

	University							
1	Dalhousie University	2	University of Regina	3	University of Toronto	4	University of Ottawa	5
								Earth & Ocean Sciences, U. of British Columbia
2	Country (U.S.,1; Canada, 2)	2	2	2	2	2	2	2
1	metals economic Geology	1		1	1	1	1	1
	general economic geology	4		2	1	1	1	2
	general geochemistry	3	3	2	1		2	1
	stable isotope geochemistry			4	2		1	
	exploration geochemistry			4	2		2	
	analytical geochemistry			4	2	3	2	
	petrology			1	3		3	
	general petrology			1	3	4	3	
	mineralogy			3	3		2	
	volcanology			2	2		3	
	minerals economics			4	4		3	
	geostatistics			4	4		3	
	other-structural geology							
	other-geochronology	2				2		
	other-stratigraphy							
	other--fluid inclusions		2					
	other??							
2	PhD year	1974	1992	1993	1977	1983	1991	1983
3	Industry years	4	0	6	0	14	0	15
4	Year of faculty hire	1973	2002	1999	1983	1992	1993	1983
5	All Earth Science					no answer		
	UG majors 1981-82	200						
	UG majors 1991-92	120					40	
	UG majors 2001-02	70	20	75	36		30	
	MS candidates 1981-82	20						
	MS candidates 1991-92	20			26		40	
	MS candidates 2001-02	11	10	15	21		40	
	PhD candidates 1981-82	15						
	PhD candidates 1991-92	20			18		10	
	PhD candidates 2001-02	12	2	25	14		10	5
	Economic Geology							
	MS candidates 1981-82	3						
	MS candidates 1991-92	2			5		5	
	MS candidates 2001-02	1	0	0	4		5	
	PhD candidates 1981-82	2						
	PhD candidates 1991-92	7			0		1	
	PhD candidates 2001-02	1	0	10	4		2	
	Geoscience Faculty							
	Total 1981-82	16			11		14	
	Total 1991-92	12			11		15	
	Total 2001-02	14	7	15	11		13	
	Mineral Resources 1981-82	2			2		1	
	Mineral Resources 1991-92	1			3		1	
	Mineral Resources 2001-02	1	1	3	3	2	2	
6	Courses in Econ Geology							
	intro econ geol	81-82	4		1	1	2	1
	intro econ geol	91-92	3		1	1	2	1
	intro econ geol	2001-02	2	0	2	1	1	1
	advanced economic geology	81-82	1		1	1	1	1
	advanced economic geology	91-92	1		1	1	1	1
	advanced economic geology	2001-02	0	1	2	1	1	1
	field trips/training in EG	81-82	4		0	1	0	1
	field trips/training in EG	91-92	2		0	1	0	1
	field trips/training in EG	2001-02	1	0	1	0	1	0
7	Percentage of EG courses you teach							
	5 year period	1987-1992	50		33			20
	5 year period	1997-2002	35	0	25	33	25	100
	Other courses you teach					no answer		
	Introductory geology	1987-1992	1					0
	Introductory geology	1997-2002	1	0	1		1	0
	general geology	1987-1992	1					0
	general geology	1997-2002		0	0		0	0

	mineralogy	1987-1992							0
	mineralogy	1997-2002		0	0		0	0	0
	petrology	1987-1992							0
	petrology	1997-2002		0	1		0	0	0
	field geology	1987-1992							0
	field geology	1997-2002		0	1		1	0	1
	environmental geology	1987-1992	1						0
	environmental geology	1997-2002	1	0	0		0	0	0
	hydrogeology	1987-1992	1						0
	hydrogeology	1997-2002		1	0		0	0	0
	stratigraphy	1987-1992							0
	stratigraphy	1997-2002		0	0		0	0	0
	geomorph/surficial processes	1987-1992							0
	geomorph/surficial processes	1997-2002		0	0		0	0	0
	other—structural geology	1987-1992							0
	other—structural geology	1997-2002		0	0		0	0	0
	other—tectonics	1987-1992							0
	other—tectonics	1997-2002		0	0		0	0	0
	other—geochemistry	1987-1992							0
	other—geochemistry	1997-2002		0	0		0	0	0
8	Industry partnerships								
	no partnerships								
	limited partnerships		1	1					1
	active partnerships				1	1	1	1	
9	Research funding (non-univ)								
	% federal		40	70	58	45	40	60	50
	% state/other government		10	30	8	40	30	20	45
	% private industry		50	0	33	10	30	20	0
	% international agencies			0	3	5	0	0	5
	Total funds per year (US\$)								
	total research funds	1987-1992	80,000			35,000			
	total research funds	1997-2002	90,000	150,000	80,000	72,000	35,000	35,000	
	no. of grad students/yr	1987-1992	5			2			2
	no. of grad students/yr	1997-2002	5	1	2.5	2	2	4	2
10	MS-PhD hires (1992-2002)			none yet					
	mining industry		3		0	4	7	3	2
	federal & state government		2		0	1	0	3	0
	academia		3		0	0	1	0	2
	environmental company		1		1	2	1	0	0
	petroleum company		0		0	0	0	0	0
	Returned to Univ. for a new degree		1		1	0	1	2	2
	IT-financial, other degrees		0		0	0	0	0	0
11	Age								
	What is your age		62	39	42	53	49	41	
	expected retirement year		2005	2025	2025	2013	2015	2026	2006
	replacement	yrs to retire	2	22	22	10	12	23	3
	a) would not		1						
	b) almost certainly not								
	c) probably not						1		
	d) probably would			1	1	1		1	
	e) would								1
12	faculty retired not replaced			no answer			no answer	no answer	
	How many		2						
	Details		1 geo-chemist 1 econ geologist				geology, Univ Montreal geology, Concordia Univ		
	Res\$/student 1987-92		16,000		17,500				0
	Res\$/student 1997-02		18,000	150,000	32,000	36,000	17,500	8,750	0

			8	9	10	11	12	13	14
	University		Univ Quebec a Montreal	Univ of Washington	Univ Texas, Austin	Iowa State Univ	New Mexico Tech	Idaho State Survey, Univ of Idaho	Colorado School of Mines
	Country (U.S.,1; Canada, 2)		2	1	1	1	1	1	1
1	metals economic Geology		1	1		1	1	2	1
	general economic geology		2	4		3	3	1	2
	general geochemistry						2		3
	stable isotope geochem					3	1		3
	exploration geochemistry						3	3	
	analytical geochemistry						2		
	petrology				2		2	4	
	general petrology						3		
	mineralogy					3	1		
	volcanology						4		3
	minerals economics			3			4		
	geostatistics						4		
	other-structural geology		3		1				
	other-geochronology								
	other-stratigraphy			2					
	other--fluid inclusions								
	other??								
2	PhD year		1982	1964	1981	1984	1983	1982	1983
3	Industry years		8	1	0	2	0	10	7.5
4	Year of faculty hire		1981	1963	1981	1983	1983	1989	2002
5	All Earth Science								
	UG majors 1981-82		140	100	700	80	70		
	UG majors 1991-92		100	70	180	20	50	15	
	UG majors 2001-02		100	75	150	25	60	15	
	MS candidates 1981-82		6	25	150	25	80		
	MS candidates 1991-92		25	20	100	12	60		
	MS candidates 2001-02		25	25	70	21	50	4	
	PhD candidates 1981-82		0	25	75	10	20		
	PhD candidates 1991-92		5	20	75	5	25		
	PhD candidates 2001-02		5	25	80	4	21	2	
	Economic Geology								
	MS candidates 1981-82		0	2	4	1	20		
	MS candidates 1991-92		10	1	2	3	15	1	
	MS candidates 2001-02		10	0	2	7	12	0	
	PhD candidates 1981-82		0	2	2	1	4		
	PhD candidates 1991-92		2	1	1	2	4	0	
	PhD candidates 2001-02		2	0	2	1	2	0	
	Geoscience Faculty						no answer	no answer	
	Total 1981-82		same	30	25	13			
	Total 1991-92		same	30	27	12			
	Total 2001-02		same	30	25	11			
	Mineral Resources 1981-82		same	1	1	3			
	Mineral Resources 1991-92		same	1	1	2			
	Mineral Resources 2001-02		same	1	1	1	2	1	
6	Courses in Econ Geol								
	intro econ geol	81-82	1	2	1	1	1	1	
	intro econ geol	91-92	3	2	1	2	1	1	
	intro econ geol	2001-02	3	1	1	1	1	0.5	
	advanced econ geol	81-82	0	2	1	2	2	0	
	advanced econ geol	91-92	1	1	1	2	5	0	
	advanced econ geol	2001-02	4	0	1	1	5	0	
	field trips/training in EG	81-82	0	1	0	1	2	1	
	field trips/training in EG	91-92	2	1	1	1	3	0	
	field trips/training in EG	2001-02	4	0	1	1	2	1	
7	Percentage of EG courses you teach								
	5 year period	1987-1992	80	85	0	70	25	100	
	5 year period	1997-2002	75	30	0	20	12	100	
	Other courses you teach								
	introductory geology	1987-1992	0		1			none	
	Introductory geology	1997-2002	0	1					
	general geology	1987-1992	0						
	general geology	1997-2002	1	1					
	mineralogy	1987-1992	0				1	1	

	mineralogy	1997-2002	0			1	1	
	petrology	1987-1992	0			0		
	petrology	1997-2002	0			1		
	field geology	1987-1992	1	1	0.4	1	1	
	field geology	1997-2002	1	1		1	1	
	environmental geology	1987-1992	0				1	
	environmental geology	1997-2002	0					
	hydrogeology	1987-1992	0					
	hydrogeology	1997-2002	0					
	stratigraphy	1987-1992	0					
	stratigraphy	1997-2002	0	1				
	geomorph/surficial processes	1987-1992	0					
	geomorph/surficial processes	1997-2002	0					
	other—structural geology	1987-1992	0		1			
	other—structural geology	1997-2002	0		1			
	other—tectonics	1987-1992	0		1			
	other—tectonics	1997-2002	0		1			
	other—geochemistry	1987-1992	0					
	other—geochemistry	1997-2002	0					
8	Industry partnerships							
	no partnerships							
	limited partnerships		1		0.5	1	1	
	active partnerships		1		1	0.5		
9	Research funding (non-univ)							
	% federal		25		50	0	70	70
	%state/other government		50	50		80		10
	%private industry		25	50	50	10	30	20
	%international agencies		0			10		
	Total funds per year (US\$)							
	total research funds	1987-1992	200,000	10,000	50,000	140,000	30,000	2,000
	total research funds	1997-2002	10,000	1,000	150,000	120,000	25,000	0
	no. of grad students/yr	1987-1992	5	2	5	3	4	1
	no. of grad students/yr	1997-2002	3	1	5	4	4	0
10	MS–PhD hires (1992-2002)							
	mining industry		15	1	1	3	10	4
	federal & state government		1	0	1	2	4	0
	academia		1	0	3	0	3	0
	environmental company		1	0	1	10	20	2
	petroleum company		0	0	12	0	10	0
	Returned to Univ. for a new degree		1	1	2	0	5	2
	IT-financial, other degrees		0	0		0	0	0
11	age							
	What is your age		50	68	48	47	48	49
	Expected retirement year		2017	2004	2020	2021	2012	2017
	Replacement	yrs to retire	14	1	17	18	9	14
	a) would not					1		
	b) almost certainly not			1			1	
	c) probably not							
	d) probably would		1				1	
	e) would							
12	faculty retired not replaced					no answer	no answer	
	How many		2.5					
	details		Univ Montréal, Concordia Univ, geol depts. in Montréal	1-met pet,1 igneous pet; 0.5 paleont				
	Res\$/student 1987-92		40,000	5,000	10,000	46,667	7,500	2,000
	Res\$/student 1997-02		3,333	1,000	30,000	30,000	6,250	

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		15 University School of Mines	16 Colorado University of Oregon	17 Arizona	18 University of Idaho	19 University of Nevada, Las Vegas	20 Harvard University	21 South Dakota & School of Mines Tech
	University							
	Country: U.S., 1; Canada, 2	1	1	1	1	1	1	1
1	Metals economic geology	2	1	1	2	1	1	1
	General economic geology	1	2	1		2	1	2
	general geochemistry	4	1	2	1	3	2	
	stable isotope geochem		3	4			2	
	exploration geochemistry		4	1	2		1	
	analytical geochemistry		4	1	2		4	
	petrology		4				4	3
	general petrology		4	2			3	
	mineralogy		4	2			3	
	volcanology		3	4			2	
	minerals economics		4	4			2	
	geostatistics			4			4	
	other-structural geology							
	other-geochronology							
	other-stratigraphy	3						
	other--fluid inclusions							
	other??							
2	PhD year							
3	Industry years	1983	1977	1983	1985	1990	1963	1978
4	Year of faculty hire	20	5	0	0	11	9	2
5	All Earth Science	1996	1979	1983	1985	1990	1963	1978
	UG majors 1981-82	80	126	80				200
	UG majors 1991-92	120	54	80	60			80
	UG majors 2001-02	70	83	80	80			90
	MS candidates 1981-82	50	40	40		0	8	35
	MS candidates 1991-92	85	13	40	30	9	8	28
	MS candidates 2001-02	75	11	40	30	4		25
	PhD candidates 1981-82	5	24	40		0	8	15
	PhD candidates 1991-92	20	24	40	10	0	8	7
	PhD candidates 2001-02	25	17	40	10	0		7
	Economic Geology							
	MS candidates 1981-82	30	6	6		0	2.5	8
	MS candidates 1991-92	15	2	6	5	1	2.5	8
	MS candidates 2001-02	20	1	6	2	4		5
	PhD candidates 1981-82	1	2	6		0	2.5	0
	PhD candidates 1991-92	3	2	6	0	0	2.5	2
	PhD candidates 2001-02	5	1	6	0	0		1
	Geoscience Faculty	no answer	no answer	no answer	no answer	no answer		
	Total 1981-82							12
	Total 1991-92							8
	Total 2001-02							9
	Mineral Resources 1981-82							3
	Mineral Resources 1991-92							1
	Mineral Resources 2001-02	3	1		1	1		1
6	Courses in econ geology			no answer				
	Intro Econ Geol	81-82	1	1	2	0	3	1
	Intro Econ Geol	91-92	1	2	2	2	2	1
	Intro Econ Geol	2001-02	1	2	1	2	1	2
	Advanced Economic Geology	81-82	1	1	2	0	3	4
	Advanced Economic Geology	91-92	2	1	1	0	3	4
	Advanced Economic Geology	2001-02	3	0	1	0	0	4
	Field Trips/training in EG	81-82	1	0	2	0	1	4
	Field Trips/training in EG	91-92	1	0	1	4	1	4
	Field Trips/training in EG	2001-02	2	0	1	4	0	5
7	Percentage of EG courses you teach							
	5 year period	1987-1992	n/a	50	0	50	67	75
	5 year period	1997-2002	90	50	0	0	25	75
	Other courses you teach							
	introductory geology	1987-1992		1		1	0	1
	introductory geology	1997-2002	0	1		1		1

general geology	1987-1992			1		0	0	0
general geology	1997-2002	0		1		5		0
mineralogy	1987-1992					0	0	0
mineralogy	1997-2002	0				0		0
petrology	1987-1992			1	1	0	0	0
petrology	1997-2002	0		1		0		0
field geology	1987-1992					1	0	0
field geology	1997-2002	0				2		1
environmental geology	1987-1992		1			0	1	0
environmental geology	1997-2002	0	1		1	0		0
hydrogeology	1987-1992					1	0	0
hydrogeology	1997-2002	0				1	0	0
stratigraphy	1987-1992					0	0	0
stratigraphy	1997-2002	0				0		0
geomorph/surficial processes	1987-1992					0	0	0
geomorph/surficial processes	1997-2002	0				0		0
other—structural geology	1987-1992					0	0	0
other—structural geology	1997-2002	0				0		0
other—tectonics	1987-1992					0	0	0
other—tectonics	1997-2002					0		0
other—geochemistry	1987-1992				1	0	0	0
other—geochemistry	1997-2002				1	1		0
8 Industry partnerships								
no partnerships								1
limited partnerships		0.5			1			
active partnerships		1	0.5	1		1	1	
9 Research funding (non-univ)								
% federal		50	80	90	75	95	25	80
%state/other government		7	0	10	10	0	0	20
%private industry		40	20	0	10	5	75	0
%international agencies		3	0	0	5	0	0	0
Total funds per year (US\$)								retired '95
total research funds	1987-1992		30,000	100,000	100,000	16,000		30,000
total research funds	1997-2002	200,000	50,000	150,000	250,000	350,000		15,000
number of grad students/year	1987-1992	n/a	3	6	2.5	1		4
number of grad students/year	1997-2002	12	2	6	2.5	4.5		2
10 MS–PhD hires (1992-2002)								
Mining industry		1	4	y	2	1	1	3
federal & state government		2	1		0	2	0	3
academia		1	0	y	0	0	0	1
environmental company		3	2		2	2	0	1
petroleum company		3	0	y	0	0	0	0
Returned to Univ. for a new degree		3	0		0	1	6	4
IT-financial, other degrees		3	0		0	0	0	0
11 age				no answer				
What is your age		48	53		44	54		54
Expected retirement year			2014		2025			2012
Replacement	yrs to retire		11		22			9
a) would not							1	
b) almost certainly not								1
c) probably not			1		1	0.5		
d) probably would		1				0.5		
e) would								
12 faculty retired not replaced				no answer	no answer			
How many								
details							replaced by structural geologist	entering EG: 1-2 stud./yr, formerly 4-5/yr
Res\$/student 1987-92			10,000	16,667	40,000	16,000		7,500
Res\$/student 1997-02		16,667	25,000	25,000	100,000	77,778		7,500

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			22 Kutztown Univ of Pennsylvania	23 Univ of Alaska, Fairbanks	24 Univ of Arizona	25 Univ of California, Riverside	26 Univ of Cincinnati	27 Colorado State Univ	28 Univ. of Calif. Davis
	University								
Country: U.S.,1; Canada, 2			1	1	1	1	1	1	1
1 Metals economic geology			1	4			1	3	2
General economic geology			1	3	1	2	2		
general geochemistry			2	4	3	1	2	2	2
stable isotope geochem			2	2	4		1		1
exploration geochemistry			2	3			4		
analytical geochemistry			3	4			2		
petrology			2	4		3	4	4	
general petrology			2	4	2		4		
mineralogy			2	4		4	4		
volcanology			4	1			4		
minerals economics			4	1			4		
geostatistics			4	2			4		
other—structural geology							4		
other—geochronology					3		4		
other—stratigraphy							4		
other—fluid inclusions							4		
other??									
2 PhD year			1998	1980	1981	1984	1972	1980	1983
3 Industry years			4	1	0	0	2	0	1
4 Year of faculty hire			1999	1982	1983	1984	1972	1982	1996
5 All Earth Science									
UG majors 1981-82			18	50	100	20	50	250	
UG majors 1991-92			21	30	80	30	40	45	
UG majors 2001-02			30	35	60	35	40	65	75
MS candidates 1981-82			0	70	50	20	15		
MS candidates 1991-92			0	60	40	15	15	20	
MS candidates 2001-02			0	50	30	15	15	20	20
PhD candidates 1981-82			0	15	50	5	10		
PhD candidates 1991-92			0	20	40	10	10	5	
PhD candidates 2001-02			0	25	30	20	10	8	15
Economic Geology									
MS candidates 1981-82			0	5	20	4	2	10	
MS candidates 1991-92			0	5	15	3	2	5	
MS candidates 2001-02			0	4	8	2	1	1	1
PhD candidates 1981-82			0	0	10	0	2		
PhD candidates 1991-92			0	2	10	0	2	1	
PhD candidates 2001-02			0	2	12	0	0	0	0
Geoscience Faculty									
Total 1981-82			3.5	30	22	9	14	10	
Total 1991-92			3.5	26	28	10	13	9	
Total 2001-02			4.5	30	25	13	13	8	19
mineral resources 1981-82			0	1	5	1	2	2	
mineral resources 1991-92			0	1	5	1	1	2	
mineral resources 2001-02			1	1	4	1	1	1	0
6 Courses in econ geology									
intro econ geol	81-82	0	1	2	1	1	1	2	
intro econ geol	91-92	0	1	2	1	0	0	2	
intro econ geol	2001-02	0	1	2	0	0	0	0	1
advanced econ geol	81-82	0	1	6	1	2	2	2	
advanced econ geol	91-92	0	2	5	0	1	2		
advanced econ geol	2001-02	0	1	4	1	1	0	0	0
field trips/training in EG	81-82	0	1	1	1	1	1	1	
field trips/training in EG	91-92	0	1	1	1	1	1	1	
field trips/training in EG	2001-02	1	1	1	0	1	0	0	0
7 Percentage of EG courses you teach									
5 year period	1987-1992			40	25	20	10	40	
5 year period	1997-2002	0	20	25	5	10	0	8	
Other courses you teach									
introductory geology	1987-1992			0	0	1	1	1	
introductory geology	1997-2002	2	1	0	1	1	1	1	
general geology	1987-1992			0	0.33	0	0	0	
general geology	1997-2002	1	1	1	0	0	0	0	1
mineralogy	1987-1992			1	0.67	0	0	1	
mineralogy	1997-2002	1	1	1	0	0	0	0	0

	petrology	1987-1992		0	2	2	0	1	
	petrology	1997-2002	2	1	2	2	0	1	0
	field geology	1987-1992		1	2	0	0	1	
	field geology	1997-2002	0	1	1	0	1	1	1
	environmental geology	1987-1992		0	0	0	0	1	
	environmental geology	1997-2002	0	0	0	1	1	0	1
	hydrogeology	1987-1992		0	0	1	0	0	
	hydrogeology	1997-2002	0	0	0	0	0	0	0
	stratigraphy	1987-1992		0	0	0	1	0	
	stratigraphy	1997-2002	0	0	0	0	1	0	1
	geomorph/surficial process	1987-1992		0	0	0	0	0	
	geomorph/surficial process	1997-2002	0	0	0	0	0	0	1
	other—structural geology	1987-1992		0	0	0	0	0	
	other—structural geology	1997-2002	0	0	0	0	0	0	0
	other—tectonics	1987-1992		0	0	0	0	0	
	other—tectonics	1997-2002	0	0	0	0	0	0	0
	other—geochemistry	1987-1992		1	0	0	0	0	
	other—geochemistry	1997-2002	0	1	0	0	0	0	0
8	Industry partnerships								
	no partnerships								1
	limited partnerships						1	1	
	active partnerships		1	1	1			1	
9	Research funding (non-univ)								
	% federal		0	0	75	33	0	50	90
	%state/other government		5	70	0	33	80	0	10
	%private industry		90	30	25	33	20	30	0
	%international agencies		5	0	0	0	0	20	0
	Total funds per year (US\$)								
	total research funds	1987-1992		20,000	80,000		15,000	80,000	
	total research funds	1997-2002	15,000	20,000	150,000		10,000	220,000	30,000
	number of grad students/year	1987-1992		7	3	8	5	3	
	number of grad students/year	1997-2002	0	6	3	10	2	1	2
10	MS–PhD hires (1992-2002)	n/a							
	Mining industry			10	10	2	0	0	0
	federal & state government			2	2	0	3	0	1
	academia			0	4	0	4	1	0
	environmental company			0	4	5	3	2	2
	petroleum company			0	3	0	1	0	0
	Returned to Univ. for a new degree			0	2	2	1	0	1
	IT-financial, other degrees			0	0	0	0	0	0
11	age								
	What is your age		38	49	46	49	55	52	50
	Expected retirement year		2033	2020	2026	2020	2013	2012	2017
	Replacement	yrs to retire	30	17	23	17	10	9	14
	a) would not								1
	b) almost certainly not						1	1	
	c) probably not		1	1		1			
	d) probably would				1				
	e) would								
12	faculty retired not replaced							no answer	
	How many								
	details		It's always been pretty much a 1-person operation here. It's not so much that econ geol has shrunk as much as everything else has grown.	now/1980 (* = change in field accounts for some or all of loss): Harvard: (0/2), Dartmouth: (0/2), UCLA: (0/2), Princeton: (0/1), Va. Tech (1*/3), UC-Riverside (0*/2), Colorado (0/1; Atkinson retire yet?), Michigan (1/3), Minnesota (0/1), Stanford (you can count better than I; demise of AES should	We no longer teach a separate econ geol course, but some material is included in petrology courses. I teach a general seminar in resource geol to grad students.	CSUs! I was hired as admin, not for econ geol, and teach very little. Our "program" is largely research w/limited teaching because we lack adequate course-work for students (the Re-Os program is not paid by the univ, and members do not teach regular courses). This should	Econ geol –1; petrol, high-T geochem –2		

				account for more than 1, I should think), Penn State (0*/3), N. Carolina (0*/1), U. Washington (0/1), W. Washington (0/1)			change markedly next year if we can fill our new endowed chair in econ geol.	
Res\$/student 1987-92			2,857	26,667		3,000	26,667	
Res\$/student 1997-02			3,333	50,000		5,000	220,000	15,000

2002 Survey by John Dilles of Economic Geologists in U.S. and Canadian Universities

			29	30	31	32	33	34	35
	University		Univ of the South	Univ of Rochester	Univ of Colorado	Univ of Missouri, Columbia	College of William and Mary	Univ of Nevada, Reno	Bowling Green State Univ., Ohio
	Country: U.S., 1; Canada, 2		1	1	1	1	1	1	1
1	Metals economic geology		1		4	1	1	1	1
	General economic geology		1		4		2	3	
	general geochemistry		1	1	3		4		
	stable isotope geochem		3		1	2		1	
	exploration geochemistry		1		2				
	analytical geochemistry		4		1	4	3		
	petrology		1		3				
	general petrology		1		1			3	3
	mineralogy		2		3	3			2
	volcanology		4	3	3				
	minerals economics		4		2				4
	geostatistics		4		1				
	other—structural geology								
	other—geochronology								
	other—stratigraphy								
	other—fluid inclusions				1				
	other??								
2	PhD year		1984	1973	1973	1982	1970	1991	1960
3	Industry years		7	0	15	0	0	10	6
4	Year of faculty hire		1985	1980	1978	1983	1970	1997	1960
5	All Earth Science								
	UG majors 1981-82		0	50	100	50	10		100
	UG majors 1991-92		4	10	100	30	30		40
	UG majors 2001-02		7	10	50	25	30	60	31
	MS candidates 1981-82		0	5	100	30	na		40
	MS candidates 1991-92		0	2	75	23	na		25
	MS candidates 2001-02		0	1	30	20	na	25	23
	PhD candidates 1981-82		0	2	30	2	na		
	PhD candidates 1991-92		0	15	20	2	na		
	PhD candidates 2001-02		0	10	20	5	na	20	
	Economic Geology								
	MS candidates 1981-82		0	0	12	2			5.5
	MS candidates 1991-92		0	1	6	2			1.5
	MS candidates 2001-02		0	0	4	1		8	1
	PhD candidates 1981-82		0	0	3	0			
	PhD candidates 1991-92		0	0	5	0			
	PhD candidates 2001-02		0	0	4	1		6	
	Geoscience Faculty								
	Total 1981-82		3	8	30	15	5		10
	Total 1991-92		3	7	30	14	5		11
	Total 2001-02		3	7	27	13	6	14	12
	mineral resources 1981-82		1	1	1	1	0		1
	mineral resources 1991-92		2	1	1	1	0		1
	mineral resources 2001-02		2	0	1	1	1	2	0
6	Courses in econ geology								
	intro econ geol	81-82	0	1	1	1	1		1
	intro econ geol	91-92	1	1	1	1	1		1
	intro econ geol	2001-02	1	1	1	1	0	3	0
	advanced econ geol	81-82	0	1	2	0	0		1
	advanced econ geol	91-92	0	0	2	0	0		1
	advanced econ geol	2001-02	0	0	1	0	1	8	0
	field trips/training in EG	81-82	0	0	10	1	0		1
	field trips/training in EG	91-92	0	0	10	1	0		1
	field trips/training in EG	2001-02	0	0	3	1	0	2	0
7	Percentage of EG courses you teach								
	5 year period	1987-1992	33	20	90	33	75		50
	5 year period	1997-2002	33	15	30	16	33	70	0
	Other courses you teach								
	introductory geology	1987-1992	2	0	1	1	1		1
	introductory geology	1997-2002	2	0	1	1	2	0	0
	general geology	1987-1992	0	1	0	1	0		1
	general geology	1997-2002	0	1	0	1	0	1	1
	mineralogy	1987-1992	1	0	0	1	0		1
	mineralogy	1997-2002	1	0	0	1	0	1	0

	petrology	1987-1992	1	0	0	1	0		0
	petrology	1997-2002	1	0	0	0	0	0	0
	field geology	1987-1992	0	0	1	0	0		0
	field geology	1997-2002	0	0	1	0	0	1	0
	environmental geology	1987-1992	0	1	0	0	0		0
	environmental geology	1997-2002	0	2	0	0	0	0	0
	hydrogeology	1987-1992	0	0	0	0	0		0
	hydrogeology	1997-2002	0	0	0	0	0	0	0
	stratigraphy	1987-1992	0	0	0	0	0		0
	stratigraphy	1997-2002	0	0	0	0	0	0	0
	geomorph/surficial process	1987-1992	0	0	0	0	0		0
	geomorph/surficial process	1997-2002	0	0	0	0	0	0	0
	other—structural geology	1987-1992	0	0	0	0	0		0
	other—structural geology	1997-2002	0	0	0	0	0	0	0
	other—tectonics	1987-1992	0	0	0	0	0		0
	other—tectonics	1997-2002	0	0	0	0	0	0	0
	other—geochemistry	1987-1992	0	0	0	0	0		0
	other—geochemistry	1997-2002	0	0	0	0	0	0	0
8	Industry partnerships								
	no partnerships		1						
	limited partnerships			1	1	1	1		
	active partnerships						1	1	
9	Research funding (non-univ)								
	% federal		90	53	70	50	48	0	
	% state/other government		0	0	20	0	20	10	
	% private industry		10	47	10	50	30	90	
	% international agencies		0	0	0	0	2	0	
	Total funds per year (US\$)								
	total research funds	1987-1992	0	50,000	44,000	50,000	100,000		1,000
	total research funds	1997-2002	0	100,000	60,000	50,000	0	140,000	4
	no. of grad students/yr	1987-1992	0	2	12	2	3		n.a.
	no. of grad students/yr	1997-2002	0	1	12	2	0	2	n.a.
10	MS-PhD hires (1992-2002)	n/a					(5 yrs)		
	Mining industry		0	3	0	n.a.	2	0	
	federal & state government		1	6	2	n.a.	0	0	
	academia		2	2	0	n.a.	0	0	
	environmental company		1	1	1	n.a.	2	80	
	petroleum company		0	1	1	n.a.	0	0	
	Returned to Univ. for a new degree		0	1	1	n.a.	0	20	
	IT-financial, other degrees		0	0	0	n.a.	0	0	
11	Age								
	What is your age?	no answer	60	67	45	59	49	69	
	Expected retirement year		2007	2004	2017	2009	2020		
	Replacement	yrs to retire	4	1	14	6	17		
	a) would not				1	1		1	
	b) almost certainly not		1						
	c) probably not				1				
	d) probably would							1	
	e) would								
12	Faculty retired not replaced (how many)	no answer	no answer	no answer	no answer	no answer			
	Details			At Colo. State Univ., Tommy Thompson's program disappeared when he retired, In 2002, Univ rec'd donation for 2 endowed chairs, one spec. geophysics and one econ geol! Chair Judy Hannah is econ geologist & Holly Stein has her Re/Os dating lab there, so the program is suddenly revived & vigorous!	I left UNC-Chapel Hill in 1997 to assume my present admin. post. For that reason, my answers will skew things slightly as I was hired as an admin who then happened to become the first econ geol in small undergrad dept.	Colorado State shrank, Univ. of Michigan	Bowling Green replaced me w/a petrologist and added surficial geol., environ geol. & geol educationist		
	Res\$/student 1987-92		25,000	3,667	25,000	33,333			
	Res\$/student 1997-02		100,000	5,000	25,000	70,000			

2002 Survey by John Dilles of Economic Geologists in U.S. and Canadian Universities

		36 University	37 Indiana University	38 Colorado State University	39 California State University, Long Beach	40 U Quebec a	41 University of Minnesota- Duluth	42 Montana Tech of U of Montana
	University							
1	Country (U.S.,1; Canada, 2)		1	1	1	1	1	1
	metals economic Geology		1	2	2	3	1	1
	general economic geology			2		3	1	2
	general geochemistry		1	1		2	4	
	stable isotope geochemistry		1	1	4	1	3	
	exploration geochemistry			3	3	1	3	
	analytical geochemistry		2	2		2	3	
	petrology		2	2		1	2	3
	general petrology			3		2	4	
	mineralogy			4		3	3	4
	volcanology			4		3	3	
	minerals economics			4		4	3	
	geostatistics			4		4	3	
	other—structural geology						1	
	other—geochronology				1			
	other—stratigraphy							
	other—fluid inclusions							
	other??							
2	PhD year		1976	1998	1985	1997	1984	1982
3	Industry years		1	0	5	0	5	2
4	Year of faculty hire		1976	1998		2000	1987	1986
5	All Earth Science							
	UG majors 1981-82		100	65		50		150
	UG majors 1991-92		50	55		15	35	20
	UG majors 2001-02		60	60		15	30	45
	MS candidates 1981-82		45	40		20		12
	MS candidates 1991-92		35	30		5	10	12
	MS candidates 2001-02		35	35		7	30	10
	PhD candidates 1981-82		15	35		0		0
	PhD candidates 1991-92		20	25		0	2	0
	PhD candidates 2001-02		20	35		0	3	6
	Economic Geology							
	MS candidates 1981-82		3	5		0		2
	MS candidates 1991-92		2	2		0	5	4
	MS candidates 2001-02		2	1		1	5	3
	PhD candidates 1981-82		3	6				0
	PhD candidates 1991-92		3	3		0	2	0
	PhD candidates 2001-02		3	3		0	2	2
	Geoscience Faculty							
	Total 1981-82		30	2		12		7
	Total 1991-92		22	2		10	20	8
	Total 2001-02		23	3		10	25	11
	Mineral Resources 1981-82		3	1		1		1
	Mineral Resources 1991-92		2	1		0	2	1.5
	Mineral Resources 2001-02		2	1		1	3	1.75
6	Courses in Econ Geology							
	intro econ geol	81-82	1	2		1		1
	intro econ geol	91-92	1	2		1	2	2
	intro econ geol	2001-02	1	2		1	2	1
	advanced econ. geology	81-82	4	1		0		2
	advanced econ. geology	91-92	3	0		0	2	3
	advanced econ. geology	2001-02	3	0		1	4	1
	field trips/training in EG	81-82	1	1	?			0
	field trips/training in EG	91-92	1	1	?		1	0
	field trips/training in EG	2001-02	1	1		1	3	0
7	Percentage of EG courses you teach							
	5 year period	1987-1992	50	n/a		n/a	50	25
	5 year period	1997-2002	33	n/a		5	50	30
	Other courses you teach							
	Introductory geology	1987-1992	1				3	0
	Introductory geology	1997-2002	1	1		1	0	0
	general geology	1987-1992	0				0	1
	general geology	1997-2002	0	0		1	0	1
	mineralogy	1987-1992	1				0	1

	mineralogy	1997-2002	0	0	0	0	1	1
	petrology	1987-1992	1			0	1	
	petrology	1997-2002	0	0	0	0	1	1
	field geology	1987-1992	1			5	1	
	field geology	1997-2002	0	0	1	3	1	1
	environmental geology	1987-1992	0			0	0	
	environmental geology	1997-2002	0	0	0	0	0	0
	hydrogeology	1987-1992	0			0	0	
	hydrogeology	1997-2002	0	0	0	0	0	0
	stratigraphy	1987-1992	0			0	0	
	stratigraphy	1997-2002	0	0	0	0	0	0
	geomorph/surficial processes	1987-1992	0			0	0	
	geomorph/surficial processes	1997-2002	0	0	0	0	0	0
	other—structural geology	1987-1992	0			1	0	
	other—structural geology	1997-2002	0	0	0	1	0	0
	other—tectonics	1987-1992	0			1	0	
	other—tectonics	1997-2002	0	0	0	1	0	0
	other—geochemistry	1987-1992	0			0	0	
	other—geochemistry	1997-2002	0	0	0	0	0	0
8	Industry partnerships							
	no partnerships				1		1	
	limited partnerships		1					1
	active partnerships			1	1		1	
9	Research funding (non-univ)							
	% federal		80	20	40	85	30	0
	%state/other government		10	50	20	15	40	80
	%private industry		10	20	30	0	30	20
	%international agencies		0	10	10	0	0	0
	Total funds per year (US\$)							
	total research funds	1987-1992	70,000			30,000	10,000	
	total research funds	1997-2002	80,000	10,000	1,400,000	120,000	80,000	2,000
	no. of grad students/yr	1987-1992	4				3	1
	no. of grad students/yr	1997-2002	4	1	1	2	4	1
10	MS–PhD hires (1992-2002)				+2PD, 2UG			
	mining industry		2	0	0	0	40	2
	federal & state government		4	0	0	0	20	6
	academia		8	0	0	0	20	2
	environmental company		2	0	0	10	20	12
	petroleum company		1	0	0	10	0	2
	Returned to Univ. for a new degree		1	0	0	5	20	8
	IT-financial, other degrees		0	0	0	0	0	5
11	Age							
	What is your age		53	40	48	42	49	52
	expected retirement year		2020	2028		2030	2019	2016
	replacement yrs to retire		17	25		27	16	13
	a) would not							
	b) almost certainly not		1					
	c) probably not			1		1		
	d) probably would						1	1
	e) would						1	
12	faculty retired not replaced			no answer		no answer		
	How many							
	Details					We didn't shrink but expand, opening a new M.Sc. program in mineral explor. 2 yrs ago. No faculty in econ. geology retired because the 2-3 profs in econ geol are 50.		
	Res\$/student 1987-92		17,500			10,000	10,000	
	Res\$/student 1997-02		20,000	10,000	1,400,000	60,000	20,000	2,000

	University		43 Washington State University	44 Adams State College	45 Virginia Tech	46 University of Utah	47 Oregon State University
	Country (U.S., 1; Canada, 2)		1	1	1	1	1
1	metals economic Geology		1	1	3	4	1
	general economic geology		2	2		1	
	general geochemistry		3	2	1	3	4
	stable isotope geochemistry			3			3
	exploration geochemistry			2			
	analytical geochemistry			3			
	petrology			2	2		2
	general petrology			3			
	mineralogy			2		2	
	volcanology			2	4		
	minerals economics			3			
	geostatistics			2			
	other—structural geology						4
	other—geochronology						4
	other—stratigraphy						
	other—fluid inclusions						
	other??			1			
2	PhD year		1980	1997	1985	1983	1984
3	Industry years		5	12	1.5	3	3.5
4	Year of faculty hire		1981	1997	1985	1983	1986
5	All Earth Science						
	UG majors 1981-82		25	10	150		150
	UG majors 1991-92		18	9	59		45
	UG majors 2001-02		10	30	130		60
	MS candidates 1981-82		30				30
	MS candidates 1991-92		20		30		25
	MS candidates 2001-02		20		25		20
	PhD candidates 1981-82		10				12
	PhD candidates 1991-92		20		20		10
	PhD candidates 2001-02		15		29		10
	Economic Geology						
	MS candidates 1981-82		8		2.5		10
	MS candidates 1991-92		5		2.5		6
	MS candidates 2001-02		4		0		1
	PhD candidates 1981-82		0		1.5		4
	PhD candidates 1991-92		2		4		2
	PhD candidates 2001-02		2		0		1
	Geoscience Faculty						
	Total 1981-82		10	2	22		10
	Total 1991-92		10	2	22		10.5
	Total 2001-02		11	2.5	24		8
	Mineral Resources 1981-82		1	0	1		1
	Mineral Resources 1991-92		2	0	3		2
	Mineral Resources 2001-02		2	1	0	1	1
6	Courses in Econ Geology						
	intro econ geol	81-82	1	0	1	1	1
	intro econ geol	91-92	1	0	1	1	1
	intro econ geol	2001-02	1	0	0	1	1
	advanced econ. geology	81-82	3	0	2	2	2
	advanced econ. geology	91-92	3	0	2	2	2
	advanced econ. geology	2001-02	3	0	0	1	0.5
	field trips/training in EG	81-82	3	0		1	0.5
	field trips/training in EG	91-92	3	0	2	1	1
	field trips/training in EG	2001-02	3	0	0	1	1
7	Percentage of EG courses you teach						
	5 year period	1987-1992	50	0	65	50	33
	5 year period	1997-2002	50	0	25	50	25
	Other courses you teach				(0=today)		
	Introductory geology	1987-1992	1		5	0	0
	Introductory geology	1997-2002	1	5	5	0	0
	general geology	1987-1992	1		0	0	0
	general geology	1997-2002	1	5	0	0	0
	mineralogy	1987-1992	0		0	1	0

mineralogy	1997-2002	0	2	0	1	0
petrology	1987-1992	0		0	0	0
petrology	1997-2002	0	2	2	0	0.5
field geology	1987-1992	0		2	1	2
field geology	1997-2002	0	2	0	0	1
environmental geology	1987-1992	0		0	0	0
environmental geology	1997-2002	0	1	0	0	0.5
hydrogeology	1987-1992	0		0	0	0
hydrogeology	1997-2002	0	0	0	0	0
stratigraphy	1987-1992	0		0	0	0
stratigraphy	1997-2002	0	3	0	0	0
geomorph/surficial process	1987-1992	0		0	0	0
geomorph/surficial process	1997-2002	0	0	0	0	0
other—structural geology	1987-1992	0		0	0	0
other—structural geology	1997-2002	0	0	0	0	0
other—tectonics	1987-1992	0		0	0	0
other—tectonics	1997-2002	0	0	0	0	0
other—geochemistry	1987-1992	0		0	0	0
other—geochemistry	1997-2002	0	0	0	0	0
8 Industry partnerships						
no partnerships			1			
limited partnerships				1		1
active partnerships		1			1	
9 Research funding (non-univ)						
% federal		50	0	80	0	80
% state/other government		0	0	0	10	0
% private industry		50	0	20	80	20
% international agencies		0	0	0	10	0
Total funds per year (US\$)						
total research funds	1987-1992	100,000	0	316,000	10,000	15,000
total research funds	1997-2002	100,000	0	381,000	10,000	45,000
no. of grad students/yr	1987-1992	4	0	5	2	3
no. of grad students/yr	1997-2002	4	0	6	2	2
10 MS–PhD hires (1992-2002)						
mining industry		10	0	0	4	5
federal & state government		0	0	0	1	3
academia		2	0	1	0	1
environmental company		0	0	0	2	3
petroleum company		0	0	0	0	1
Returned to Univ. for a new degree		5	0	0	2	3
IT-financial, other degrees		0	0	0	0	0
11 Age						
What is your age		49	44	52	49	48
expected retirement year		2003	2025	2015	2017	2020
replacement	yrs to retire	0	22	12	14	17
a) would not		1		1		
b) almost certainly not						1
c) probably not			1			
d) probably would						
e) would						
12 faculty retired not replaced						
How many						
Details		Univ of Idaho	We're growing, as a general program & we are going to emphasize GIS	Econ geol of metal deposits program has disappeared. I've moved mostly to high-T experimental petrology & geochem; Jim Craig has retired & Don Rimstidt moved to low-T environ geochem. The hard rock petrology program has also shrunk, while low-T geochemistry & hydrology have grown.		Since 1990, igneous petrol, econ geol (-1) & geochem. have shrunk in our program from ~3.5 faculty to 2.5. Struct. geol shrank from 2 to <1; sed. geol shrank from 2 to 0; we added geomorph. (2) & hydrogeol. (1) positions. Due to geol-oceanog. hiring, we maintain a large hard rock prog. of ~7 faculty in igneous process. Grad econ geol. enrollment has dropped steadily for last 10 yrs; we

						have only 1 enrolled.
Res\$/student 1987-92		25,000		63,200	5,000	5,000
Res\$/student 1997-02		25,000		63,500	5,000	22,500

	Summary	All Respondents				Canadian Universities (n=8)			
		Avg Num	Number of responses	%ranked responses	Numeric, top to bottom	Avg Num	Number of ranked responses	%ranked responses	Numeric, top to bottom
1	metals economic geology	1.5	41.0	87.2%	3.0	1.0	6.0	75.0%	3.0
	general economic geology	2.0	34.0	72.3%	2.2	1.9	7.0	87.5%	2.8
	general geochemistry	2.2	34.0	72.3%	2.0	2.0	6.0	75.0%	2.3
	stable isotope geochemistry	2.2	25.0	53.2%	1.5	2.3	3.0	37.5%	1.0
	exploration geochemistry	2.4	19.0	40.4%	1.0	2.7	3.0	37.5%	0.9
	analytical geochemistry	2.7	21.0	44.7%	1.0	2.8	4.0	50.0%	1.1
	petrology	2.6	25.0	53.2%	1.3	2.3	3.0	37.5%	1.0
	general petrology	2.8	20.0	42.6%	1.0	2.8	4.0	50.0%	1.1
	mineralogy	2.9	22.0	46.8%	1.0	2.7	3.0	37.5%	0.9
	volcanology	3.1	20.0	42.6%	0.8	2.3	3.0	37.5%	1.0
	minerals economics	3.4	18.0	38.3%	0.6	3.7	3.0	37.5%	0.5
	geostatistics	3.4	15.0	31.9%	0.5	3.7	3.0	37.5%	0.5
	other-structural geology	2.6	5.0	10.6%	0.3	3.0	1.0	12.5%	0.3
	other-geochronology	2.7	6.0	12.8%	0.3	2.0	2.0	25.0%	0.8
	other-stratigraphy	3.0	3.0	6.4%	0.1		0.0	0.0%	
	other--fluid inclusions	2.3	3.0	6.4%	0.2	2.0	1.0	12.5%	0.4
	other???	1.0	1.0	2.1%	0.1		0.0	0.0%	
2	Ph.D. Year	1981.9	47.0		8.4	1984.4	8.0		
3	Industry years	4.5	47.0		5.2	5.9	8.0		
4	Year of faculty hire	1984.8	46.0		10.1	1988.3	8.0		
5	All Earth Science								
	UG majors 1981-82	106.9	31.0	66.0%	70.5	170.0	2.0	25.0%	42.5
	UG majors 1991-92	51.3	35.0	74.5%	38.2	86.7	3.0	37.5%	32.5
	UG majors 2001-02	52.3	40.0	85.1%	44.5	55.2	6.0	75.0%	41.4
	MS candidates 1981-82	35.2	28.0	59.6%	21.0	13.0	2.0	25.0%	3.3
	MS candidates 1991-92	27.5	35.0	74.5%	20.4	27.8	4.0	50.0%	13.9
	MS candidates 2001-02	23.5	39.0	83.0%	19.5	20.3	6.0	75.0%	15.3
	PhD candidates 1981-82	15.7	27.0	57.4%	9.0	7.5	2.0	25.0%	1.9
	PhD candidates 1991-92	15.3	33.0	70.2%	10.8	13.3	4.0	50.0%	6.6
	PhD candidates 2001-02	15.4	38.0	80.9%	12.4	10.4	7.0	87.5%	9.1
	Economic Geology								
	MS candidates 1981-82	5.8	30.0	63.8%	3.7	1.5	2.0	25.0%	0.4
	MS candidates 1991-92	4.2	36.0	76.6%	3.2	5.5	4.0	50.0%	2.8
	MS candidates 2001-02	3.3	39.0	83.0%	2.7	3.3	6.0	75.0%	2.5
	PhD candidates 1981-82	1.9	27.0	57.4%	1.1	1.0	2.0	25.0%	0.3
	PhD candidates 1991-92	2.0	34.0	72.3%	1.5	2.5	4.0	50.0%	1.3
	PhD candidates 2001-02	2.0	37.0	78.7%	1.6	3.2	6.0	75.0%	2.4
	Geoscience Faculty								
	Total 1981-82	13.6	28.0	59.6%	8.1	13.7	3.0	37.5%	5.1
	Total 1991-92	13.3	29.0	61.7%	8.2	12.7	3.0	37.5%	4.8
	Total 2001-02	13.7	33.0	70.2%	9.6	12.0	5.0	62.5%	7.5
	Mineral Resources 1981-82	1.4	28.0	59.6%	0.8	1.7	3.0	37.5%	0.6
	Mineral Resources 1991-92	1.4	29.0	61.7%	0.9	56.75	1.7	3.0	37.5%
	Mineral Resources 2001-02	1.4	41.0	87.2%	1.2	55.75	2.0	6.0	75.0%
	Courses in Econ Geology				47.29				
	intro econ geol	1.2	39.0	83.0%	1.0	1.7	6.0	75.0%	1.3
	intro econ geol	1.4	40.0	85.1%	1.1	1.8	6.0	75.0%	1.4
	intro econ geol	1.1	44.0	93.6%	1.0	1.4	8.0	100.0%	1.4
	advanced econ geol	1.4	39.0	83.0%	1.2	0.8	6.0	75.0%	0.6
	advanced econ geol	1.4	40.0	85.1%	1.2	1.0	6.0	75.0%	0.8
	advanced econ geol	1.3	44.0	93.6%	1.2	1.4	8.0	100.0%	1.4
	field trips/training in EG	1.2	37.0	78.7%	0.9	1.0	6.0	75.0%	0.8
	field trips/training in EG	1.3	39.0	83.0%	1.1	1.0	6.0	75.0%	0.8
	field trips/training in EG	1.0	44.0	93.6%	1.0	1.0	8.0	100.0%	1.0
7	Percentage of EG courses you teach								
	5-year period	44.4	33.0	70.2%	31.1	45.8	4.0	50.0%	22.9
	5-year period	29.9	43.0	91.5%	27.3	41.6	8.0	100.0%	41.6
	Other courses you teach								
	introductory geology	0.9	26.0	55.3%	0.5	0.3	3.0	37.5%	0.1
	Introductory geology	0.9	37.0	78.7%	0.7	0.4	7.0	87.5%	0.4

	general geology	0.3	25.0	53.2%	0.2		0.3	3.0	37.5%	0.1
	general geology	0.7	36.0	76.6%	0.5		0.2	6.0	75.0%	0.1
	mineralogy	0.4	25.0	53.2%	0.2		0.0	2.0	25.0%	0.0
	mineralogy	0.4	36.0	76.6%	0.3		0.0	6.0	75.0%	0.0
	petrology	0.4	26.0	55.3%	0.2		0.0	2.0	25.0%	0.0
	petrology	0.5	36.0	76.6%	0.4		0.2	6.0	75.0%	0.1
	field geology	0.8	27.0	57.4%	0.5		0.5	2.0	25.0%	0.1
	field geology	0.7	37.0	78.7%	0.6		0.7	6.0	75.0%	0.5
	environmental geology	0.2	26.0	55.3%	0.1		0.3	3.0	37.5%	0.1
	environmental geology	0.3	37.0	78.7%	0.2		0.1	7.0	87.5%	0.1
	hydrogeology	0.1	25.0	53.2%	0.1		0.3	3.0	37.5%	0.1
	hydrogeology	0.1	35.0	74.5%	0.0		0.2	6.0	75.0%	0.1
	stratigraphy	0.0	23.0	48.9%	0.0		0.0	2.0	25.0%	0.0
	stratigraphy	0.2	35.0	74.5%	0.1		0.0	6.0	75.0%	0.0
	geomorph/surficial processes	0.0	23.0	48.9%	0.0		0.0	2.0	25.0%	0.0
	geomorph/surficial processes	0.0	34.0	72.3%	0.0		0.0	6.0	75.0%	0.0
	other—structural geology	0.1	24.0	51.1%	0.0		0.0	2.0	25.0%	0.0
	other—structural geology	0.1	35.0	74.5%	0.0		0.0	6.0	75.0%	0.0
	other—tectonics	0.1	24.0	51.1%	0.0		0.0	2.0	25.0%	0.0
	other—tectonics	0.1	34.0	72.3%	0.0		0.0	6.0	75.0%	0.0
	other—geochemistry	0.1	24.0	51.1%	0.0		0.0	2.0	25.0%	0.0
	other—geochemistry	0.1	34.0	72.3%	0.1		0.0	6.0	75.0%	0.0
8	Industry partnerships									
	no partnerships	1.0	6.0	12.8%	0.1		0.0	0.0	0.0%	
	limited partnerships	0.9	19.0	40.4%	0.4		1.0	3.0	37.5%	0.4
	active partnerships	1.0	23.0	48.9%	0.5		1.0	5.0	62.5%	0.6
9	Research funding (non-univ)									
	% federal	47.7	44.0	93.6%	44.6		48.5	8.0	100.0%	48.5
	% state/other government	20.8	43.0	91.5%	19.0		29.1	8.0	100.0%	29.1
	% private industry	27.2	45.0	95.7%	26.0		21.0	8.0	100.0%	21.0
	% international agencies	2.2	40.0	85.1%	1.9		1.9	7.0	87.5%	1.6
	Total funds per year (US\$)									
	total research funds	58,516	31.0	66.0%	38,596		105,000	3.0	37.5%	39,375
	total research funds	111,768	43.0	91.5%	102,255		67,429	7.0	87.5%	59,000
	no. of grad students/yr	3.5	32.0	68.1%	2.4		3.5	4.0	50.0%	1.8
	no. of grad students/yr	3.0	44.0	93.6%	2.8		2.7	8.0	100.0%	2.7
10	MS-PhD hires (1992-2002)									
	mining industry	3.8	41.0	87.2%	3.3	24%	4.9	7.0	87.5%	4.3
	federal & state government	1.8	41.0	87.2%	1.6	11%	1.0	7.0	87.5%	0.9
	academia	1.5	41.0	87.2%	1.3	10%	1.0	7.0	87.5%	0.9
	environmental company	4.9	41.0	87.2%	4.2	31%	0.9	7.0	87.5%	0.8
	petroleum company	1.1	41.0	87.2%	1.0	7%	0.0	7.0	87.5%	0.0
	Returned to Univ. for a new degree	2.5	41.0	87.2%	2.2	16%	1.1	7.0	87.5%	1.0
	IT-financial, other degrees	0.2	40.0	85.1%	0.2	1%	0.0	7.0	87.5%	0.0
11	Age	15.8	743.1	15.8	249.9	100%				
	What is your age	50.6	42.0	89.4%			48.0	7.0	87.5%	
	Expected retirement year	2016.9	39.0	83.0%	7.523	2016.5	8.0	100.0%		
	Replacement	13.9	39.0	83.0%			13.5	8.0	100.0%	
	a) would not	1.0	9.0	19.1%	0.2		1.0	1.0	12.5%	0.1
	b) almost certainly not	1.0	8.0	17.0%	0.2		0.0	0.0	0.0%	
	c) probably not	1.0	11.0	23.4%	0.2		1.0	1.0	12.5%	0.1
	d) probably would	1.0	12.0	25.5%	0.2		1.0	5.0	62.5%	0.6
	e) would									
12	Faculty retired not replaced	1.0	2.0	4.3%	0.0		1.0	1.0	12.5%	0.1
	How many details									
	Res\$/student 1987-92	17,818	29.0	61.7%	10,994		18,375	4.0	50.0%	9,188
	Res\$/student 1997-02	73,138	37.0	78.7%	57,577		33,198	8.0	100.0%	33,198

2002 Survey by John Dilles of Economic Geologists in U.S. and Canadian Universities

	Summary	Ave Num	Number of ranked responses	%ranked responses	Total Numeric, top to bottom
1	metals economic geology	1.6	35.0	89.7%	3.0
	general economic geology	2.0	27.0	69.2%	2.1
	general geochemistry	2.3	28.0	71.8%	1.9
	stable isotope geochemistry	2.2	22.0	56.4%	1.6
	exploration geochemistry	2.4	16.0	41.0%	1.1
	analytical geochemistry	2.7	17.0	43.6%	1.0
	petrology	2.7	22.0	56.4%	1.3
	general petrology	2.8	16.0	41.0%	0.9
	mineralogy	2.9	19.0	48.7%	1.0
	volcanology	3.2	17.0	43.6%	0.8
	minerals economics	3.3	15.0	38.5%	0.6
	geostatistics	3.3	12.0	30.8%	0.5
	other-structural geology	2.5	4.0	10.3%	0.3
	other-geochronology	3.0	4.0	10.3%	0.2
	other-stratigraphy	3.0	3.0	7.7%	0.2
	other--fluid inclusions	2.5	2.0	5.1%	0.1
	other??	1.0	1.0	2.6%	0.1
2	Ph.D. Year	1981.4	39.0		
3	Industry years	4.3	39.0		
4	Year of faculty hire	1984.1	38.0		
5	All Earth Science				
	UG majors 1981-82	102.6	29.0	74.4%	76.3
	UG majors 1991-92	48.0	32.0	82.1%	39.4
	UG majors 2001-02	51.8	34.0	87.2%	45.2
	MS candidates 1981-82	36.9	26.0	66.7%	24.6
	MS candidates 1991-92	27.4	31.0	79.5%	21.8
	MS candidates 2001-02	24.0	33.0	84.6%	20.3
	PhD candidates 1981-82	16.3	25.0	64.1%	10.5
	PhD candidates 1991-92	15.6	29.0	74.4%	11.6
	PhD candidates 2001-02	16.5	31.0	79.5%	13.1
	Economic Geology				
	MS candidates 1981-82	6.1	28.0	71.8%	4.4
	MS candidates 1991-92	4.0	32.0	82.1%	3.3
	MS candidates 2001-02	3.2	33.0	84.6%	2.7
	PhD candidates 1981-82	2.0	25.0	64.1%	1.3
	PhD candidates 1991-92	2.0	30.0	76.9%	1.5
	PhD candidates 2001-02	1.8	31.0	79.5%	1.4
	Geoscience Faculty				
	Total 1981-82	13.6	25.0	64.1%	8.7
	Total 1991-92	13.4	26.0	66.7%	8.9
	Total 2001-02	14.0	28.0	71.8%	10.1
	Mineral Resources 1981-82	1.4	25.0	64.1%	0.9
	Mineral Resources 1991-92	1.4	26.0	66.7%	0.9
	Mineral Resources 2001-02	1.3	35.0	89.7%	1.1
	Courses in Econ Geology				
	intro econ geol	1.1	33.0	84.6%	0.9
	intro econ geol	1.3	34.0	87.2%	1.1
	intro econ geol	1.0	36.0	92.3%	0.9
	advanced econ geol	1.5	33.0	84.6%	1.3
	advanced econ geol	1.5	34.0	87.2%	1.3
	advanced econ geol	1.3	36.0	92.3%	1.2
	field trips/training in EG	1.2	31.0	79.5%	1.0
	field trips/training in EG	1.3	33.0	84.6%	1.1
	field trips/training in EG	1.1	36.0	92.3%	1.0
7	Percentage of EG courses you teach				
	5-year period	44.2	29.0	74.4%	32.8
	5-year period	27.2	35.0	89.7%	24.4
	Other courses you teach				
	introductory geology	1.0	23.0	59.0%	0.6

	Introductory geology	1.0	30.0	76.9%	0.8
	general geology	0.3	22.0	56.4%	0.2
	general geology	0.8	30.0	76.9%	0.6
	mineralogy	0.5	23.0	59.0%	0.3
	mineralogy	0.4	30.0	76.9%	0.3
	petrology	0.5	24.0	61.5%	0.3
	petrology	0.6	30.0	76.9%	0.4
	field geology	0.9	25.0	64.1%	0.5
	field geology	0.7	31.0	79.5%	0.6
	environmental geology	0.2	23.0	59.0%	0.1
	environmental geology	0.3	30.0	76.9%	0.2
	hydrogeology	0.1	22.0	56.4%	0.1
	hydrogeology	0.0	29.0	74.4%	0.0
	stratigraphy	0.0	21.0	53.8%	0.0
	stratigraphy	0.2	29.0	74.4%	0.2
	geomorph/surficial processes	0.0	21.0	53.8%	0.0
	geomorph/surficial processes	0.0	28.0	71.8%	0.0
	other—structural geology	0.1	22.0	56.4%	0.1
	other—structural geology	0.1	29.0	74.4%	0.1
	other—tectonics	0.1	22.0	56.4%	0.1
	other—tectonics	0.1	28.0	71.8%	0.1
	other—geochemistry	0.1	22.0	56.4%	0.1
	other—geochemistry	0.1	28.0	71.8%	0.1
8	Industry partnerships				
	no partnerships	1.0	6.0	15.4%	0.2
	limited partnerships	0.9	16.0	41.0%	0.4
	active partnerships	0.9	18.0	46.2%	0.4
9	Research funding (non-univ)				
	% federal	47.5	36.0	92.3%	43.8
	%state/other government	18.9	35.0	89.7%	16.9
	%private industry	28.5	37.0	94.9%	27.1
	%international agencies	2.3	33.0	84.6%	1.9
	Total funds per year (US\$)				
	total research funds	53,535.7	28.0	71.8%	38,435.9
	total research funds	120,389.0	36.0	92.3%	111,128.3
	no. of grad students/yr	3.5	28.0	71.8%	2.5
	no. of grad students/yr	3.1	36.0	92.3%	2.8
10	MS–PhD hires (1992-2002)				
	mining industry	3.6	34.0	87.2%	3.1
	federal & state government	1.9	34.0	87.2%	1.7
	academia	1.6	34.0	87.2%	1.4
	environmental company	5.7	34.0	87.2%	4.9
	petroleum company	1.4	34.0	87.2%	1.2
	Returned to Univ. for a new degree	2.8	34.0	87.2%	2.5
	IT-financial, other degrees	0.2	33.0	84.6%	0.2
11	Age				
	What is your age	51.1	35.0	89.7%	
	Expected retirement year	2017.0	31.0	79.5%	
	Replacement	14.0	31.0	79.5%	
	a) would not	1.0	8.0	20.5%	0.2
	b) almost certainly not	1.0	8.0	20.5%	0.2
	c) probably not	1.0	10.0	25.6%	0.2
	d) probably would	0.9	7.0	17.9%	0.2
	e) would	1.0	1.0	2.6%	0.0
12	Faculty retired not replaced				
	How many				
	details				
	Res\$/student 1987-92	17,729	25.0	64.1%	11,365
	Res\$/student 1997-02	84,156	29.0	74.4%	62,578