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July 1996**

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© Minister of Supply and Services Canada 1996
Cat. No. C1-4/1995
ISBN 0-662-62557-9
51121B



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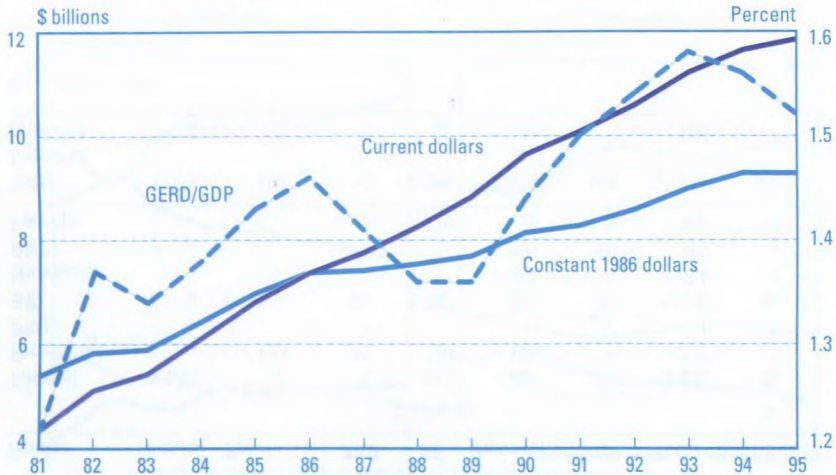
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Abbreviations

AMT	– advanced manufacturing technologies
BE	– business enterprise
CCPC	– Canadian-controlled private corporation
GDP	– gross domestic product
GERD	– gross domestic expenditure on research and development
MSTI	– Main Science and Technology Indicators
OECD	– Organisation for Economic Co-operation and Development
PNP	– private non-profit organization
PRO	– provincial research organization
R&D	– research and development
S&T	– science and technology

A publication of this type is a snapshot, freezing information at a particular point in time. New data are constantly becoming available. Data in tables and figures may not necessarily add to the totals shown due to rounding.

Canada's R&D Effort, Gross Domestic Expenditure on R&D (GERD), 1981–1995



Source: Statistics Canada.

Expenditures on R&D, by Performing and Funding Sectors, 1995

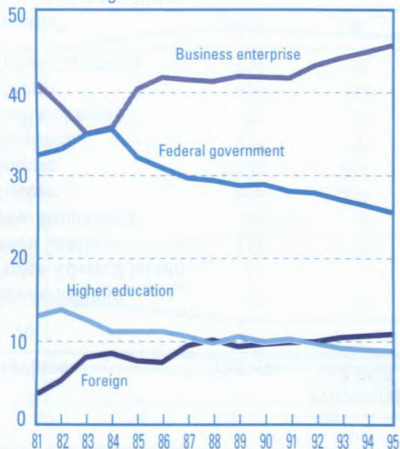
Funder	Performer						Total	Distribution
	Federal	Provincial	PRO	BE	University	PNP		
	(\$ millions)							%
Federal	1 548	2	6	562	889	25	3 032	26
Provincial	—	190	41	125	345	19	720	6
PRO	—	—	1	—	—	—	1	0
BE	9	—	23	5 042	313	31	5 418	46
University	—	—	—	—	1 054	—	1 054	9
PNP	—	—	—	—	255	60	315	3
Foreign	—	—	7	1 270	20	8	1 305	11
Total	1 557	192	78	6 999	2 876	143	11 845	100
Share of total (%)	13	2	1	59	24	1	100	

Source: Statistics Canada.

R&D in Canada, Funding and Performing Sectors, 1981–1995

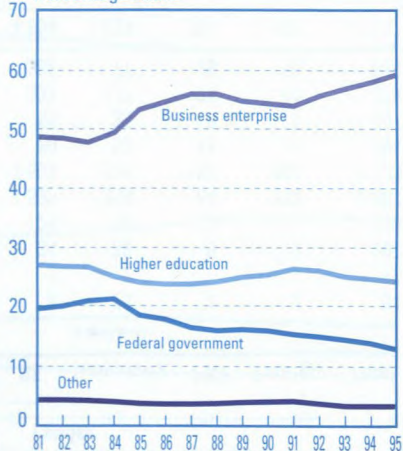
Funding

Percentage share



Performing

Percentage share



Source: Statistics Canada.

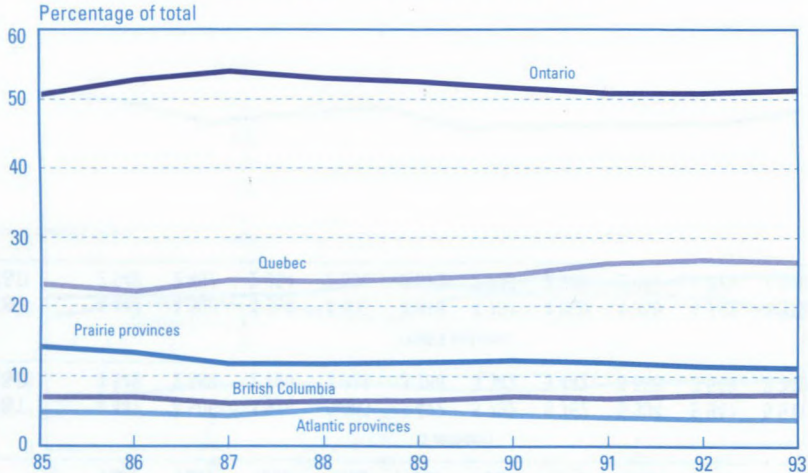
Expenditures on R&D, by Province and Funding Sector, 1993

Province	Funder						Total
	Federal	Provincial and PRO	BE	University	PNP	Foreign	
(\$ millions)							
Newfoundland	55	5	8	23	1	2	94
Prince Edward Island	12	—	3	2	—	—	17
Nova Scotia	113	9	34	39	5	7	207
New Brunswick	60	5	26	16	3	—	110
Quebec	666	234	1 539	294	64	165	2 962
Ontario	1 530	264	2 501	379	157	902	5 733
Manitoba	115	10	80	52	15	12	284
Saskatchewan	84	18	59	35	6	5	207
Alberta	156	93	337	121	24	44	775
British Columbia	244	58	368	71	29	56	826
Canada*	3 037	696	4 954	1 033	304	1 193	11 217

* Includes the Yukon and Northwest Territories.

Source: Statistics Canada.

Regional R&D Expenditures, 1985–1993



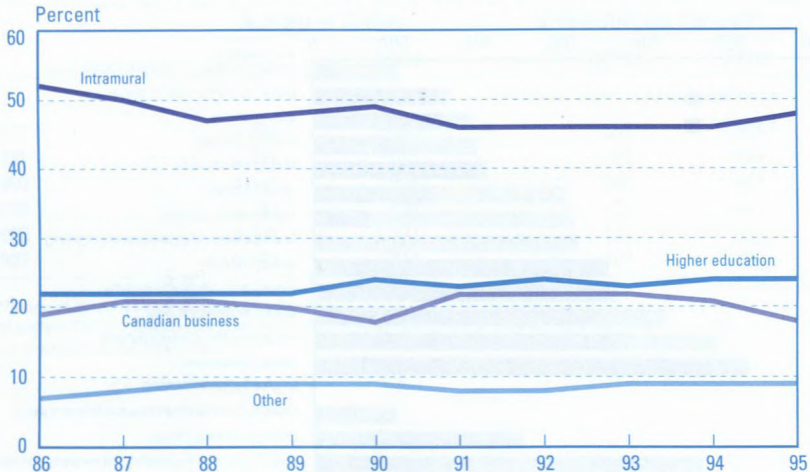
Source: Statistics Canada.

Federal Expenditures on S&T and R&D, 1986–1995

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
	(\$ millions)									
S&T	4 447	4 505	4 816	5 063	5 472	5 792	5 762	5 934	5 947	5 511
R&D	2 549	2 583	2 799	2 981	3 168	3 342	3 442	3 538	3 548	3 249
	(1986 \$ millions)									
S&T	4 447	4 303	4 394	4 406	4 618	4 751	4 669	4 759	4 742	4 319
R&D	2 549	2 467	2 554	2 594	2 673	2 742	2 789	2 837	2 829	2 546

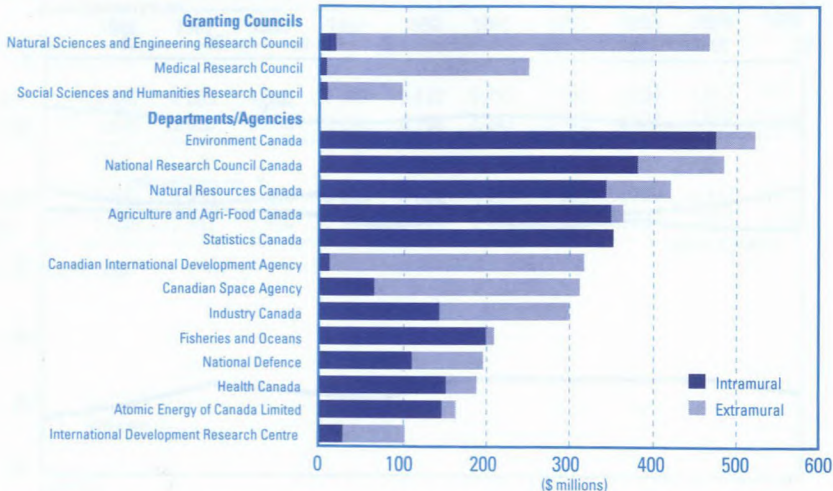
Source: Statistics Canada.

Federal Expenditures on R&D, by Performer, 1986–1995



Source: Statistics Canada.

Federal S&T Expenditures, by Department/Agency and Performing Sector, 1995–1996



Source: Statistics Canada.

Investment Tax Credits for R&D, 1987–1992

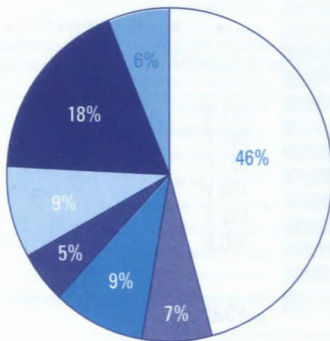
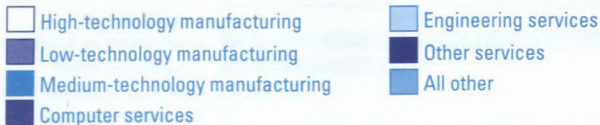
	Number of Claims		Amount Claimed*	
	CCPCs**	Other	CCPCs	Other
			(\$ millions)	
1992	6 096	2 065	359	804
1991	5 791	2 028	323	769
1990	4 891	1 946	262	680
1989	3 740	1 638	220	587
1988	3 308	1 727	187	597
1987	3 167	1 814	182	486

*The amount claimed is the amount requested by the taxpayer prior to an audit and/or assessment.

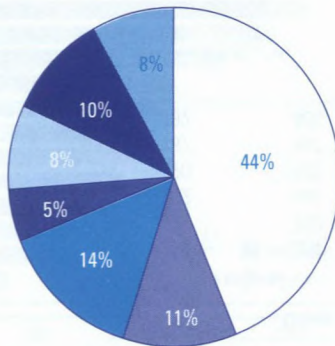
**A qualifying CCPC is a Canadian-controlled private corporation whose taxable income for the preceding year was \$200 000 or less.

Source: Revenue Canada, January 1996.

Industrial R&D Expenditures, by Industry Group, 1995 and 1988



1995 (\$6 999 million)



1988 (\$4 610 million)

Source: Statistics Canada.

Concentration of Industrial R&D Among Industries, 1991–1995

Selected Industries	1991	1992	1993	1994	1995
	(percentage of all industries)				
Telecommunication equipment	14	13	14	15	15
Aircraft and parts	11	11	11	10	11
Engineering and scientific services	8	9	9	9	9
Finance, insurance and real estate	4	6	7	6	6
Other electronic equipment	7	7	6	6	6
Pharmaceutical and medicine	5	5	6	6	6
Business machines	6	6	5	5	5
Computer and related services	4	5	5	5	5
Electric power	4	4	4	4	3
Other industries	35	35	34	34	33
	(\$ millions)				
All industries, total expenditures	5 439	5 845	6 374	6 743	6 999

Source: Statistics Canada.

Source of Funds for Industrial R&D, Industry Groups and Selected Industries, 1993

	Performing Company	Federal Government	Foreign	Other
			(%)	
Agriculture, fishing and logging	49	16	8	27
Mining and oil wells	60	4	5	31
Aircraft parts*	54	30	9	7
Telecommunication*	42	1	50	7
Electronics	64	19	8	9
Business machines	26	2	71	1
Chemicals**	83	1	14	2
Total manufacturing	62	9	24	5
Utilities	84	5	1	10

Source of Funds for Industrial R&D, Industry Groups and Selected Industries, 1993 (cont'd)

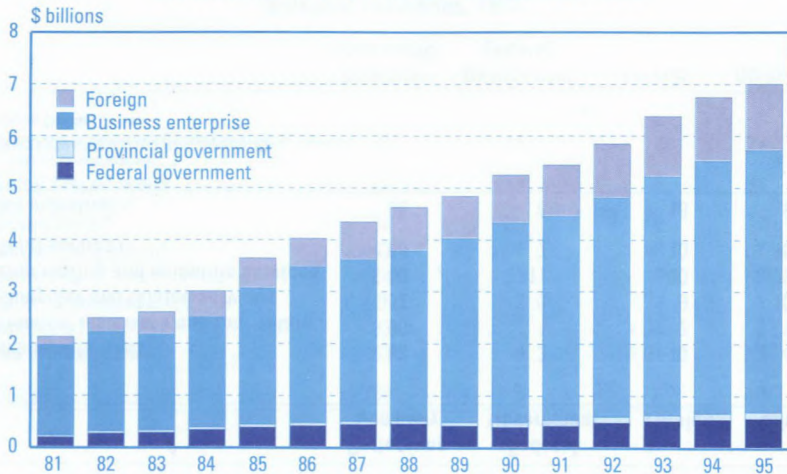
	Performing Company	Federal Government	Foreign	Other
		(%)		
Wholesale trade	83	3	10	4
Finance, insurance and real estate	96	1	2	1
Computer and related services	72	9	9	10
Engineering and scientific services	40	11	20	29
Total services	68	7	10	15
All industries	65	8	18	9

*Industry Canada estimate.

**Chemicals = Pharmaceuticals, medicine and other chemicals.

Source: Statistics Canada.

Industrial R&D, by Source of Funds, 1981–1995



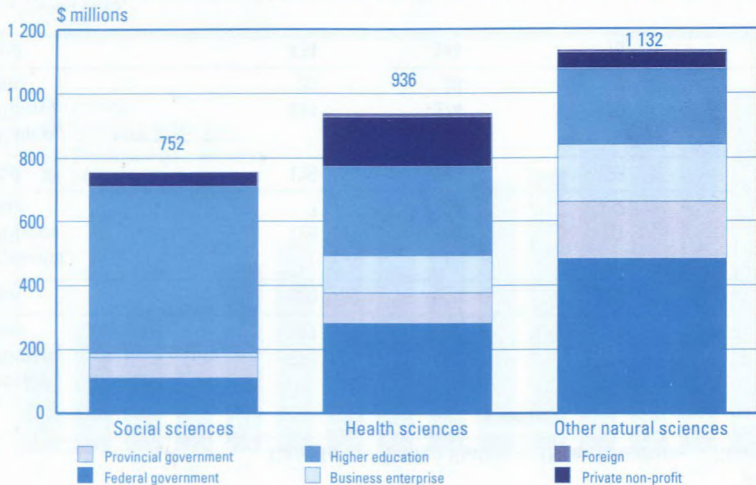
Source: Statistics Canada.

Trade in R&D Services, by Affiliation and Country of Control, 1993

	Canada	United States	Other Countries	All Countries
	(\$ millions)			
<i>Receipts</i>				
Affiliates	523	482	104	1 109
Other	37	62	4	103
Total	560	544	108	1 212
<i>Payments</i>				
Affiliates	129	756	31	916
Other	7	32	2	42
Total	136	788	33	957
<i>Balance</i>				
Affiliates	394	-274	73	193
Other	30	30	2	61
Total	424	-244	75	255

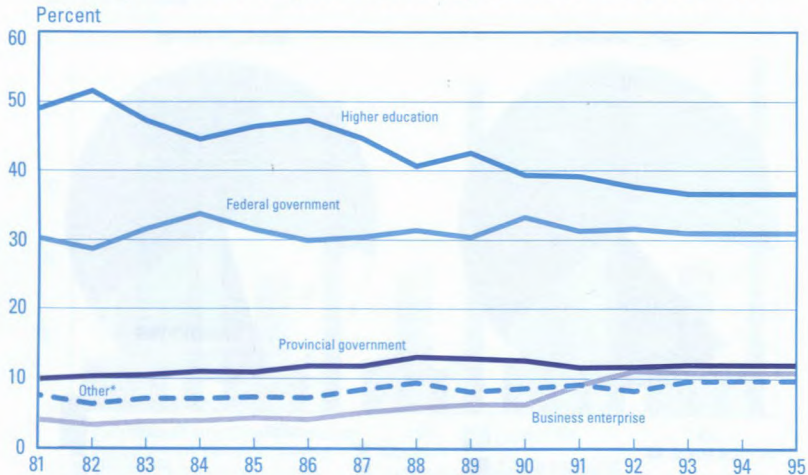
Source: Statistics Canada.

Higher Education R&D Expenditures, Major Fields, by Source of Funds, 1993



Source: Statistics Canada.

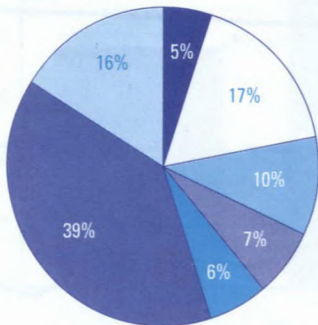
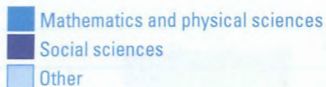
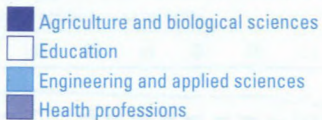
R&D Expenditures in Higher Education, by Source of Funds, 1981–1995



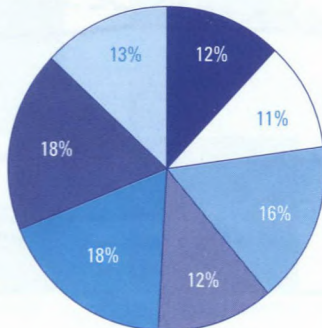
*Other is private non-profit and foreign.

Source: Statistics Canada.

Graduate Degrees by Field of Study, 1993



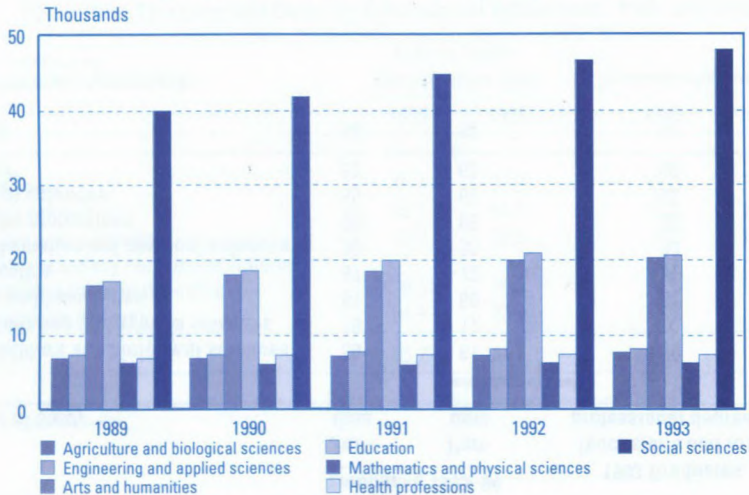
Master's (20 818)



Doctorate (3 356)

Source: Statistics Canada.

Bachelor's and First Professional Degrees, 1989–1993



Source: Statistics Canada.

Women in Undergraduate School

Field of Study	Enrolment, 1993-94		1993 Graduates (bachelor's and first professional degrees)
	Full- time	Part- time	
	(percentage of total)		
Agriculture and biological sciences	59	61	59
Engineering and applied sciences	19	17	16
Arts and humanities	61	69	64
Education	67	72	71
Mathematics and physical sciences	30	30	30
Health professions	69	89	72
Social sciences	55	62	56
Other*	57	62	66
Total	54	62	57

*Arts/sciences, general and "not reported."

Source: Statistics Canada.

Labour Force Participation and Unemployment Rates, Population 15 Years and Over, by Educational Attainment, 1985 and 1995

Educational Attainment	Labour Force Participation Rate		Unemployment Rate	
	1985	1995	1985	1995
	(%)		(%)	
0-8 years	40.2	27.9	13.0	15.0
High school*	66.4	61.3	12.3	12.0
Some post-secondary	72.8	70.5	9.5	10.1
Post-secondary certificate/diploma (includes trade certificates)	79.3	76.9	7.5	7.9
University degree	84.9	83.8	4.9	4.9
Total	65.2	64.8	10.5	9.5

* Includes persons who have completed their secondary education or have had at least some secondary education.

Source: Statistics Canada.

Selected International Comparisons, 1993

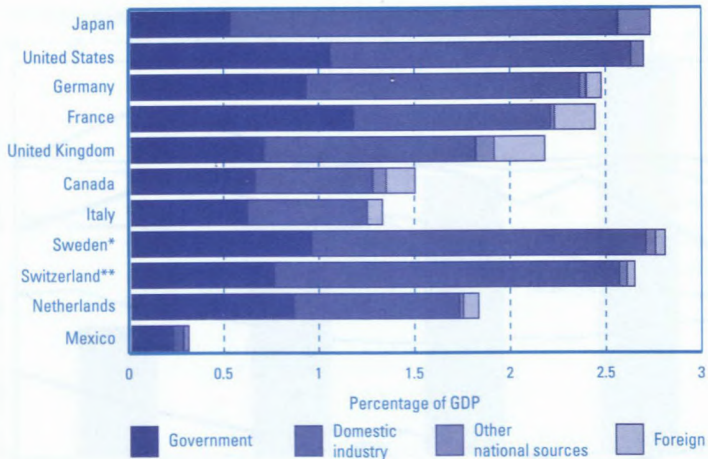
	GERD/ GDP	GERD	GERD per Capita	Researchers per 1 000 Labour Force
	(%)	(US\$ billions)	(US\$)	
Sweden	3.26	4.8	549	5.9*
Japan	2.73	69.1	554	8.0
Switzerland**	2.68	4.2	618	4.8
United States	2.66	166.3	645	7.4
Germany	2.48	37.1	458	6.1*
France	2.45	26.4	458	5.2*
United Kingdom	2.19	21.6	371	5.0
Netherlands	1.89	5.1	332	4.3
Canada	1.50	8.4	291	4.7*
Italy	1.31	13.2	236	3.0**
Mexico	0.32	2.0	22	0.3

*1991 data.

**1992 data.

Source: OECD, MSTI, December 1995.

GERD by Source of Funds, Selected Countries, 1993

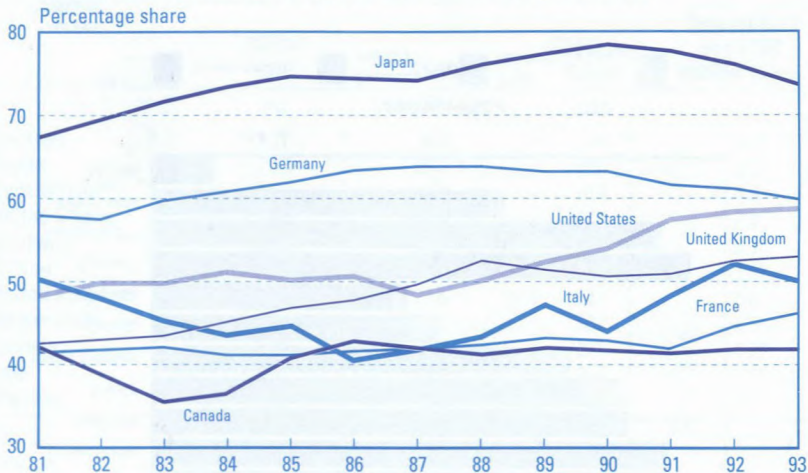


*1991 data.

**1992 data.

Source: OECD, MSTI, December 1995.

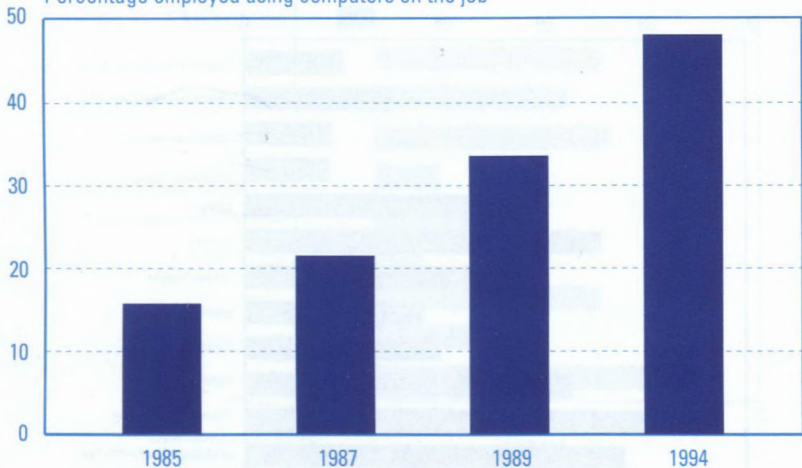
Industrial Funding of GERD — The G-7, 1981–1993



Source: OECD, MSTI, December 1995.

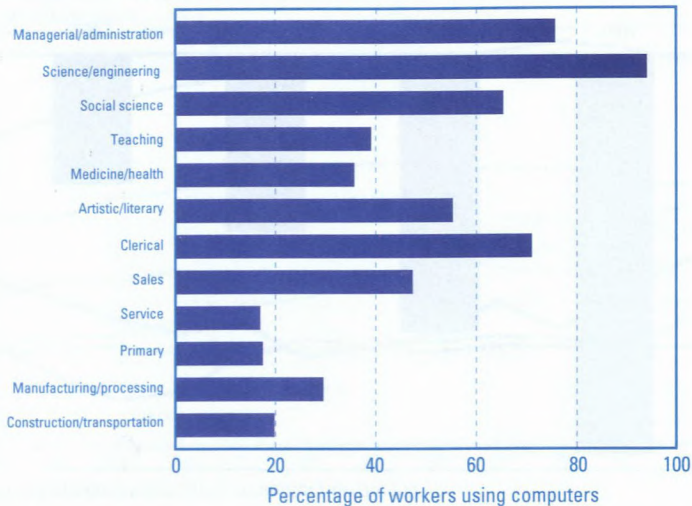
On-the-job Computer Use

Percentage employed using computers on the job



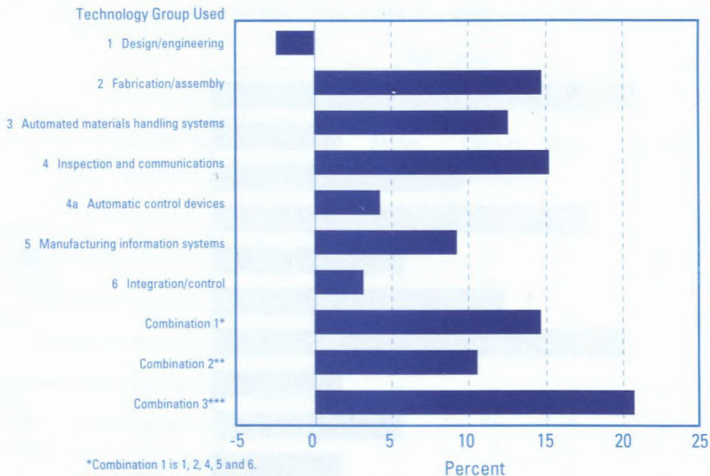
Source: Statistics Canada.

Computer Use at Work, by Occupation, 1994



Source: Statistics Canada.

Growth of Relative Productivity, Establishments Using AMT, 1981–1989



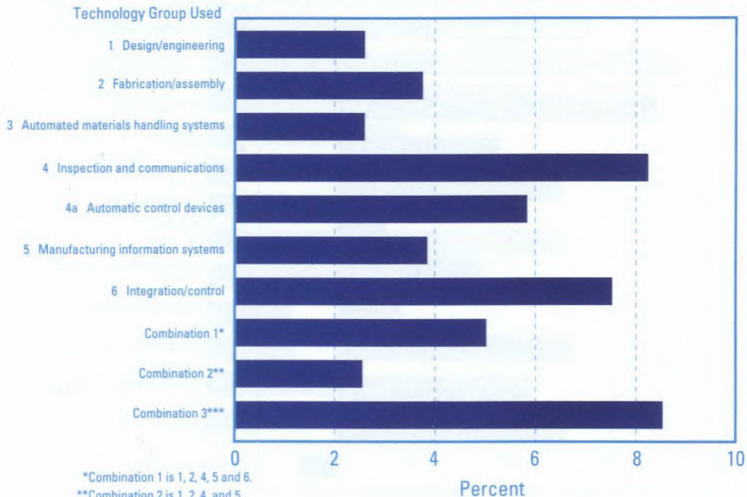
*Combination 1 is 1, 2, 4, 5 and 6.

**Combination 2 is 1, 2, 4 and 5.

***Combination 3 is 2, 4a and 6.

Source: Statistics Canada.

Growth of Relative Wages, Establishments Using AMT, 1981-1989



*Combination 1 is 1, 2, 4, 5 and 6.

**Combination 2 is 1, 2, 4 and 5.

***Combination 3 is 2, 4a and 6.

AMT Used, by Employment Size, Canada and the United States, 1989 and 1993

Employment Size	AMT Used							
	0		1		2 to 4		5 or more	
	Canada	United States	Canada	United States	Canada	United States	Canada	United States
(percentage of establishments)								
1989								
20 to 99	50	33	18	18	24	34	8	14
100 to 499	19	11	15	12	36	37	30	40
500 or more	2	2	2	2	25	13	71	83
All sizes	42	26	17	16	26	34	15	25
1993								
20 to 99	30	25	23	17	33	38	14	20
100 to 499	15	6	5	7	47	34	33	53
500 or more	6	3	0	2	5	10	89	86
All sizes	27	19	19	14	34	36	20	31

Source: Statistics Canada.

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