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1988

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SELECTED SCIENCE AND TECHNOLOGY STATISTICS

S&T Statistics and Analysis Division

Tel.: (613) 998-0486

Fax: (613) 991-0363

**Data from Statistics Canada and/or
OECD/STIID**

**An explanation of abbreviations can be found on last page
August 1988**

Federal S&T Expenditures

	82/83	83/84	84/85	85/86	86/87	87/88	88/89e
	(\$ billions)						
S&T Actual \$	3.07	3.48	3.87	3.93	4.18	4.17	4.41
R&D Actual \$	1.93	2.21	2.49	2.52	2.60	2.61	2.72
S&T 1981 \$	2.83	3.05	3.29	3.24	3.37	3.22	3.23
	(per cent)						
Per cent of all non- statutory expenditures	10.1	10.2	10.5	10.7	11.2	11.0	10.8

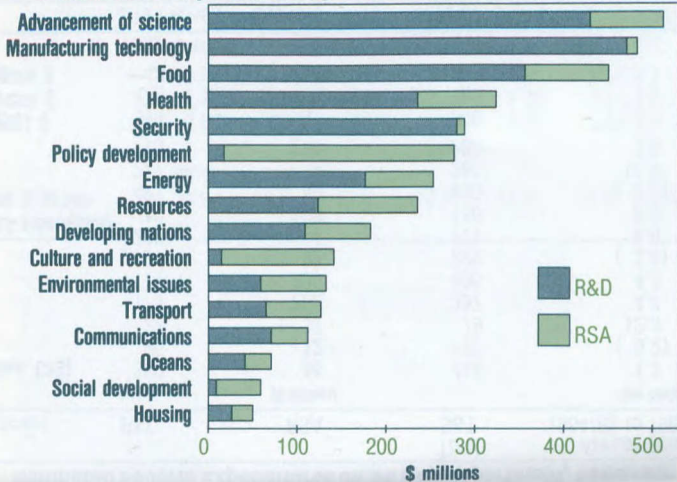
Estimated Federal Expenditures on S&T by Department, 1988/89*

Department	R&D	RSA	Total S&T	Annual Growth 1984/85 to 1988/89**
	(\$ millions)			(per cent)
AGR (incl. CFS)	369	46	415	1.7
AECL	95	12	107	(8.2)
CIDA	22	57	79	12.3
EMR	175	222	397	4.7
ENV	71	335	405	4.3
F&O	131	98	229	(3.6)
NDEF	268	4	272	8.6
NHW	41	109	150	6.0
NRC	427	52	480	(0.2)
RIE	277	4	281	12.9
STC	10	271	282	3.6
NSERC	314	41	356	3.3
MRC	176	7	183	3.9
SSHRC	48	26	73	3.7
Others	297	402	699	n/a
Total	2,721	1,686	4,407	3.3

*Columns may not add due to rounding.

**Negative figures are shown in parentheses.

Federal S&T Expenditures by Area of Application, 1988/89



Federal S&T Expenditures by Province, 1986/87

Province	Total	Expenditure Per Capita	Total Extramural*	Extramural Per Capita
	(\$ millions)	(\$)	(\$ millions)	(\$)
Newfoundland	66	116	16	28
P.E.I.	16	126	7	55
Nova Scotia	158	181	40	46
New Brunswick	66	93	34	48
Quebec	568	90	339	54
National Capital Region	1,374	n.a.**	116	n.a.
Ontario	744	87	393	46
Manitoba	151	142	40	38
Saskatchewan	81	80	33	33
Alberta	166	70	65	27
British Columbia	281	97	133	46
Canada	3,695	146	1,217	48

* Federal Government expenditures for S&T performed outside of government labs — consists of payments to industries, universities, private non-profit institutions, provincial and municipal governments, and foreign performers.

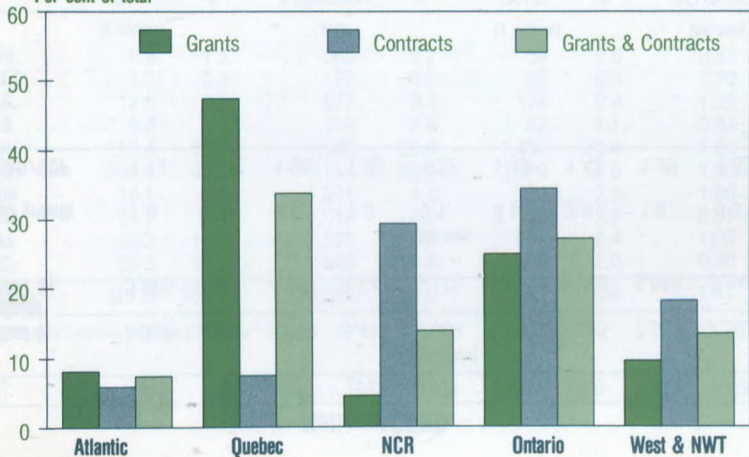
** Not calculated; if NCR expenditures are assigned to Quebec and Ontario, the per capita expenditures are \$90 and \$230 respectively.

Federal Government Expenditures by Performing Sector, 1982/83 to 1988/89

Sector of performance	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89e
	(\$ millions)						
Intramural	2,039	2,278	2,531	2,544	2,761	2,697	2,734
Industry	402	452	515	559	575	588	734
Universities	460	530	592	592	604	628	658
Non-profit institutions	24	40	37	35	37	39	40
Other	54	76	77	70	69	74	80
Foreign	96	108	122	129	135	142	161
Total	3,075	3,484	3,874	3,929	4,181	4,168	4,407

Federal Government Grants and Contracts for R&D to Industry, 1986/87

Per cent of total



National GERD

	1980	1981	1982	1983	1984	1985	1986	1987e	1988e
	(\$ millions)								
Actual \$	3,507	4,331	5,090	5,412	6,089	6,806	7,185	7,631	7,970
Deflated (1981 \$)	3,886	4,331	4,683	4,743	5,173	5,620	5,785	5,888	5,843
	(per cent)								
Real growth	7.8	11.5	8.1	1.3	9.1	8.6	2.9	1.8	0.3
GERD/GDP	1.13	1.22	1.36	1.33	1.37	1.42	1.42	1.39	1.35

R&D by Province, 1986

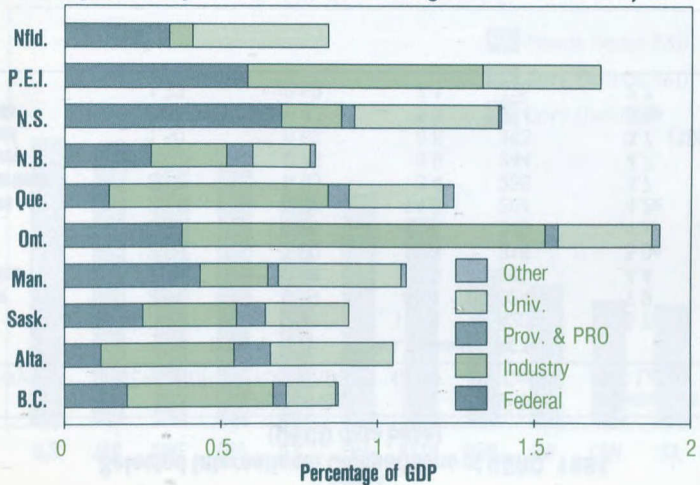
	GDP	%	Population	%	GERD	%	GERD/GDP
	(\$ billions)		('000)		(\$ millions)		(per cent)
Nfld.	6.8	1.3	568	2.2	59	0.8	0.87
P.E.I.	1.5	0.3	127	0.5	25	0.3	1.70
N.S.	12.6	2.5	873	3.4	174	2.4	1.38
N.B.	9.8	1.9	710	2.8	82	1.1	0.83
Que.	119.4	23.5	6,540	25.8	1,497	20.8	1.25
Ont.	204.4	40.2	9,114	35.9	3,879	54.0	1.90
Man.	19.1	3.8	1,071	4.2	202	2.8	1.06
Sask.	17.2	3.4	1,010	4.0	157	2.2	0.91
Alta.	58.3	11.5	2,375	9.4	601	8.4	1.03
B.C.	56.5	11.1	2,889	11.4	506	7.0	0.90
Canada*	507.8	100.0	25,354	100.0	7,185	100.0	1.41

*Includes the Yukon and North West Territories

Expenditures on R&D by Funding and Performing Sectors, (NSE and SSH), 1988e

Funder	Performer						Total
	Fed.	Prov.	PRO	BE	Univ.	PNP	
	(\$ millions)						
Fed.	1,320	-	8	445	604	30	2,407 (30 %)
Prov.	-	154	45	51	238	22	510 (6 %)
PRO	-	-	1	-	-	-	1 -
BE	-	-	18	3,336	61	3	3,418 (43 %)
Univ.	-	-	-	-	814	-	814 (10 %)
PNP	-	-	-	-	163	47	210 (3 %)
Foreign	-	-	2	595	13	-	610 (8 %)
Total	1,320 (17 %)	154 (2 %)	74 (1 %)	4,427 (56 %)	1,893 (24 %)	102 (1 %)	7,970

Funding of R&D by Province as a Percentage of Provincial GDP, 1986

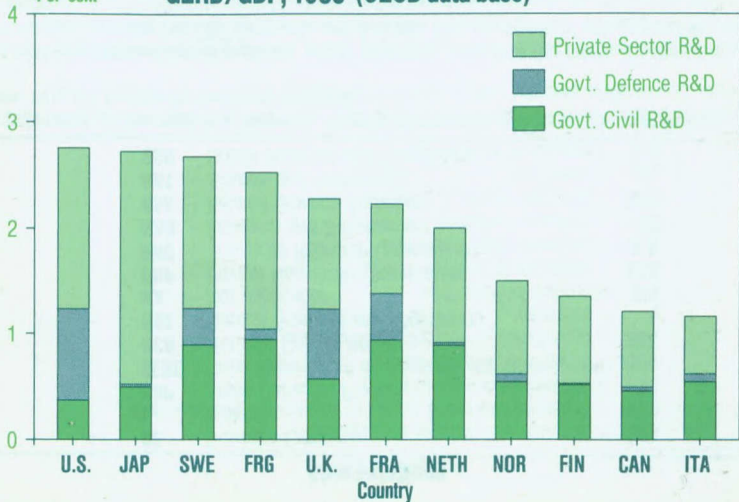


Selected International Comparisons of GERD, 1985 (OECD data base)

Country	GERD/GDP	Public R&D Funds/GDP	GERD	GERD per Capita	Researchers per 1000 Labour Force
	(per cent)		(U.S. \$ billions)	(US \$)	
U.S.	2.83	1.41	111.8	420	6.7
Japan	2.81	0.59	40.1	324	7.9
Sweden	2.78	0.94	2.9	361	4.4
FRG	2.66	1.00	19.8	318	5.0e
U.K.	2.33	1.01	14.4	239	n.a.
France	2.31	1.22	14.6	284	4.2e
Netherlands	2.11	0.95	3.4	236	3.7
Norway	1.63	0.75	0.9	244	4.7
Finland	1.50	0.63	0.8	163	3.7 (1983)
Canada	1.38	0.67	5.3	214	3.0e
Italy	1.33	0.69	7.1	125	2.7

Per cent

GERD/GDP, 1985 (OECD data base)



Abbreviations

BE	- Business Enterprise
e	- Estimate
GDP	- Gross Domestic Product
GERD	- Gross Expenditure on Research and Development
NCR	- National Capital Region
NSE	- Natural Sciences and Engineering
n.a.	- Not applicable
PNP	- Private Non-Profit Organization
PRD	- Provincial Research Organization
R&D	- Research and Development
RSA	- Related Science Activities
S&T	- Science and Technology
SSH	- Social Sciences and Humanities

A publication of this type is a snapshot, freezing information at a particular point in time. New data are constantly becoming available.

As with any compendium of numbers, errors inevitably creep into the tables. Readers are encouraged to make the S&T Statistics and Analysis Division aware of any inconsistencies or errors.

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