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# Leaving University without Graduating: Evidence from Canada's Youth in Transition Survey

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**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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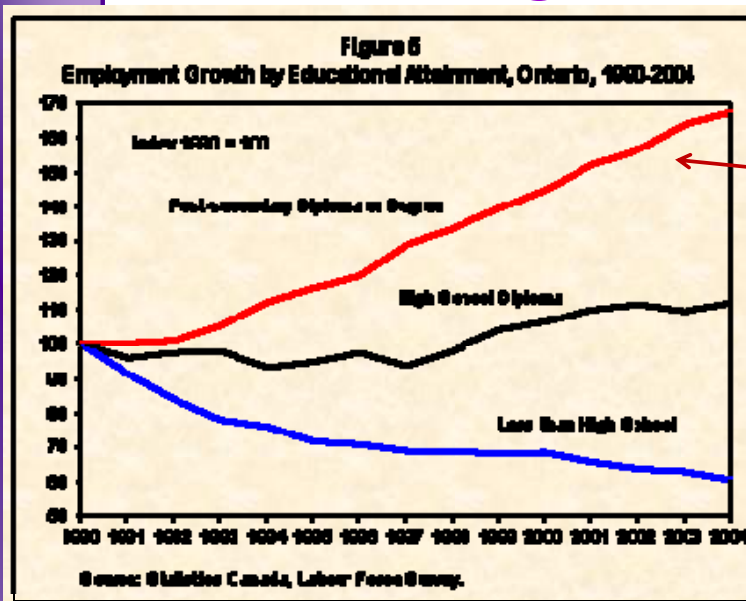
## Outline



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- **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



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

	All levels	Less than high school <sup>1</sup>	High school <sup>2</sup>	College or trade <sup>3</sup>	University <sup>4</sup>
			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

Education =  
lower chances  
of un-  
employment

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

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.

## Labour Market Outcomes

### Income



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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	University
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



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														
<b>1995/1996</b>															
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
<b>Total</b>	<b>97</b>	<b>94</b>	<b>86</b>	<b>68</b>	<b>57</b>	<b>48</b>	<b>43</b>	<b>35</b>	<b>26</b>	<b>19</b>	<b>14</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>7</b>
<b>2005/2006</b>															
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
<b>Total</b>	<b>96</b>	<b>93</b>	<b>88</b>	<b>69</b>	<b>60</b>	<b>52</b>	<b>45</b>	<b>39</b>	<b>31</b>	<b>26</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>10</b>	<b>8</b>

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



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

Participation rates ...	1993	1994	1995	1996	1997	1998	1999	2000	2001
<i>... in any post-secondary education</i>									
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
<i>... in university</i>									
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

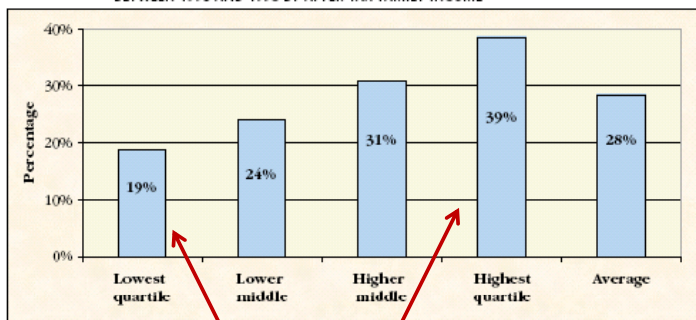


# Context: Persistent Social Class Inequalities



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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*

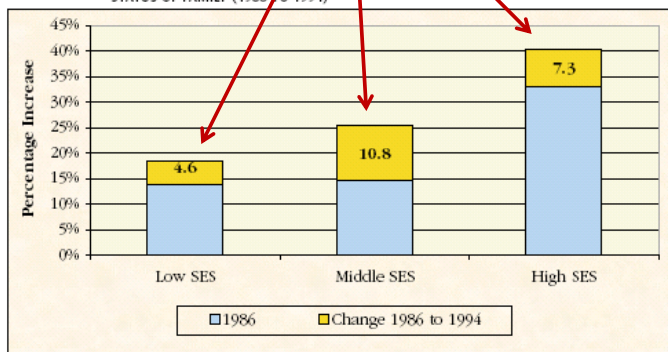
Notes: \* The percentage point differences between the highest quartile and the lower and lower-middle quartiles are significant at .01; all other percentage point differences are statistically

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



#### ***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



### ***Theoretical***

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

# Context Tinto's Model

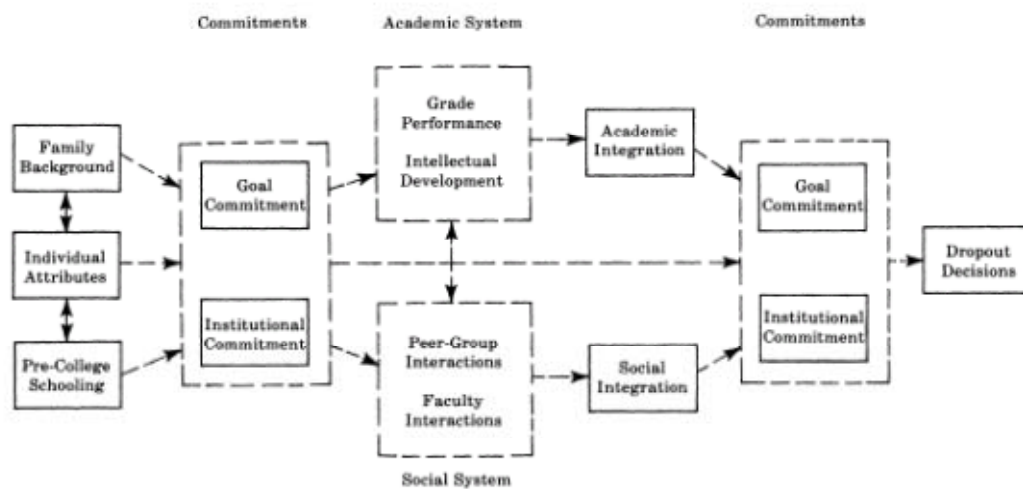


Figure 1  
A conceptual Schema for Dropout from College

## 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



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- 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)**

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

Note: All results have been weighted



# Results




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

Variables	Parents with University Education	Parents without University Education
	%	%
<b>Total</b>		
<b>Clarity of Future Plans</b>		
Low	59.7	56.8
High	40.3	43.2
<b>Social Integration at University</b>		
Low	58.4	65.5
High	41.6	34.5
<b>Academic Integration at University</b>		
Low	48.8	50.4
High	51.2	49.6
<b>Hours Worked during Term</b>		
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 <sup>β</sup>	Model 2 exp <sup>β</sup>	Model 3 exp <sup>β</sup>	Model 4 exp <sup>β</sup>	Model 5 exp <sup>β</sup>
<b>Parent's Education</b>					
Below University (both parents)	1.00				
University degree (at least one parent)	.695				
<b>Social Integration in High School</b>					
Low					
High					
<b>Academic Integration in High School</b>					
Low					
High					
<b>Academic Integration at University</b>					
Low					
High					
<b>Social Integration at University</b>					
Low					
High					
<b>Clarity of Future Plans</b>					
Low					
High					
<b>Gender</b>					
Male		1.00			
Female		.614**			
<b>Hours Worked during Term</b>					
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 <sup>β</sup>	Model 2 exp <sup>β</sup>	Model 3 exp <sup>β</sup>	Model 4 exp <sup>β</sup>	Model 5 exp <sup>β</sup>
<b>Parent's Education</b>					
Below University (both parents)	1.00	1.00			
University degree (at least one parent)	.695	.713			
<b>Social Integration in High School</b>					
Low					
High					
<b>Academic Integration in High School</b>					
Low					
High					
<b>Academic Integration at University</b>					
Low		1.00			
High		.525***			
<b>Social Integration at University</b>					
Low		1.00			
High		.555**			
<b>Clarity of Future Plans</b>					
Low					
High					
<b>Gender</b>					
Male	1.00	1.00			
Female	.614**	.647*			
<b>Hours Worked during Term</b>					
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



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

Variables	Model 1 exp <sup>β</sup>	Model 2 exp <sup>β</sup>	Model 3 exp <sup>β</sup>	Model 4 exp <sup>β</sup>	Model 5 exp <sup>β</sup>
<b>Parent's Education</b>					
Below University (both parents)	1.00	1.00	1.00		
University degree (at least one parent)	.695	.713	.693		
<b>Social Integration in High School</b>					
Low					
High					
<b>Academic Integration in High School</b>					
Low					
High					
<b>Academic Integration at University</b>					
Low		1.00	1.00		
High		.525***	.627**		
<b>Social Integration at University</b>					
Low		1.00	1.00		
High		.555**	.618		
<b>Clarity of Future Plans</b>					
Low			1.00		
High			.508**		
<b>Gender</b>					
Male	1.00	1.00	1.00		
Female	.614**	.647*	.636*		
<b>Hours Worked during Term</b>					
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



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

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



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

Variables	Model 1 exp <sup>β</sup>	Model 2 exp <sup>β</sup>	Model 3 exp <sup>β</sup>	Model 4 exp <sup>β</sup>	Model 5 exp <sup>β</sup>
<b>Parent's Education</b>					
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
<b>Social Integration in High School</b>					
Low					
High					1.00
<b>Academic Integration in High School</b>					
Low					.716
High					1.00
<b>Academic Integration at University</b>					
Low		1.00	1.00	1.00	.835
High		.525***	.627**	.607**	1.00
<b>Social Integration at University</b>					
Low		1.00	1.00	1.00	1.00
High		.555**	.618	.686	.686
<b>Clarity of Future Plans</b>					
Low			1.00	1.00	1.00
High			.508**	.517**	.518**
<b>Gender</b>					
Male	1.00	1.00	1.00	1.00	1.00
Female	.614**	.647*	.636*	.591**	.599**
<b>Hours Worked during Term</b>					
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



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- 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



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- **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?



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### **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?



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### ***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



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- 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