engineer performing duties requiring the application of mature professional engineering knowledge. With scope for individual accomplishment and co-ordination of more difficult assignments, the professional deals with problems for which it is necessary to modify established guides and devise new approaches.

The professional engineer may make some original contribution or apply new professional engineering approaches and techniques to the design or development of equipment or special aspects of products, facilities and buildings.

Recommendations may be reviewed for soundness of judgement but are usually regarded as technically accurate and feasible. The professional engineer makes responsible decisions on matters assigned, including the establishment of professional engineering standards and procedures, consults, recommends and advises in speciality engineering areas.

Work is carried out within broad guidelines requiring conformity with overall objectives, relative priorities and necessary co-operation with other units. Informed professional engineering guidance may be available.

The professional engineer outlines and assigns work, reviews it for technical accuracy and adequacy, and may plan, direct, co-ordinate and supervise the work of other professional and technical staff.

LEVEL 4 – PROFESSIONAL ENGINEER

Classification Level Definition

A professional engineer required to perform professional engineering work involving considerable independence in approach, demanding a considerable degree of originality, ingenuity and judgement, and knowledge of more than one field of, or expertise (for example, acts as his/her organisation's technical reference authority) in a particular field of professional engineering.

The professional engineer:

- initiates or participates in short-range or long-range planning and makes independent decisions on engineering policies and procedures within an overall program;
- gives technical advice to management and operating departments;
- may take detailed technical responsibility for product development and provision of specialised engineering systems, facilities and functions;
- co-ordinates work programs; and
- directs or advises on use of equipment and material.

The professional engineer makes responsible decisions not usually subject to technical review, decides courses of action necessary to expedite the successful accomplishment of assigned projects, and may make recommendations involving large sums or long-range objectives.

Duties are assigned only in terms of broad objectives and are reviewed for policy, soundness of approach, accomplishment and general effectiveness.

The professional engineer supervises a group or groups including professional engineers and other staff, or exercises authority and technical control over a group of professional staff, in both instances engaged in complex engineering applications.

LEVEL 5 – PROFESSIONAL ENGINEER

Classification Level Definition

A professional engineer usually responsible for an engineering administrative function, directing several professional and other groups engaged in inter-related engineering responsibilities, or as an engineering consultant. Achieving recognition as an authority in an engineering field of major importance to the organisation.

The professional engineer independently conceives programs and problems to be investigated and participates in discussions determining basic operating policies, devising ways of reaching program objectives in the most economical manner and of meeting any unusual conditions affecting work progress.

The professional engineer makes responsible decisions on all matters, including the establishment of policies and expenditures of large sums of money and/or implementation of major programs, subject only to overall policy and financial controls.

The professional engineer receives administrative direction based on organisation policies and objectives. Work is reviewed to ensure conformity with policy and co-ordination with other functions.

The professional engineer reviews and evaluates technical work; selects, schedules, and co-ordinates to attain program objectives: and/or as administrator, makes decisions concerning selection, training, rating, discipline and remuneration of staff.

TERMS USED

For the purposes of analysis, the following statistics were used:

- *Lower decile* – the value below which 10% of data was recorded.
- *Lower quartile (Q1)* – the value below which 25% of data was recorded.
- *Median* – the value below which 50% of data was recorded.
- *Upper quartile (Q3)* – the value below which 75% of data was recorded.
- *Upper decile* – the value below which 90% of data was recorded.
- *Mean* – the sum of individual values divided by the number of data items.
- *Base salary* – annual salary excluding allowances or non-cash benefits
- *Total Package* – annual salary plus the value of all components of remuneration items such as motor vehicle, performance pay, superannuation, overtime & award allowances.

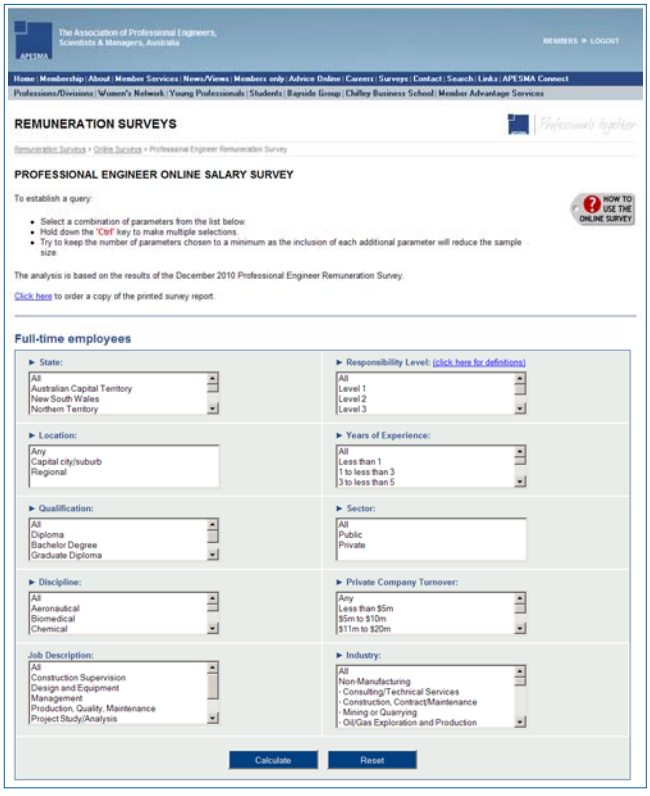
ONLINE ACCCESS

Members of APESMA and subscribers to the Professional Engineer Remuneration Survey Report are able to access salary results on the APESMA website.

Users can select a combination of position-related parameters and query the database to return specific remuneration levels related to the query.

Parameters by which analysis may be performed include state, industry, qualification, years of experience, employment sector, scientific discipline and responsibility level.

The Professional Engineer Remuneration Survey Report Online is available at www.apesma.asn.au/online_surveys. Members will need to use their membership number to login.



ABOUT THE SURVEY

The Autumn 2011 Professional Engineer Remuneration Survey was conducted during March 2011 using a random selection of members of the Association of Professional Engineers, Scientists and Managers, Australia and the Institution of Engineers, Australia. Two thousand, three-hundred and thirty-three completed questionnaires were returned and were used for the analyses contained in the report.

HOW TO ORDER

This extract is a summary of the full 124-page Professional Engineer Remuneration Survey Report. Non-members can purchase a single issue for $295 (inc. GST), or can subscribe for a full year (two editions) for $495 (inc. GST).

APESMA members receive a significant discount on these prices, but cannot purchase the report on behalf of any third party at the discount price.

For more information about purchasing the Professional Engineer Remuneration Survey Report, visit the APESMA website at www.apesma.asn.au/surveys/engineers, where you can download and complete an order form or order online via our secure e-commerce facility.

If you have any questions, please contact the Surveys Unit via email survey@apesma.asn.au or phone (03) 9695 8839.

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