Professional Engineers
Ontario

Ontario Engineers' Salaries

Survey of Employers

2002

Summary Report

Complimentary

Use of Title

Message to Employers

In Ontario, it is illegal to use the title "professional engineer," if you are not licensed by PEO. Similarly, the use of terms such as project engineer, junior engineer, software engineer, etc. in circumstances where the use of such terms is demonstrated to be misleading is also illegal. ***Professional Engineers Act, Sections 12(1) and 40(2), 2(b), (5).***

The Canadian Council of Professional Engineers, of which this association is a constituent member, has protected under terms of the *Canada Trade Mark Act* the terms "Engineer", "Professional Engineer" and "P.Eng.".

We suggest that Human Resources personnel be made aware of this requirement, and that job titles containing the word "Engineer" be given only to those people who are licensed by PEO.

We believe that your recognition of the restrictions on engineering titles will go a long way to clarifying the job descriptions written by your organization, and ask for your cooperation.

For further information, please contact PEO Legal Affairs
Tel: 416 224-1100 or 1-800-339-3716
Fax: 416 224-8168 or 1-800-268-0496

Professional Engineers
Ontario

ACKNOWLEDGEMENTS

The association acknowledges the assistance of the Advisory Committee on Salaries with the yearly Salary Survey of Employers. The Advisory Committee operates under the authority of Professional Engineers Ontario and is primarily made up of salary administrators from industry who have an interest in developing and maintaining a reliable survey covering engineering salaries. Their audit of survey results is a guarantee of the accuracy of the data contained in this report.

MEMBERS OF THE ADVISORY COMMITTEE ON SALARIES

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General Motors of Canada

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Government of Ontario

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Manager, Human Resources
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INTRODUCTION

This is the 49th consecutive survey carried out among employers of engineers in Ontario. The report has been compiled by the staff of Professional Engineers Ontario and audited by the Advisory Committee on Salaries.

Salaries are those in effect as of June 1, 2002, and do not include fringe benefits, lump sum bonus or merit award payments. The statistics are offered as a guide to professional engineers, engineering interns and employers and should *not* be construed as a recommended salary scale.

Participating companies were asked to report the salaries paid to all full-time engineers working within the province of Ontario and identified by one of the six levels of responsibility. Additional information was collected from participants regarding organization size, metropolitan area, major industry sector, and additional cash compensation paid to engineers. Results of this information are contained in the **Detailed Report,** which is available through the order form at the back of this report.

Questions regarding the report or its interpretation should be directed to **Salary Surveys, Professional Engineers Ontario, 25 Sheppard Ave. W., Ste. 1000, Toronto, ON M2N 6S9. Tel: 416-224-1100.**

METHODOLOGY

Reporting manuals were sent to 275 organizations that are active on the PEO participant list for the Employers' Survey. Valid data were received from 163 organizations reporting on 16,962 engineers. The number of engineers reported was slightly lower than the 2001 survey, which reported on 17,689 engineers from 159 organizations.

SURVEY HIGHLIGHTS

The median annual salary reported as of June 1, 2002, was $78,400, an increase of 2.4% from the median salary reported in June 2001. The median entry level salary for new graduates was $49,000 down by 2.1% from the previous year. During the same period, the Consumer Price Index for Ontario rose 1.2%.

HOW TO USE THIS REPORT

1. Relating Experience to Level of Responsibility

This relationship should be interpreted carefully, consistent with two different breakdowns. The first is the *Guide to Entrance Qualifications included in the Classification of Engineering Responsibility Levels* on pages 10-11. This guide is only an indicator of the length of experience normally prerequisite for an individual to enter a given level. Supplementing this is the *Spread of Actual Years From Graduation* found among engineers occupying a given level (see table on next page).

Obviously, an individual's responsibility level cannot be assessed on the basis of experience alone. The level of responsibility is an *attribute of a position, not of a person.*

2. Determining Level of Responsibility

It is frequently difficult to determine the level of responsibility of a given individual or job from the level definitions, especially since each level embraces many fields of engineering activity. More specific position descriptions are provided in the document *Engineering Salary Survey Benchmarks*. Copies may be obtained from the association. The document is also available from the Salary Survey section under Publications on PEO's website at www.peo.on.ca.

3. Relating Salaries to Jobs

Once the responsibility level has been determined, the corresponding salary measures provide a standard comparison that should be used prudently. An individual's position in a range will be dependent on the specific position occupied within a given level; the value placed on the individual's background and experience; the individual's proficiency and performance; and general economic conditions. A further elaboration of the picture can be found in the maturity data, by level and all levels combined.

INTERPRETING THE DATA

Salary figures shown represent the ranges of actual salaries paid by the participating companies and organizations at a given point in time. Since the salaries are only applicable at a specific date (June 1), they are not valid for any extended period. Salaries are constantly moving, at different rates, depending on a variety of factors.

The "# of Engs." represents the number of engineers (also referred to as observations) that organizations reported. For instances where fewer than five observations are reported, no salary measures are supplied. Mean (average) figures are given only when five to nine observations are reported. Asterisks are used in both graphs and tables when there are fewer than five observations.

The line entries "Not Available" under "Year of Graduation" and "Year(s) from/of Graduation" refer to observations where no year of bachelor's degree was reported. Many engineers also have postgraduate degrees (e.g. M.Eng., PhD, MBA), but the Year of Graduation tables refer to the bachelor graduating year and *not* the date of the highest degree obtained. "No Degree" refers to engineers who have not graduated from a bachelor's program and likely joined the profession through the examination process.

The 2002 salary tables report each graduating year individually up to 1967 (35 years from graduation). The next category ">35 Years" includes the engineers who graduated before 1967.

DEFINITIONS OF THE MEASURES USED

Salaries as defined in this report constitute annual base salaries paid as of June 1, 2002 to full-time employees. They **do not** include bonuses, commissions, profit sharing, overtime or fringe benefits.

Mean Rate is sometimes referred to as the **numerical average.** The mean rate can be unduly influenced by very high/low figures. When the sample size is small, more reliable comparisons are obtained using median figures.

Low Decile (D1):
90% of the salaries were above this point and 10% were below it.

Low Quartile (Q1):
75% of the salaries were above this point and 25% were below it.

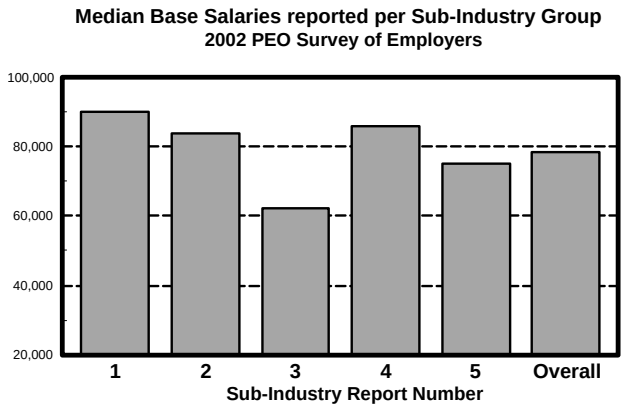
Median Salary:
50% of the salaries were above this point and 50% were below it.

High Quartile (Q3):
25% of the salaries were above this point and 75% were below it.

High Decile (D9):
10% of the salaries were above this point and 90% were below it.

SUMMARY OF THE DATA

The graph represents the median base salaries of the five sub-industry groupings outlined in the List of Participants (refer to page 9). Please see the Order Form for more information on obtaining Sub-Industry Reports.



SPREAD OF ACTUAL YEARS FROM GRADUATION — By Responsibility Level, June 1, 2002

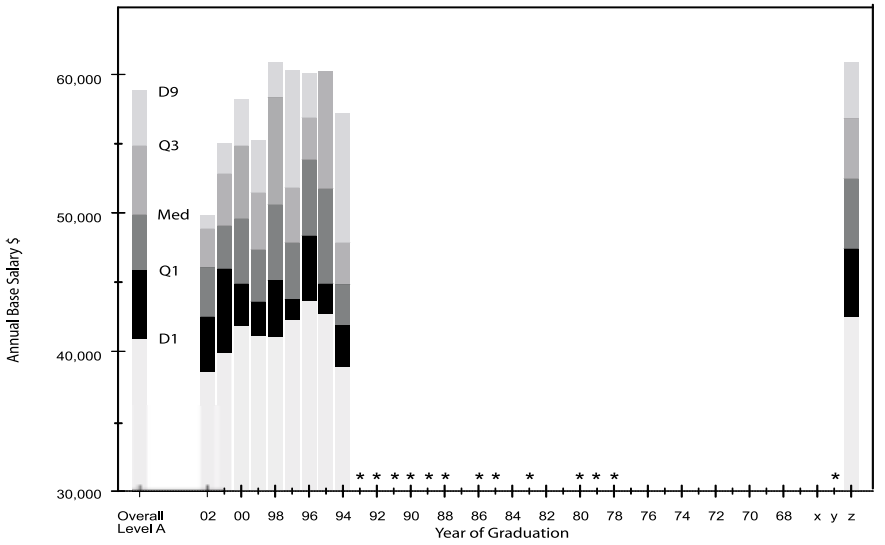
Level	A	B	C	D	E	F
Median	2	4	11	17	22	25
Middle 50%	1-3	2-6	7-16	11-24	17-28	19-31
Middle 80%	1-5	2-9	4-23	8-30	13-33	15-35
Number of Engineers reported by year	619	1,476	2,336	3,926	2,529	1,003

AVERAGE BASE SALARIES BY RESPONSIBILITY LEVEL

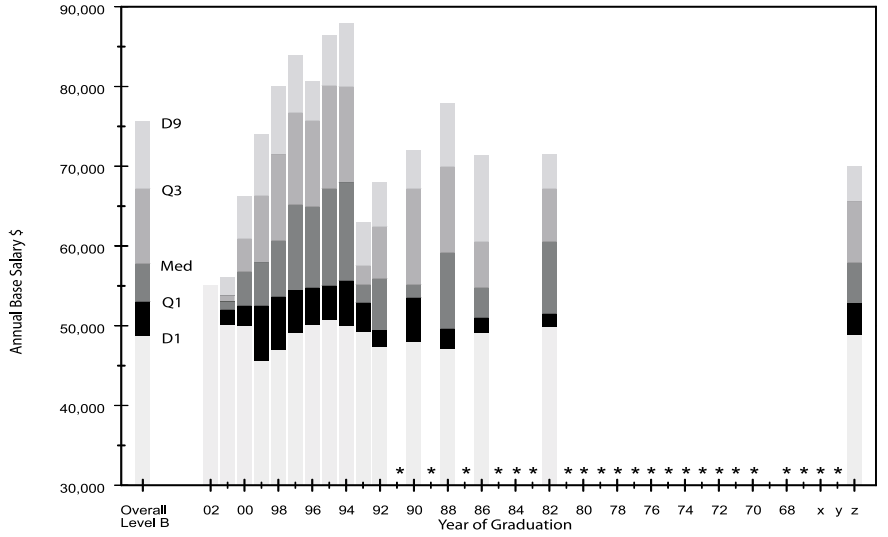
Year of Graduation	LEVEL A		LEVEL B		LEVEL C		LEVEL D		LEVEL E		LEVEL F	
	# of Engs.	Mean $	# of Engs.	Mean $	# of Engs.	Mean $	# of Engs.	Mean $	# of Engs.	Mean $	# of Engs.	Mean $
ALL	**1,020**	**50,245**	**2,218**	**60,490**	**3,586**	**68,040**	**5,460**	**83,806**	**3,378**	**96,912**	**1,300**	**115,204**
2002	47	45,226	22	55,088	*	*	-	-	-	-	-	-
2001	196	48,772	121	52,755	12	59,527	*	*	-	-	-	-
2000	171	50,046	234	57,137	62	59,200	9	78,329	-	-	-	-
1999	76	47,727	216	59,520	92	60,162	10	69,070	*	*	-	-
1998	40	51,369	208	62,947	126	61,746	28	80,122	*	*	-	-
1997	27	48,721	172	66,363	151	63,720	60	81,818	*	*	*	*
1996	15	52,546	155	65,657	130	62,794	96	84,816	10	89,152	-	-
1995	10	52,293	100	67,809	150	65,202	120	85,780	16	87,779	*	*
1994	11	44,799	91	68,208	117	65,407	144	87,886	16	86,071	*	*
1993	*	*	18	55,471	159	70,362	176	88,197	8	83,814	8	107,020
1992	*	*	22	56,865	145	71,149	152	90,734	29	86,797	5	117,450
1991	*	*	8	54,580	114	71,365	185	83,942	52	105,563	7	119,319
1990	*	*	17	58,444	97	72,160	194	85,130	62	100,039	14	107,494
1989	*	*	7	54,170	114	73,491	187	85,122	91	103,445	31	120,772
1988	*	*	10	60,622	110	73,658	156	85,976	101	102,614	23	121,842
1987	-	-	5	53,807	90	72,673	171	87,064	89	103,112	28	120,301
1986	*	*	10	57,549	80	70,804	152	87,010	120	101,959	39	120,118
1985	*	*	5	64,645	74	73,425	166	85,971	141	98,853	32	121,820
1984	-	-	8	57,014	65	73,076	154	85,396	102	97,723	33	116,899
1983	*	*	6	63,136	60	73,735	128	86,759	94	100,376	39	119,031
1982	-	-	11	60,251	59	76,465	154	87,517	117	100,330	40	126,410
1981	-	-	5	65,118	48	72,715	160	88,626	120	98,970	48	123,067
1980	*	*	*	*	33	73,337	140	84,528	127	97,790	36	121,196
1979	*	*	*	*	32	72,183	113	87,055	110	101,640	42	119,646
1978	*	*	*	*	20	75,352	127	87,897	109	96,098	51	117,239
1977	-	-	*	*	33	71,870	114	84,227	103	95,444	37	119,436
1976	-	-	*	*	23	73,775	109	85,259	114	100,470	34	116,307
1975	-	-	*	*	15	71,254	96	85,634	108	97,560	48	115,441
1974	-	-	*	*	18	74,524	98	85,954	92	96,835	48	117,381
1973	-	-	*	*	19	68,171	67	88,479	73	96,750	44	114,502
1972	-	-	*	*	18	71,236	86	88,912	77	99,583	39	110,354
1971	-	-	*	*	12	74,836	66	87,998	87	96,760	36	115,879
1970	-	-	*	*	11	73,805	62	87,620	71	97,885	38	108,861
1969	-	-	*	*	9	67,543	53	86,191	55	98,462	28	116,785
1968	-	-	-	-	7	69,173	43	85,037	57	95,832	34	114,605
1967	-	-	*	*	6	77,164	33	85,011	44	92,928	30	113,863
Before 1967	-	-	*	*	22	69,626	114	85,552	126	97,070	104	109,795
No Degree	*	*	8	54,243	22	64,890	32	81,019	29	89,781	12	108,088
Not Available	400	52,364	734	58,795	1,228	66,303	1,502	77,332	820	91,826	285	109,999

Salary Distribution by Year of Graduation

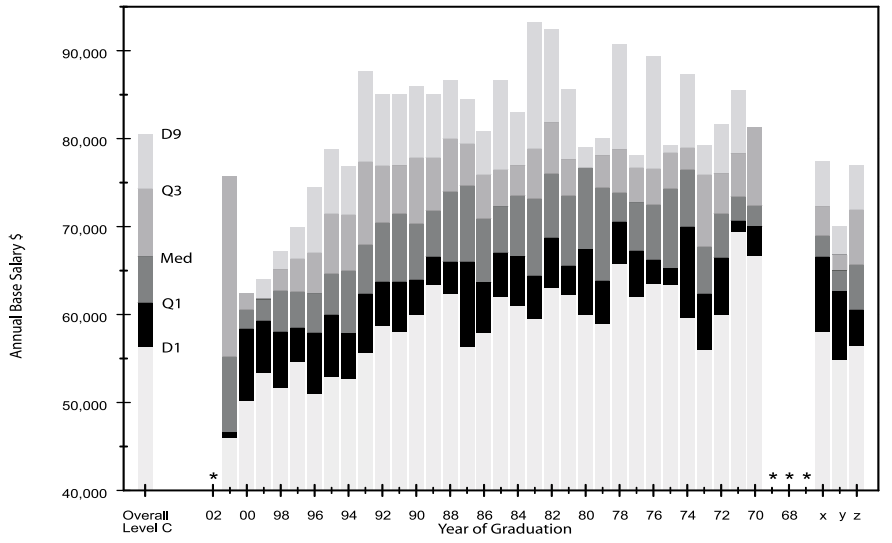
Level A



Level B



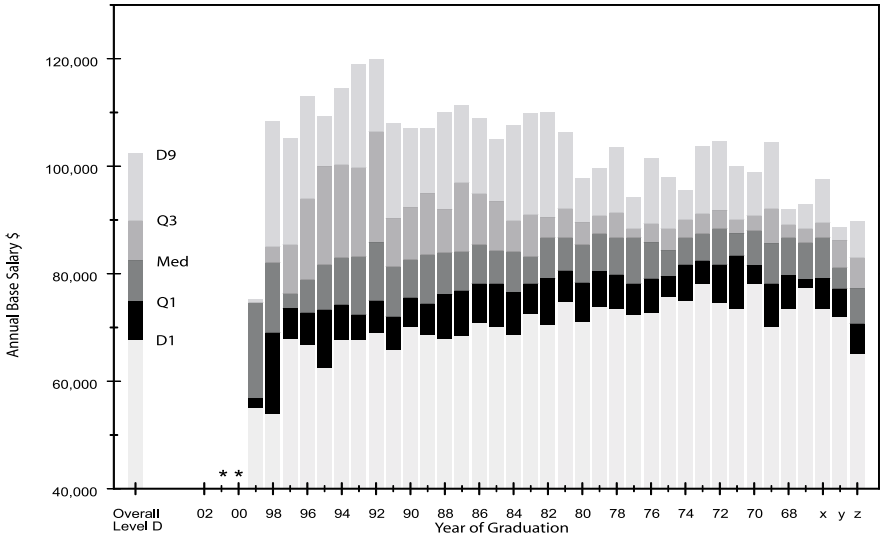
Level C



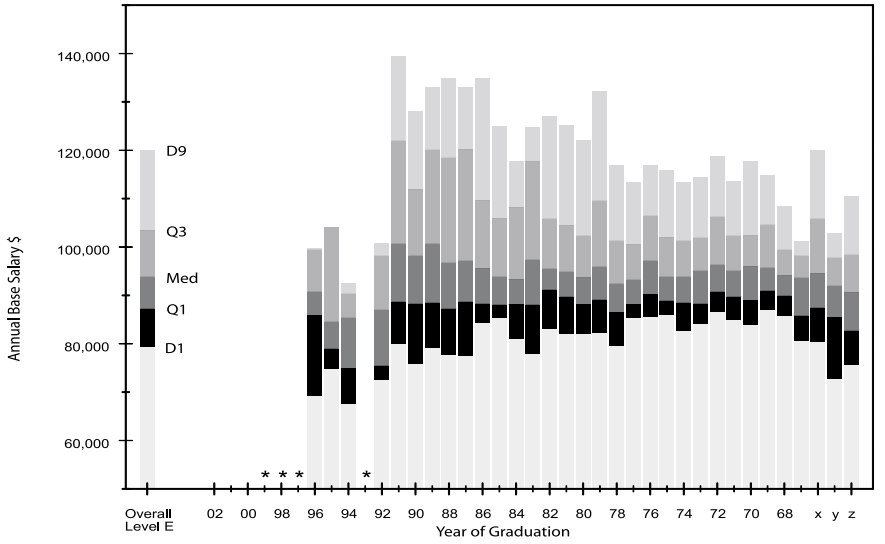
0-D1 D1-Q1 Q1-Median Median-Q3 Q3-D9

x=<1967 y=No Degree z=Not Available

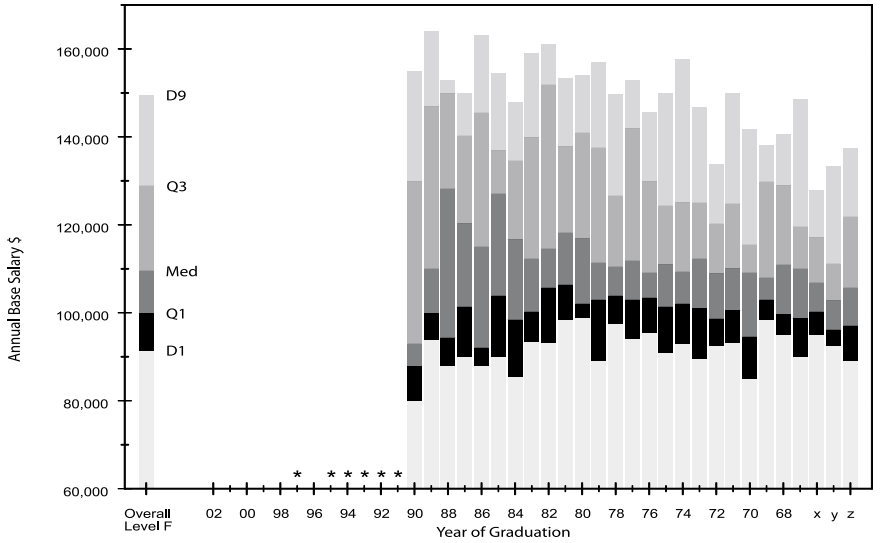
Level D



Level E



Level F



0-D1 | D1-Q1 | Q1-Median | Median-Q3 | Q3-D9

x=<1967 y=No Degree z=Not Available

BASE SALARIES BY YEAR OF GRADUATION—ALL LEVELS COMBINED

Year(s) from/of Graduation		No. of Engs.	Mean $	D1 $	Q1 $	Median $	Q3 $	D9 $
Overall All Levels		**16,962**	**80,422**	**54,228**	**64,646**	**78,400**	**92,330**	**108,205**
0	2002	72	49,159	39,000	46,200	49,000	55,009	55,009
1	2001	332	50,893	42,000	47,489	51,978	53,796	56,100
2	2000	476	55,259	44,004	50,000	55,152	59,750	65,000
3	1999	397	57,932	44,720	50,132	58,000	62,400	71,320
4	1998	405	62,730	47,500	54,000	61,500	68,000	80,000
5	1997	413	66,587	50,000	56,748	65,280	75,000	84,240
6	1996	406	69,365	51,000	57,920	66,936	77,250	92,000
7	1995	398	72,793	52,800	60,450	70,000	81,700	100,000
8	1994	383	75,474	52,968	60,002	72,883	86,127	100,481
9	1993	373	78,862	57,000	64,800	74,160	88,000	107,069
10	1992	356	80,348	58,260	67,156	75,797	91,188	108,000
11	1991	370	82,713	61,417	68,715	79,090	90,686	110,210
12	1990	388	83,514	62,000	70,550	80,877	93,040	107,900
13	1989	431	87,864	65,952	72,900	83,580	99,930	117,000
14	1988	403	87,893	65,025	74,000	83,952	97,000	118,770
15	1987	383	89,407	66,000	75,195	84,090	100,000	123,000
16	1986	403	90,536	65,975	75,763	85,834	100,491	118,810
17	1985	419	90,497	67,817	76,500	86,532	100,420	120,500
18	1984	362	88,902	66,000	76,976	86,778	98,000	116,530
19	1983	328	91,570	67,232	77,240	88,070	102,441	120,000
20	1982	381	93,036	69,200	78,842	89,107	101,592	121,200
21	1981	381	93,910	72,500	80,693	89,382	102,820	125,000
22	1980	340	91,855	72,051	79,727	88,333	99,204	119,350
23	1979	301	94,920	73,502	81,750	90,779	102,440	127,733
24	1978	309	94,619	74,459	82,992	90,306	103,460	120,000
25	1977	288	91,276	70,346	79,500	88,202	97,709	114,750
26	1976	283	93,917	73,502	82,400	90,269	103,020	113,000
27	1975	269	94,746	76,960	83,799	91,008	102,324	115,830
28	1974	258	94,647	76,224	83,952	90,895	101,631	114,600
29	1973	204	95,024	75,890	84,358	91,192	103,614	120,000
30	1972	222	94,626	73,847	84,264	91,926	103,593	117,700
31	1971	202	95,708	78,000	86,460	92,460	102,440	115,000
32	1970	184	94,891	76,648	85,036	92,252	102,412	116,000
33	1969	147	95,139	70,694	82,547	93,337	104,650	120,000
34	1968	141	95,743	76,915	86,721	92,900	102,000	118,392
35	1967	114	95,088	78,169	84,634	91,502	100,380	114,800
>35		367	95,352	74,500	85,051	93,250	105,500	118,000
No Degree		104	80,729	57,590	66,666	81,696	92,277	102,400
Not Available		4,969	74,124	54,000	61,335	71,702	83,706	97,110

LIST OF PARTICIPANTS BY MAJOR INDUSTRY CATEGORY

Resource Industry
Cameco Corporation
Falconbridge Ltd.
INCO Limited
Noranda Inc.

Durable Manufacturing
[1]ABB Inc.
[3]Babcock & Wilcox Canada Ltd.
[3]Blount Canada Ltd.
Bombardier Transportation
CGC Inc.
Camco Inc.
CAMI Automotive Inc.
[1]Celestica International Inc.
[1]CMC Electronics Inc.
[1]COM DEV
[1]Communications & Power Industries Canada Inc.
[1]Delphax Technologies Canada Ltd.
[3]Dofasco Inc.
[1]FCI Canada Inc.
[1]General Dynamics Canada
[1]General Electric Canada Inc.
General Motors of Canada Ltd.
[1]George Kelk Corporation
Husky Injection Molding Systems Ltd.
[1]Imago Machine Vision Inc.
[3]Indal Technologies Inc.
[1]JDS Uniphase Inc.
John Deere Welland Works
[1]Litton Systems Canada
[1]Lockheed Martin Canada Inc.
MD Robotics
MDS Sciex
[1]Mitel Networks Corporation
[1]Motorola Canada Limited
[1]N C R Canada Ltd.
[1]Neptec Design Group Ltd.
[1]NORTEL Networks
[3]Orenda Aerospace Corporation
[3]Peacock Inc.
[3]Pratt & Whitney Canada Inc.
[1]Raytheon Canada Limited
[1]Rockwell Automation Canada Inc.
[1]S & C Electric Canada Ltd.
[1]Schneider Electric
Senstar-Stellar Corp.
[1]Siemens Westinghouse Inc.
[3]Stelco Inc.
[3]Sterling Fluid Systems (Canada) Ltd.
The Woodbridge Group
Toyota Motor Manufacturing Canada Inc.
Vari-Form Inc.
ZENON Environmental Ltd.

Non-Durable Manufacturing
3M Canada Company
[2]Bayer Inc.
[2]Canada Colors & Chemicals Ltd.
[2]Dow Chemical Canada Inc.
[2]DuPont Canada Inc.
GlaxoSmithKline Inc.
[2]Huntsman Corporation Canada Inc.
[2]Imperial Oil Ltd.
Kimberly-Clark Inc.
Kodak Canada Inc.
[2]LV Lomas Limited
[2]NOVA Chemicals (Canada) Ltd.
Pavaco Plastics
[2]Petro-Canada
Pfizer Canada Inc., Consumer Group
PolyOne Canada Inc.
Praxair Canada Inc
[2]Procter & Gamble Inc.
[2]Rohm and Haas Canada Inc.
[2]Safety-Kleen Canada Inc.
[2]Suncor Energy, Sunoco Inc.
Tembec, Spruce Falls Operations
The Gates Rubber Company
Uniroyal Chemical Ltd.

Technical Services
[4]AT&T Canada
[4]Bloorview MacMillan Centre
[4]Canadian Broadcasting Corp.
[4]Canadian Tire Corporation
[4]Cedara Software
[4]CSA Group
[4]EMS Technologies
[4]Enbridge Consumers Gas
[4]Enersource Corporation
[4]GO Transit
[4]Hydro One
[4]Microcell Telecommunications Inc.
[4]Ontario Power Generation Inc.
[4]Rogers AT&T Wireless
[4]Sprint Canada
[4]Telesat Canada
[4]Toronto Hydro-Electric System
[4]Toronto Transit Commission
[4]Union Gas Limited
[4]xwave Solutions

Consulting & Construction
[5]Acres International Ltd.
[5]AECL
[5]Ainley & Associates Limited
[5]AMEC E&C Services
[5]B.M. Ross and Associates Limited
[5]Bosher Keightley Letham Ltd.
[5]Canatom NPM Inc.
[5]CH2M HILL Canada Limited
[5]Chorley & Bisset Ltd.
[5]Cole, Sherman & Associates Limited
[5]Conestoga-Rovers & Associates Ltd.
[5]Cumming Cockburn Ltd.
[5]Dick Engineering Inc.
[5]Dillon Consulting Limited
[5]Earth Tech Canada Inc.
[5]Fluor Canada Ltd.
[5]G L Tiley & Associates Ltd.
[5]Gartner Lee Limited
[5]Giffels Associates Limited
[5]Glos Engineering Ltd.
[5]Golder Associates Ltd.
[5]Hastings & Aziz Ltd.
[5]Hatch Associates Ltd.
[5]Holcim Group Support (Canada) Ltd.
[5]Horton CBI, Limited
[5]iTRANS Consulting Inc.
[5]Kazmar Associates Ltd.
[5]Kvaerner Metals
[5]Maple Engineering & Construction Canada Ltd.
[5]Marshall Macklin Monaghan Limited
[5]McCormick Rankin Corporation
[5]McIntosh Engineering Ltd.
[5]Morrison Hershfield Ltd.
[5]O'Connor Associates Environmental Inc.
[5]Peto MacCallum Ltd.
[5]Philips Engineering Ltd.
[5]Rowan Williams Davies & Irwin Inc.
[5]Sandwell Consulting Engineers Ltd.
[5]SENES Consultants Limited
[5]Serdula Systems Ltd.
[5]Simcoe Engineering Group Limited
[5]SNC-Lavalin Group Inc.
[5]Spectrum Consulting Inc.
[5]Spriet Associates London Ltd.
[5]Stantec Consulting Ltd.
[5]Stone & Webster Canada
[5]Terraprobe Testing Ltd.
[5]The Mitchell Partnership Inc.
[5]The Sernas Group Inc.
[5]The Walter Fedy Partnership
[5]Trow Consulting Engineers Ltd.
[5]TSH
[5]UMA Engineering Ltd.
[5]Watts, Griffis and McOuat Limited

Public Sector
City of Guelph
City of Hamilton
City of Mississauga
City of Ottawa
City of Peterborough
City of St. Catharines
City of Toronto
City of Windsor
Government of Ontario
Regional Municipality of Durham
Regional Municipality of Niagara
Regional Municipality of Peel
Regional Municipality of York
The St. Lawrence Seaway Management Corporation

MORE SALARY REPORTS AVAILABLE

PEO publishes salary maturity tables for five major sub-industry groupings. Many employers and individual engineers have taken advantage of this opportunity to obtain data specific to these five fields of engineering activity.

Salary Tables for Sub-Industry Groups

1. Electrical/Electronics Products – Manufacturing
2. Petrochemical/Chemical Products – Manufacturing
3. Primary Metals/Metal Fabrication – Manufacturing
4. Technical Services
5. Consulting/Construction – Services

The "List of Participants" indicates by **superscript** number which organizations are included in each group. These reports are available at a cost of $85 plus GST for each report requested. Please use the order form on the back cover.

Classification Guide Of Engineering Responsibility Levels

Level of Responsibility	LEVEL A	LEVEL B	LEVEL C
Median	$50,000	$57,800	$66,619
50% Spread	$46,000-55,000	$53,000-67,182	$61,335-74,350
80% Spread	$41,038-59,000	$48,729-75,600	$56,376-80,564
Duties	Receives training in the various phases of office, plant, field or laboratory engineering work as classroom instruction or on-the-job assignments. Tasks assigned include: preparation of simple plans, designs, calculations, costs and bills of material in accordance with established codes, standards, drawings or other specifications. May carry out routine technical surveys or inspections and prepare reports.	Normally regarded as a continuing portion of an engineer's training and development. Receives assignments of limited scope and complexity, usually minor phases of broader assignments. Uses a variety of standard engineering methods and techniques in solving problems. Assists more senior engineers in carrying out technical tasks requiring accuracy in calculations, completeness of data and adherence to prescribed testing, analysis, design or computation methods.	This is typically regarded as a fully qualified professional engineering level. Carries out responsible and varied engineering assignments requiring general familiarity with a broad field of engineering and knowledge of reciprocal effects of the work upon other fields. Problems usually solved by use of combination of standard procedures, modification of standard procedures, or method developed in previous assignments. Participates in planning to achieve prescribed objectives.
Recommendations, Decisions and Commitments	Few technical decisions called for and these will be of routine nature with ample precedent or clearly defined procedures as guidance.	Recommendations limited to solution of the problem rather than end results. Decisions made are normally within established guidelines.	Makes independent studies, analyses, interpretations and conclusions. Difficult, complex or unusual matters or decisions are usually referred to more senior authority.
Supervision Received	Works under close supervision. Work is reviewed for accuracy and adequacy and conformance with prescribed procedures.	Duties are assigned with detailed oral and occasionally written instructions, as to methods and procedures to be followed. Results are usually reviewed in detail and technical guidance is usually available	Work is not generally supervised in detail and amount of supervision varies depending upon the assignment. Usually technical guidance is available to review work programs and advise on unusual features of assignment.
Leadership Authority and/or Supervision Exercised	May assign and check work of one to five technicians or helpers.	May give technical guidance to one or two junior engineers, or technicians, assigned to work on a common project.	May give technical guidance to engineers of less standing, or technicians assigned to work on a common project. Supervision over other engineers not usually a regular or continuing responsibility.
Guide to Entrance Qualifications	Bachelor's degree in Engineering, or Applied Science, or its equivalent with little or no practical experience.	Bachelor's degree in Engineering, or Applied Science, or its equivalent, normally with two-to-three years' working experience from the graduation level.	Bachelor's degree in Engineering, or Applied Science, or its equivalent, normally with minimum three-to-five years' related working experience from the graduation level.

LEVEL D	LEVEL E	LEVEL F	BEYOND LEVEL F
$82,500 $74,900-89,890 $67,722-102,500	$93,869 $87,300-103,488 $79,370-120,000	$109,628 $99,900-129,004 $91,351-149,590	Not Reported
This is the first level of direct and sustained supervision of other professional engineers OR the first level of full specialization. Requires application of mature engineering knowledge in planning and conducting projects having scope for independent accomplishment and coordination of the difficult and responsible assignments. Assigned problems make it necessary to modify established guides, devise new approaches, apply existing criteria in new manners, and draw conclusions from comparative situations.	Usually requires knowledge of more than one field of engineering OR performance by an engineering specialist in a particular field of engineering. Participates in short and long range planning; makes independent decisions on work methods and procedures within an overall program. Originality and ingenuity are required for devising practical and economical solutions to problems. May supervise large groups containing both professional and non-professional staff; OR may exercise authority over a small group of highly qualified professional personnel engaged in complex technical applications.	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 organization. Independently conceives programs and problems to be investigated. 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.	Within the framework of general policy, conceives independent programs and problems to be investigated. Plans or approves projects requiring the expenditure of a considerable amount of human resources and financial investment. Determines basic operating policies and solves primary problems or programs to accomplish objectives in the most economical manner to meet any unusual condition.
Recommendations reviewed for soundness of judgment but usually accepted as technically accurate and feasible.	Makes responsible decisions not usually subject to technical review on all matters assigned except those involving large sums of money or long range objectives. Takes courses of action necessary to expedite the successful accomplishment of assigned projects.	Makes responsible decisions on all matters, including the establishment of policies and expenditure of large sums of money and/or implementation of major programs, subject only to overall company policy and financial controls.	Responsible for long range planning, coordination, making specific and far-reaching management decisions. Keeps management associates informed of all matters of significant importance.
Work is assigned in terms of objectives, relative priorities and critical areas that impinge on work of other units. Work is carried out within broad guidelines, but informed guidance is available.	Work is assigned only in terms of broad objectives to be accomplished, and is reviewed for policy, soundness of approach and general effectiveness.	Receives administrative direction based on organization policies and objectives. Work is reviewed to ensure conformity with policy and coordination with other functions.	Operates with broad management authority, receiving virtually no technical guidance and control; limited only by general objectives and policies of the organization.
Assigns and outlines work; advises on technical problems; reviews work for technical accuracy, and adequacy. Supervision may call for recommendations concerning selection, training, rating and discipline of staff.	Outlines more difficult problems and methods of approach. Coordinates work programs and directs use of equipment and material. Generally makes recommendations as to the selection, training, discipline and remuneration of staff.	Reviews and evaluates technical work; selects, schedules, and coordinates to attain program objectives; and/or as an administrator makes decisions concerning selection, training, rating, discipline and remuneration of staff.	Gives administrative direction to subordinate managers. Contact with the workforce is normally through such levels rather than direct.
Bachelor's degree in Engineering, or Applied Science, or its equivalent, normally with a minimum of five-to-eight years of experience in the field of specialization from the graduation level.	Bachelor's degree in Engineering, or Applied Science, or its equivalent, normally with a minimum of nine-to-12 years of engineering, and/or administrative experience from the graduation level.	Bachelor's degree in Engineering, or Applied Science, or its equivalent, with broad engineering experience, including responsible administrative duties.	Bachelor's degree in Engineering, or Applied Science, or its equivalent with many years' authoritative engineering and administrative experience. The incumbent is expected to possess a high degree of originality, skill and proficiency in the various broad phases.

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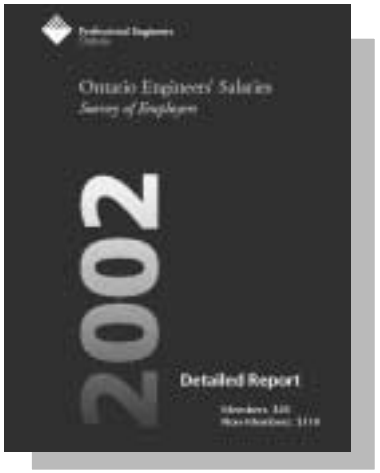
2002 Ontario Engineers' Salaries

SURVEY OF EMPLOYERS



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SUMMARY REPORT

Contains salary maturity data in table and graph formats. Published in the September/October issue of *Engineering Dimensions*. Complimentary copy available on request or visit PEO's website at www.peo.on.ca

DETAILED REPORT

Contains salary maturity tables plus other salary tables and graphs for in-depth analysis of engineers' compensation.
Additional survey information includes:

- Salaries by major industry
- Salaries by job type (new data variable introduced this year)
- Salaries by geographical area
- Salaries by size of organization
- Year-to-year increases by responsibility level
- Bonus and additional cash payments
- Weekly hours of work
- Salary maturity (year of graduation) tables

Members/Survey Participants: $45 per copy, $60 diskette
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- Electrical/Electronics Products—Manufacturing
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This report presents information on re-earnable lump sum cash payments, such as bonuses, profit sharing and commissions related to performance that were paid to engineers in addition to base salary.
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