

Table 1 - Impact of Higher Education Policies on University/4-yr College Enrollment Rates

Time Period :	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	1973-1999				1973-1980			1981-1990	1991-1999
<b>A: CANADA</b>									
Dependent Variable:	Provincial Log Enrollment Rates								
Log College Age	-1.037	-0.929	-0.743	-0.767	-0.909	-0.783	-0.843	-1.034	-0.255
Population	(0.105)	(0.090)	(0.064)	(0.070)	(0.070)	(0.066)	(0.077)	(0.110)	(0.104)
Log Average		-0.148		-0.087	-0.141	-0.067	-0.336	-0.057	0.043
Provincial Tuition		(0.029)		(0.019)	(0.018)	(0.034)	(0.051)	(0.029)	(0.047)
Log Provincial Funding per College-Age Person			0.334	0.293	0.253	0.205	0.292	0.132	0.199
			(0.039)	(0.035)	(0.028)	(0.034)	(0.054)	(0.059)	(0.056)
R-squared	0.96	0.97	0.97	0.98	0.99	0.99	0.99	0.98	0.98
No. Observations	270	270	270	270	270	270	80	100	90
<b>B: UNITED STATES</b>									
Dependent Variable:	State 4-yr Public Log Enrollment Rates								
Log College Age	-0.522	-0.541	-0.488	-0.517	-0.525	-0.526	-0.672	-0.752	-0.65
Population	(0.037)	(0.031)	(0.038)	(0.034)	(0.035)	(0.036)	(0.096)	(0.067)	(0.052)
Log Average		-0.152		-0.134	-0.132	-0.132	0.063	-0.127	-0.076
Public Tuition		(0.018)		(0.019)	(0.020)	(0.022)	(0.037)	(0.023)	(0.021)
Log State Appropriation per College-Age Person			0.114	0.073	0.081	0.080	0.166	-0.004	0.137
			(0.022)	(0.022)	(0.024)	(0.024)	(0.029)	(0.032)	(0.021)
R-squared	0.95	0.95	0.95	0.95	0.96	0.96	0.98	0.98	0.99
No. Observations	1350	1350	1350	1350	1350	1350	400	500	450
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prov/State Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prov/State Trends	No	No	No	No	Yes	Yes	No	No	No
Prov/State Quadratic Trends	No	No	No	No	No	Yes	No	No	No

Note: Robust standard errors are in parentheses. Models are estimated by weighted least squares, where the weights are the provincial/state population estimates.

Table 2 - Impact of Institutional Outlays on Student Support and Federal Funding on University Enrollment Rates in Canada

	(1)	(2)	(3)	(4)	(5)	(6)
Time Period :	1973-1999		1973-1980	1981-1990	1991-1999	
Econometric Specification:	OLS	OLS	OLS	OLS	OLS	IV
<b>Dependent Variable:</b>	<b>Provincial Log Enrollment Rates</b>					
Log College Age	-0.706	-0.581	-0.746	-0.890	-0.268	-0.369
Population	(0.063)	(0.070)	(0.090)	(0.110)	(0.120)	(0.134)
Log Average	-0.094	-0.109	-0.316	-0.089	0.040	-0.108
Provincial Tuition	(0.018)	(0.017)	(0.055)	(0.027)	(0.056)	(0.078)
Log Provincial Funding	0.253	0.277	0.271	0.007	0.163	0.213
per College-Age Person	(0.041)	(0.039)	(0.053)	(0.032)	(0.070)	(0.062)
Log Direct Federal		0.089	0.044	0.053	-0.085	
per College-Age Person		(0.029)	(0.027)	(0.030)	(0.041)	
Log Institutional Outlays	0.039	0.022	0.045	0.067	-0.025	
on Student Support	(0.019)	(0.019)	(0.027)	(0.019)	(0.027)	
per College-Age Person						
R-squared	0.98	0.98	0.99	0.98	0.99	0.98
No. Observations	270	270	80	100	90	90
<b>First-Stage Estimates of the Instruments:</b>						
<b>Determinants of Log Average Tuition</b>						
Log Direct Federal						0.428
per College-Age Person						(0.140)
Log Institutional Outlays						0.166
on Student Support						(0.077)
per College-Age Person						
Overid Test (p-value)						0.941
Year Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Provincial Dummies	Yes	Yes	Yes	Yes	Yes	Yes

Note: Robust standard errors are in parentheses. Models are estimated by weighted least squares, where the weights are the provincial population estimates.

Table 3 - Simulated Impacts of Changes in Higher Education Policies on University Enrollment in Canada

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Canada		Quebec		Ontario		BC	
Academic Years Ending:	1990	1999	1990	1999	1990	1999	1990	1999
FTE University Enrollees (in 1000s)	635 (3.7)	674 (0.5)	165 (3.4)	168 (0.2)	252 (3.3)	262 (0.4)	49 (3.3)	62 (2.5)
College-Age Population (in 1000s)	2,928 (-1.4)	2,876 (-0.2)	708 (-2.4)	702 (-0.1)	1,122 (-0.4)	1,055 (-0.5)	326 (-1.1)	368 (1.2)
University Enrollment Rates	21.7 (6.0)	23.4 (0.7)	23.3 (7.7)	24 (0.2)	22.4 (3.9)	24.9 (1.0)	14.9 (4.9)	16.9 (1.2)
Average Provincial Tuition (in 1999 \$CAN)	1,600 (0.7)	3,100 (8.4)	600 (-4.0)	1,700 (16.5)	1,900 (2.7)	3,600 (8.1)	2,000 (6.7)	2,500 (2.3)
Provincial Funding per College-Age Person (in 1999 \$CAN)	2,592 (3.5)	2,719 (0.5)	3,108 (13.2)	2,834 (-0.8)	2,289 (2.0)	2,733 (1.7)	2,212 (3.4)	2,760 (2.2)
<b>Simulated Enrollments under Alternative Higher Education Policies</b>								
<b>Annual Average Real Change over the 1990s</b>								
A: Tuition Increase at 4%/yr		710		195		276		61
B Tuition Increase at 2%/yr		727		199		282		62
C: Provincial Funding Increase at 1%/yr		681		175		258		61
D: Provincial Funding Increase at 2%/yr		696		179		264		62
E: Tuition Increase at 2%/yr and Provincial Funding Increase at 2%/yr		751		209		283		62

Note: Average yearly growth rates over the previous ten years are shown in parentheses. The simulated enrollment uses elasticities of enrollment rates with respect to tuition of -0.14 and with respect to provincial funding of 0.25, as estimated in column (5) of table 1.