LEAVING UNIVERSITY WITHOUT GRADUATING

Evidence from Canada's Youth in Transition Survey

RDC Brown Bag Series
The University of Western Ontario

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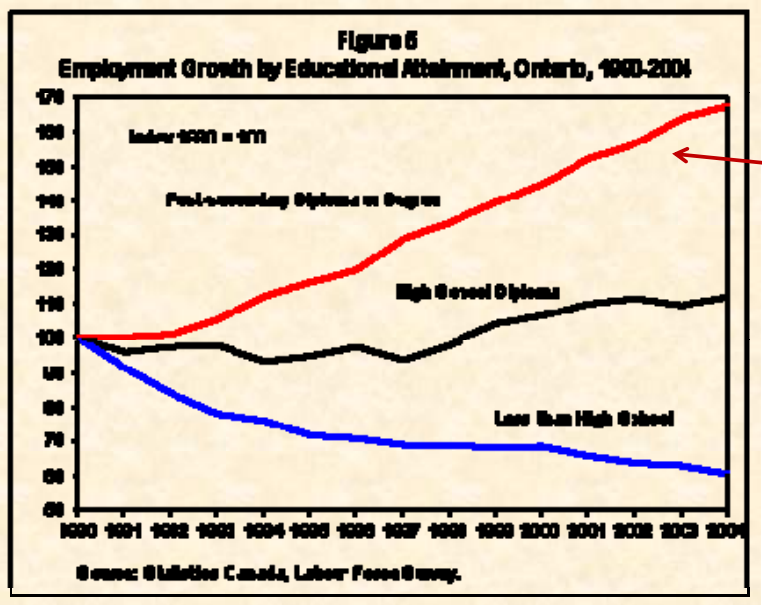
Outline

- Context
  - Knowledge economy
  - Revolution of expectations
  - Labour market outcomes
  - Persistent class inequalities
- Data & Methodology
  - YITS
- Analysis and Findings
- Other related research

Context: Knowledge Economy



- Increase in jobs requiring post-secondary credentials
- Pervasive public discourse: need for higher education
- Human capital central to education and labour market policies

Labour Market Outcomes
Unemployment

Western

Unemployment rates of population aged 15 and over, by level of education, Canada, 1990 to 2006

	All levels	Less than high school[1]	High school[2]	College or trade[3]	University[4]
			percentage		
1990	8.1	12.4	7.8	6.3	3.8
1991	10.3	15.4	10.2	8.2	4.9
1992	11.2	17.0	10.9	9.3	5.5
1993	11.4	17.0	11.6	9.6	5.8
1994	10.4	16.1	10.2	9.0	5.4
1995	9.5	15.1	9.6	7.9	5.0
1996	9.6	15.4	9.8	8.1	5.2
1997	9.1	15.7	9.2	7.4	4.8
1998	8.3	14.5	8.6	6.5	4.3
1999	7.6	13.5	7.8	5.9	4.2
2000	6.8	12.5	7.0	5.2	3.9
2001	7.2	13.1	7.2	5.8	4.6
2002	7.7	13.9	7.8	5.9	5.0
2003	7.6	13.8	7.8	5.8	5.4
2004	7.2	13.2	7.5	5.6	4.9
2005	6.8	12.6	7.1	5.3	4.6
2006	6.3	12.3	6.5	5.1	4.0

1. Includes no education or education below high school graduation.
2. Includes high school graduation or some postsecondary education (not completed).
3. Includes trade certificate or diploma from a vocational school or apprenticeship training; non-university certificate or diploma from a community college, CEGEP, school of nursing and similar programs at this level; university certificate below bachelor's level.
4. Includes bachelor's degree; university degree or certificate above bachelor's degree.

Notes: The data for 1995 to 1998 have been revised and are different from those previously published in 2005 PCEIP Report (Statistics Canada and Council of Ministers of Education, Canada. 2005. *Education indicators in Canada: Report of the Pan-Canadian Education Indicators Program*. Catalogue no. 81-582-XIE. Ottawa.).
The unemployment rate is based on a monthly average from January to December.

Source: Labour Force Survey, Statistics Canada.

Education = lower chances of un-employment

Over time: University graduates less dependent on boom-bust cycles

Labour Market Outcomes Income

Western

Canadian Population 15 years and over and average earnings by highest degree, certificate or diploma, 2001

Highest Level of Schooling	Less than high school	High School	Trades	College	Uni-versity
Average Earnings (Canadian Average: $32,183)	$21,713	$25,807	$33,868	$33,531	$48,183

Source: Statistics Canada, 2001 Census

Education increases income potential

Context: Educational Attainment

Western

Participation rate in education, by education level and age, Canada, 1995/1996 and 2005/2006

	Age														
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
	percentage														
1995/1996															
Primary/Secondary	97	93	72	38	13	4	2	2	1	1	1	x	x	1	1
University	x	x	2	10	21	25	26	22	15	12	8	7	5	5	4
College	x	2	12	20	23	18	15	11	10	7	6	5	4	3	3
Total	**97**	**94**	**86**	**68**	**57**	**48**	**43**	**35**	**26**	**19**	**14**	**12**	**9**	**9**	**7**
2005/2006															
Primary/Secondary	95	92	77	30	10	4	2	1	1	1	x	1	x	x	x
University	x	x	2	19	27	29	30	27	21	18	11	9	8	6	5
College	1	1	9	20	23	18	12	10	10	7	5	4	4	3	3
Total	**96**	**93**	**88**	**69**	**60**	**52**	**45**	**39**	**31**	**26**	**16**	**14**	**12**	**10**	**8**

Note: The participation rate is based on a monthly average from September to April.
Source: Labour Force Survey, Statistics Canada.

Source: *Education Indicators in Canada: Report of the Pan-Canadian Education Indicators Program* 2007, p. 339

- "Revolution of Expectations" (Davies 2005)
  - 57% of parents hope for kids at university

Context: Persistent Social Class Inequalities

Western

Table 6: Participation rates by highest level of parental education, 1993-2001

Participation rates …	1993	1994	1995	1996	1997	1998	1999	2000	2001
… in any post-secondary education									
University	80.7	83.1	81.7	86.4	86.4	80.5	83.8	80.3	81.1
Post-secondary certificate or diploma	63.7	67.3	65.7	70.7	69.8	69.5	67.0	67.8	68.2
High school or less	49.6	52.4	54.2	56.5	56.7	55.9	53.7	51.8	52.5
… in university									
University	47.7	52.5	53.2	59.7	54.9	48.2	52.8	49.2	49.6
				(2.435)	(2.230)	(2.549)	(2.295)	(2.288)	(2.378)
Post-secondary certificate or diploma	26.3	28.7	26.1	33.0	31.7	30.6	27.0	26.3	27.8
				(2.340)	(2.421)	(2.137)	(1.580)	(1.487)	(1.613)
High school or less	16.9	19.0	19.4	18.7	19.0	18.2	17.5	16.5	16.6
				(1.237)	(1.360)	(1.311)	(0.998)	(1.021)	(1.005)

Source: Participation in Post-secondary Education in Canada (Statistics Canada, 2005, p. 34)

- University participation significantly related to parental levels of education
- No change in this relationship over time

Context:
Persistent Social Class Inequalities

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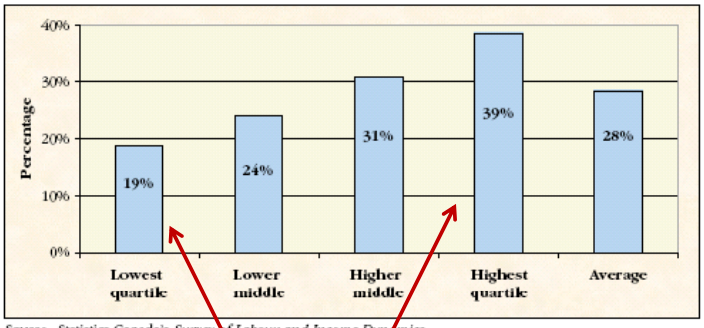
FIGURE 2.V.2 — PROPORTION OF 18- TO 21-YEAR-OLDS HAVING ATTENDED UNIVERSITY BETWEEN 1993 AND 1998 BY AFTER-TAX FAMILY INCOME*



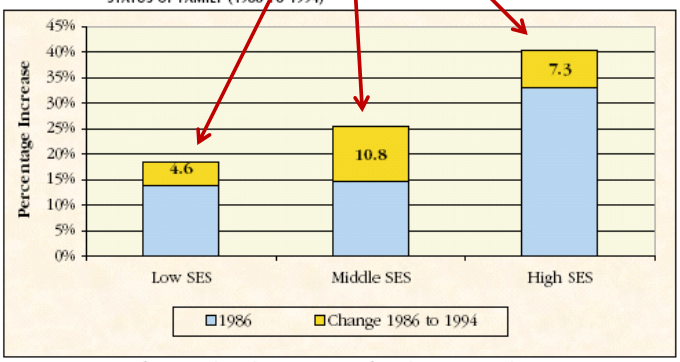
Source: Statistics Canada's *Survey of Labour and Income Dynamics*
Notes: * The percentage point differences between the highest quartile and the lower and lower-middle quartiles are significant at .01; all other percentage point differences are statistically

Tables taken from:
The Price of Knowledge (2002, p. 49 & 51)

Increases in past two decades more pronounced for young people from middle and high socio-economic status (SES) families

Higher family incomes increase chances of participation

FIGURE 2.V.4 — UNIVERSITY PARTICIPATION RATES OF 18- TO 21-YEAR-OLDS BY SOCIO-ECONOMIC STATUS OF FAMILY (1986 TO 1994)



Source: Statistics Canada's *General Social Survey*, as reported in *Education Quarterly Review* 2000: vol. 6, no. 4

Context
University & Social Class

Western

Some examples

- Access
  - E.g., Andres et al. 1999; Anisef et al. 2000; Krahn (& Lowe)
- Expectations
  - E.g., Lehmann 2004; 2005
- Experiences
  - E.g., Lehmann 2005;; Granfield 1991; Aries & Seider 2005;
- Dropout
  - Evidence in UK and US data (e.g., Walpole 2003; Quinn 2004)
  - Not in Canadian data (e.g., Grayson 1997;Statistics Canada 2000: School Leavers Follow-up Survey; Krahn 2004)

Context
University & Social Class

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Theoretical

- Rational Choice
  - Goldthorpe (1996)
    - Relatively high investment with uncertain outcomes
- Cultural Reproduction
  - Bourdieu
    - Cultural capital
    - Habitus & dislocation

Context
Tinto's Model

Western

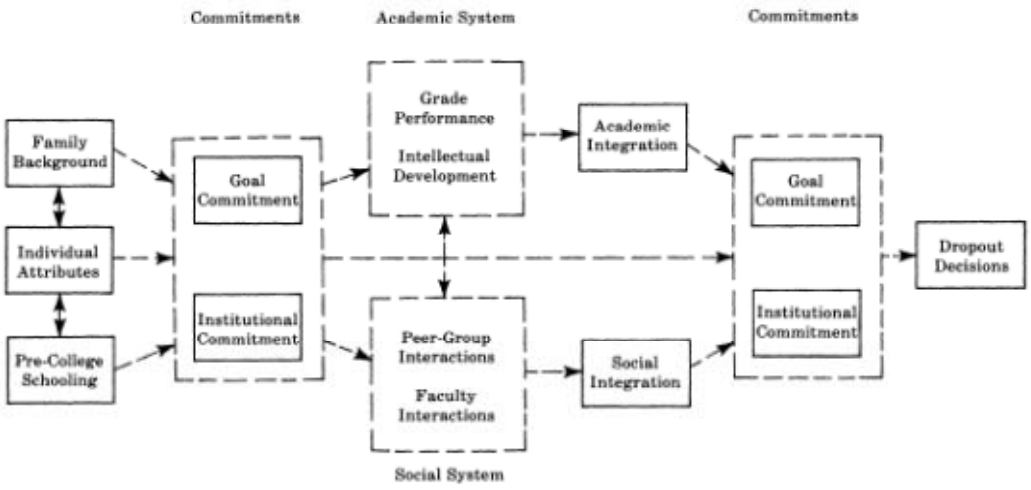

Figure 1
A conceptual Schema for Dropout from College

Research Questions

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- Is having university-educated parents or not (i.e., first-generation student status) a significant direct factor in university attrition in Canada?
- Are students with high levels of social and academic integration less likely to drop out of university?
- Are students with clear career goals less likely to drop out of university?
- Does first-generation status (i.e., first in family at university) mediate the various predictors of university dropout in a way that students with parents who do not have university degrees become less socially and academically integrated and are therefore more likely to drop out of university?
- What is the role of gender?
- What is the role of employment during university?

Data: YITS

- Youth in Transition Survey (YITS).
- Longitudinal survey jointly developed by Human Resources and Skills Development Canada (HRSDC) and Statistics Canada.
- Cycle 1: 18-20 cohort
  - Administered between January and April of 2000
- Sampling frame: 29,164 households across Canada,
  - Drawn from a probability-based sample of the population and linked to Statistic Canada's Labour Force Survey (LFS).
  - In total, 23,592 individuals participated in the survey, for an overall response rate of 81 percent
- Sample size for our analyses reduced to 3819
  - Youth who were or had been enrolled at university at the time of data collection.
  - Approx. 16% of the overall sample size of the YITS survey.
  - Of this sub-sample, 213 (or 5.6%) had left university without graduating at the time of data collection.

Data: YITS

- Dependent variable:
  - Dropout status
    - “Graduate/continuer” vs. “Leaver”
- Independent variables
  - Gender
  - Parental educational attainment
    - Determines FG status
  - Social integration at university
    - Index created from questions re: friendships, belonging, etc.
  - Academic integration at university
    - Index created from questions re: attendance, deadlines, homework, comprehension of material, etc.
  - Clarity of future career goals
    - Index created from questions re: career plans, seeing connections between university and work, etc.
  - Hours worked off campus during academic year
  - Academic and social integration during high school
    - Indices created from questions re: friendships, involvement, relationships with teachers, enjoying learning, etc.

Results

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Table 1. Percentage of university students in sample who left university without graduating, by various characteristics (YITS, 18-20 cohort, cycle 1)

	%
Total	5.1
Parent's Education	
Below University (both parents)	5.9
University degree (at least one parent)	4.2
Social Integration in High School	
Low	5.9
High	4.1
Academic Integration in High School	
Low	5.3
High	5.0
Academic Integration at University	
Low	6.8
High	3.5
Social Integration at University	
Low	6.2
High	3.3
Clarity of Future Plans	
Low	6.7
High	2.8
Gender	
Male	6.4
Female	4.1
Hours Worked during Term	
1- 29 hours	6.4
>30 hours	15.7
Not worked at all	3.6

Note: All results have been weighted

Results

Western

Table 2: Clarity of future plans, university integration and hours worked by first-generation student status; (YITS, 18-20 cohort, cycle 1)

	Parents with University Education	Parents without University Education
Variables	%	%
Total		
Clarity of Future Plans		
Low	59.7	56.8
High	40.3	43.2
Social Integration at University		
Low	58.4	65.5
High	41.6	34.5
Academic Integration at University		
Low	48.8	50.4
High	51.2	49.6
Hours Worked during Term		
1- 29 hours	39.2	42.2
>30 hours	2.4	3.5
Not worked at all	58.4	54.3

Note: All results have been weighted

Table 3. Logistic regression model of leaving university without graduating (YITS, 18-20 cohort, cycle 1)

Variables	Model 1 exp^{β}	Model 2 exp^{β}	Model 3 exp^{β}	Model 4 exp^{β}	Model 5 exp^{β}
Parent's Education					
Below University (both parents)	1.00				
University degree (at least one parent)	.695				
Social Integration in High School					
Low					
High					
Academic Integration in High School					
Low					
High					
Academic Integration at University					
Low					
High					
Social Integration at University					
Low					
High					
Clarity of Future Plans					
Low					
High					
Gender					
Male	1.00				
Female	.614**				
Hours Worked during Term					
1- 29 hours					
>30 hours					
Not worked at all					
Wald Chi-square	8.38 (2)				
Log Pseudo-Likelihood	-762.78				
Model Significance	0.015				

Note: *** Significant at 0.01; ** Significant at 0.05; * Significant at 0.1

Table 3. Logistic regression model of leaving university without graduating (YITS, 18-20 cohort, cycle 1)

Variables	Model 1 exp^{β}	Model 2 exp^{β}	Model 3 exp^{β}	Model 4 exp^{β}	Model 5 exp^{β}
Parent's Education					
Below University (both parents)	1.00	1.00			
University degree (at least one parent)	.695	.713			
Social Integration in High School					
Low					
High					
Academic Integration in High School					
Low					
High					
Academic Integration at University					
Low		1.00			
High		.525***			
Social Integration at University					
Low		1.00			
High		.555**			
Clarity of Future Plans					
Low					
High					
Gender					
Male	1.00	1.00			
Female	.614**	.647*			
Hours Worked during Term					
1- 29 hours					
>30 hours					
Not worked at all					
Wald Chi-square	8.38 (2)	19.29 (4)			
Log Pseudo-Likelihood	-762.78	-746.71			
Model Significance	0.015	0.000			

Note: *** Significant at 0.01; ** Significant at 0.05; * Significant at 0.1

Western

Table 3. Logistic regression model of leaving university without graduating (YITS, 18-20 cohort, cycle 1)

Variables	Model 1 exp^{β}	Model 2 exp^{β}	Model 3 exp^{β}	Model 4 exp^{β}	Model 5 exp^{β}
Parent's Education					
Below University (both parents)	1.00	1.00	1.00		
University degree (at least one parent)	.695	.713	.693		
Social Integration in High School					
Low					
High					
Academic Integration in High School					
Low					
High					
Academic Integration at University					
Low		1.00	1.00		
High		.525***	.627**		
Social Integration at University					
Low		1.00	1.00		
High		.555**	.618		
Clarity of Future Plans					
Low			1.00		
High			.508**		
Gender					
Male	1.00	1.00	1.00		
Female	.614**	.647*	.636*		
Hours Worked during Term					
1- 29 hours					
>30 hours					
Not worked at all					
Wald Chi-square	8.38 (2)	19.29 (4)	27.92 (5)		
Log Pseudo-Likelihood	-762.78	-746.71	-738.24		
Model Significance	0.015	0.000	0.000		

Note: *** Significant at 0.01; ** Significant at 0.05; * Significant at 0.1

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Table 3. Logistic regression model of leaving university without graduating (YITS, 18-20 cohort, cycle 1)

Variables	Model 1 exp^{β}	Model 2 exp^{β}	Model 3 exp^{β}	Model 4 exp^{β}	Model 5 exp^{β}
Parent's Education					
Below University (both parents)	1.00	1.00	1.00	1.00	
University degree (at least one parent)	.695	.713	.693	.720	
Social Integration in High School					
Low					
High					
Academic Integration in High School					
Low					
High					
Academic Integration at University					
Low		1.00	1.00	1.00	
High		.525***	.627**	.607**	
Social Integration at University					
Low		1.00	1.00	1.00	
High		.555**	.618	.686	
Clarity of Future Plans					
Low			1.00	1.00	
High			.508**	.517**	
Gender					
Male	1.00	1.00	1.00	1.00	
Female	.614**	.647*	.636*	.591**	
Hours Worked during Term					
1- 29 hours				1.00	
>30 hours				2.394**	
Not worked at all				.530**	
Wald Chi-square	8.38 (2)	19.29 (4)	27.92 (5)	41.95 (7)	
Log Pseudo-Likelihood	-762.78	-746.71	-738.24	-722.95	
Model Significance	0.015	0.000	0.000	0.000	

Note: *** Significant at 0.01; ** Significant at 0.05; * Significant at 0.1

Table 3. Logistic regression model of leaving university without graduating (YITS, 18-20 cohort, cycle 1)

Variables	Model 1 exp^{β}	Model 2 exp^{β}	Model 3 exp^{β}	Model 4 exp^{β}	Model 5 exp^{β}
Parent's Education					
Below University (both parents)	1.00	1.00	1.00	1.00	1.00
University degree (at least one parent)	.695	.713	.693	.720	.714
Social Integration in High School					
Low					
High					1.00
Academic Integration in High School					.716
Low					
High					1.00
Academic Integration at University					.835
Low		1.00	1.00	1.00	1.00
High		.525***	.627**	.607**	.588**
Social Integration at University					
Low		1.00	1.00	1.00	1.00
High		.555**	.618	.686	.686
Clarity of Future Plans					
Low			1.00	1.00	1.00
High			.508**	.517**	.518**
Gender					
Male	1.00	1.00	1.00	1.00	1.00
Female	.614**	.647*	.636*	.591**	.599**
Hours Worked during Term					
1- 29 hours				1.00	1.00
>30 hours				2.394**	2.388**
Not worked at all				.530**	.537**
Wald Chi-square	8.38 (2)	19.29 (4)	27.92 (5)	41.95 (7)	49.48 (9)
Log Pseudo-Likelihood	-762.78	-746.71	-738.24	-722.95	-720.59
Model Significance	0.015	0.000	0.000	0.000	0.000

Note: *** Significant at 0.01; ** Significant at 0.05; * Significant at 0.1

Summary of Findings

Western

- First-generation status
  - Percentage differences expected
    - Higher percentage of FG dropouts
    - FG less integrated
    - FG more likely to work
    - But also: FG more likely to have clear career goals
  - Regression results show FG status NOT significant predictor of dropping out
- What predicts dropping out?
  - Academic integration (lowers risk)
  - Having clear career goals (lowers risk)
  - Working during term (increases risk)
  - Being a man (increases risk)

Discussion

- FG still an important consideration
  - Importance of work during academic year
  - Affects FG and low SES students
- Socialization experiences in high school
  - Are those at university already different from other low SES high school students?
  - Role of streaming and mentoring at HS for university access
- Reasons for dropping out
  - Voluntary vs. “forced”
  - Timing of dropout decision
- Dropout vs. stopout
  - Who returns to university?
  - Who returns to other PSE?

How does this relate to other research?

Western

Qualitative studies (e.g., Lehmann 2007; Aries & Seider 2005; Quinn 2004)

- Social background does play an important role in how students experience university
  - Crucial in forming dispositions to either persist or drop out
  - Access to resources (e.g., tutors, money)
- First-generations students
  - More likely to leave early, despite strong academic achievement
  - Not *feeling* university
  - Not fitting in
  - Not being able to relate
  - Discover *true* vocational nature
- Importance of habitus (Bourdieu)
  - Evidence of habitus dislocation and habitus-based self-censorship (Bourdieu)

How does this relate to other research?

Western

More recent YITS analysis; using data from first 4 cycles (age 24-26 in Dec 2005)

Shaienks, D., & Gluszynski, T. (2009). *Education and Labour Market Transitions in Young Adulthood; Catalogue no. 81-595-M — No. 075*. Ottawa: Statistics Canada.

- The following factors were found to be related to dropping out
  - Being male (increases risk)
  - Being 26+ (increases risk)
  - Have parents with incomplete PSE (increases risk)
    - NOTE: parents with low levels of educational attainment not significant)
  - Few homework hours in HS (increases risk)
  - High grades in HS (80+) (lowers risk)
- Did not control for employment during studies or integration/engagement at university

Policy Implications

Western

- Need to better understand reasons for dropping out to develop preventive programs
  - Dropout/stopout
  - Timing
  - Financial reasons
  - Integration
  - Academic
- Needs-based financial support for low SES, FG students
  - Importance of work in analysis
  - Academically relevant employment opportunities?
- Research at primary and secondary education levels
- Renew discussion on range of PSE alternatives
  - University vs. community college vs. apprenticeship and vocational education