



# **Provincial Variation in the Causal Dynamics of Youth Poverty**

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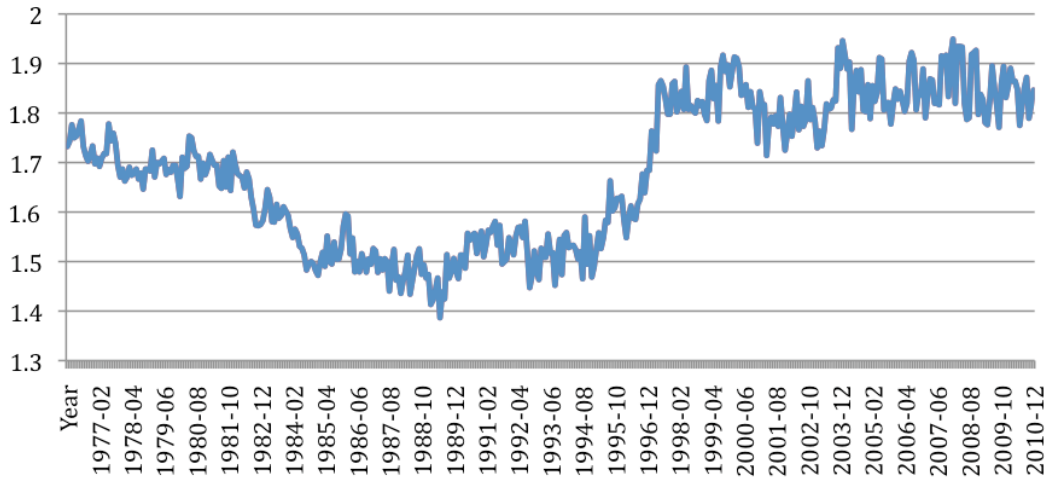
# Literature

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- ▶ **Timing/ordering of life-course events increasingly varied since the mid 1970s**
  - ▶ Longer periods in education
  - ▶ Shorter job tenure, higher job mobility
  - ▶ More combination of school/work
  - ▶ Delayed transitions to adult states/activities
  
- ▶ **Variability in the life-course linked to:**
  - ▶ Rising economic pressures on youth
  - ▶ Increased vulnerability of youth to various types of employment/financial uncertainty
    - ▶ (Blossfeld, et al. 2005, 2010, 2011)



**Figure 1. Ratio of youth unemployment (ages 15-24) to overall unemployment (ages 15 and over) (seasonally adjusted)**

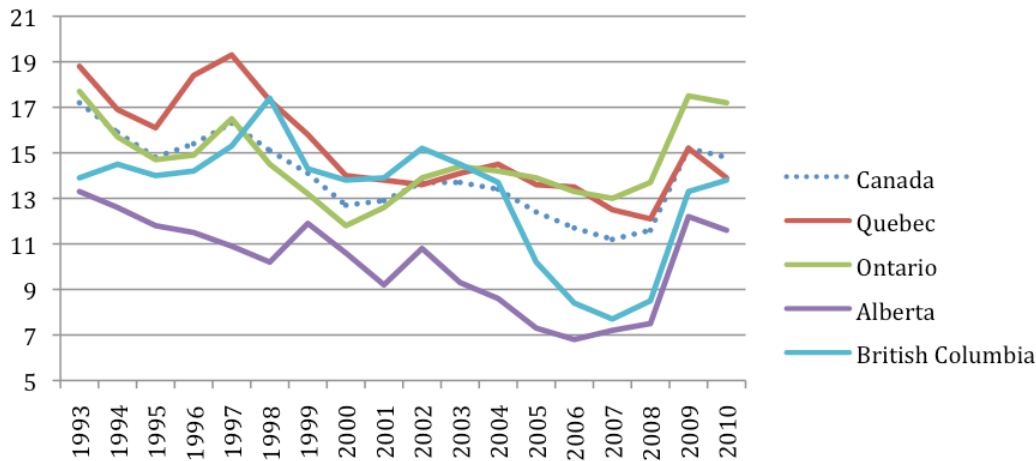


## LM Fortunes of Youth in Canada

1) Youth : Overall unemployment rises to nearly 2:1 after 1994

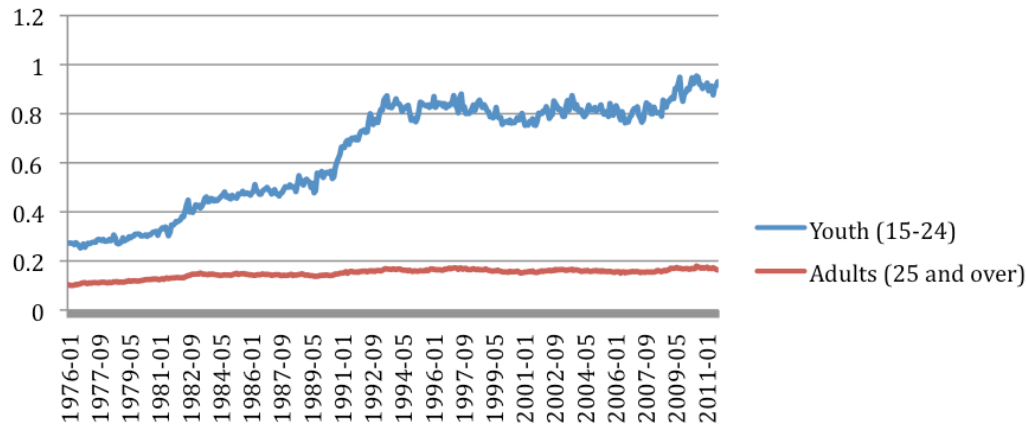
2) Absolute youth unemployment declines from 1993-2008

**Figure 2. Unemployment rate among youth, (15 to 24)**



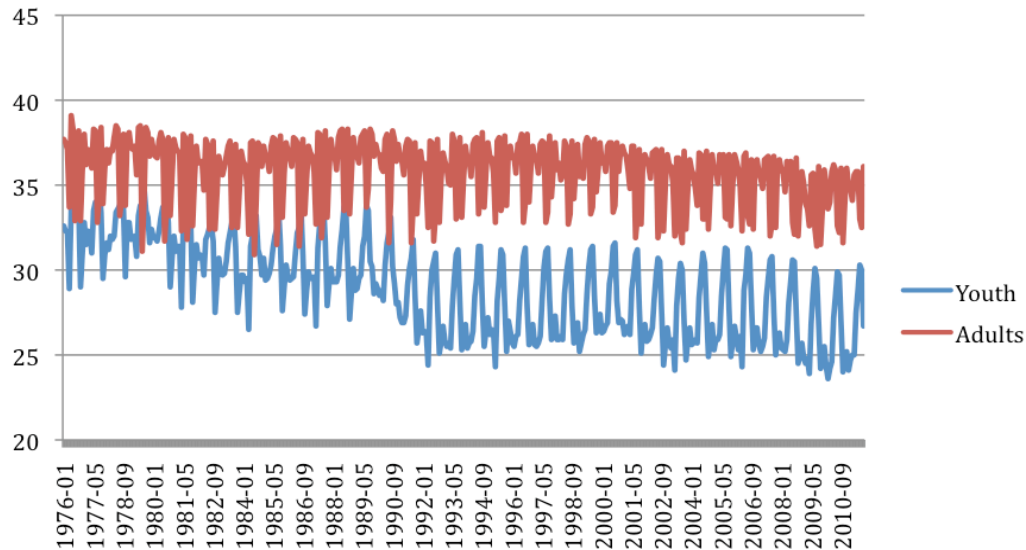
Source: Cansim II: Labour Force Survey

**Figure 4. Ratio of part-time : full-time work**



Source: Cansim II: Labour Force Survey

**Figure 5. Average actual hours worked per week (1976-2011)**



Source: Cansim II: Labour Force Survey

## LM Fortunes of Youth in Canada

1) After 1989, the rate of part-time work among youth increases and stays fairly stable

2) After 1989, The average actual hours worked by youth declines and stays fairly stable.

3) Adult rates of part-time work and average actual hours worked stay fairly stable.

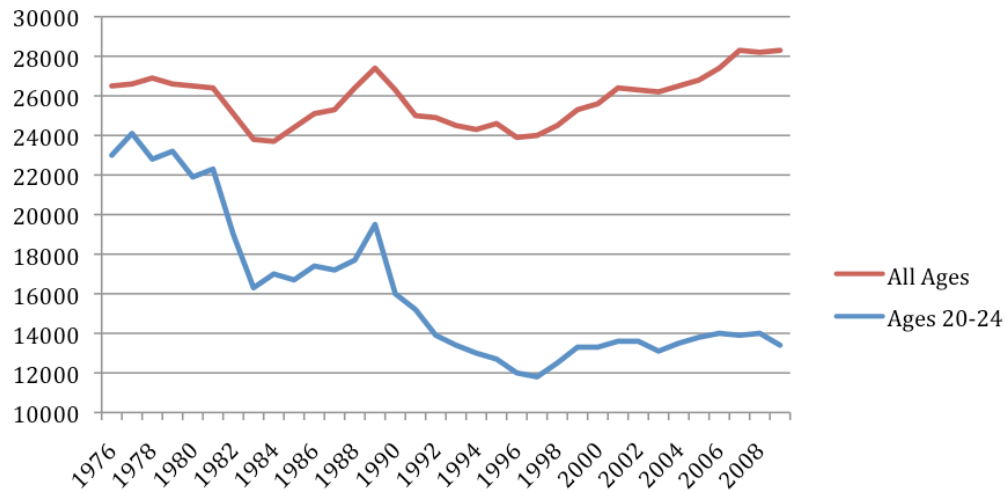
# Trading Work for School

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- ▶ Rise in PSE participation independent of LM fortunes (Lemieux, Beaudry and Parent 1999)
- ▶ Fundamental shift in the employment patterns of youth:
  - ▶ higher rates of temporary, seasonal, part-time labour, and increased employment of students (Picot & Sweetman 2005)
- ▶ Negative impact on median youth income and youth poverty rates

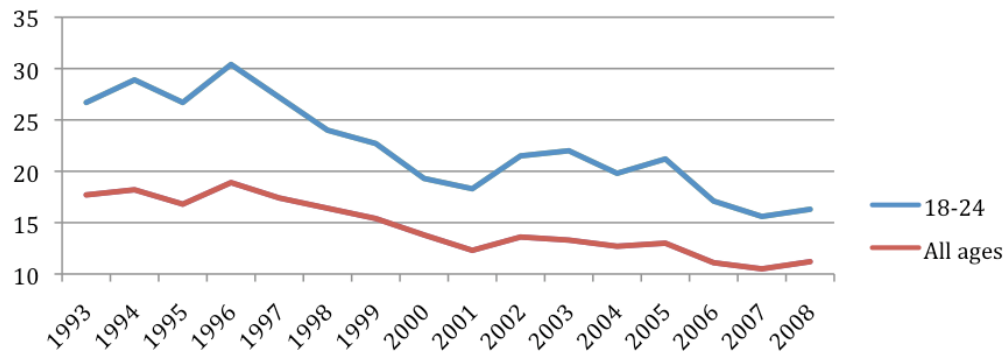


### Figure 6. Median Total Income



Source: CANSIM II: Survey of Consumer Finances, Survey of Labour and Income Dynamics

### Figure 7. LICO after tax, 1992 base, % of persons below, 18-24 vs. all ages (Canada)



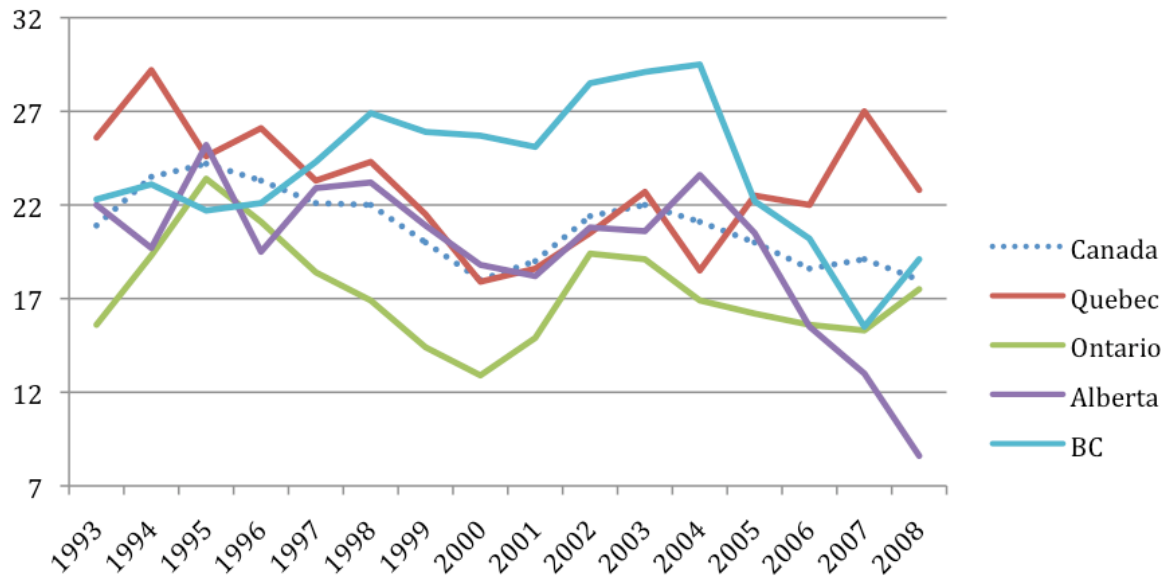
Source: CANSIM II: Survey of Consumer Finances, Survey of Labour and Income Dynamics

## Declining Fortunes of Youth in Canada

- 1) 1989-1996: drop in median income
- 2) After 1996, some recovery in median income
- 3) After 1996, decline in youth poverty (LIM and MBM similarly decline)

## Declining Fortunes of Youth in Canada

**Figure 11. LIM after tax, % of persons below, ages 18-24**



Source: CANSIM II: Survey of Consumer Finances, Survey of Labour and Income Dynamics

According to the LIM (between 1999-2005) youth poverty is:

- 1) Highest in BC
- 2) Lowest in Ontario
- 3) About average in Quebec and Ontario

\* These patterns are also evident in LICO and MBM data.

# Research Questions

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- ▶ Are there provincial differences in the variability of the life-course?
- ▶ Do these differences coincide with provincial differences in youth poverty rates?





# Hypotheses

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- ▶ From 1999-2005, *ceteris paribus*,
  - ▶ levels of life-course variability should be:
    - ▶ 1) Highest in British Columbia
    - ▶ 2) Lowest in Ontario
    - ▶ 3) About average in Quebec and Alberta



# Data

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- ▶ Statistics Canada's Youth in Transition Survey (YITS)
- ▶ Cycles 1-5 (1999-2007)
- ▶ Cohort B: Youth aged 18-20 at beginning of survey
  
- ▶ Analysis limited to four major provinces:
  - ▶ Quebec, Ontario, Alberta, BC
  
- ▶ Two sub-samples defined



# Sample Selection

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## ▶ **Sample 1**

- ▶ Cycles 1-4 (1999-2005)
- ▶ Ages 18-26
- ▶ All respondents
  
- ▶ Area of focus: PSE education and beginning of school-to-work transition
- ▶ Permits comparison with youth poverty rates

## ▶ **Sample 2**

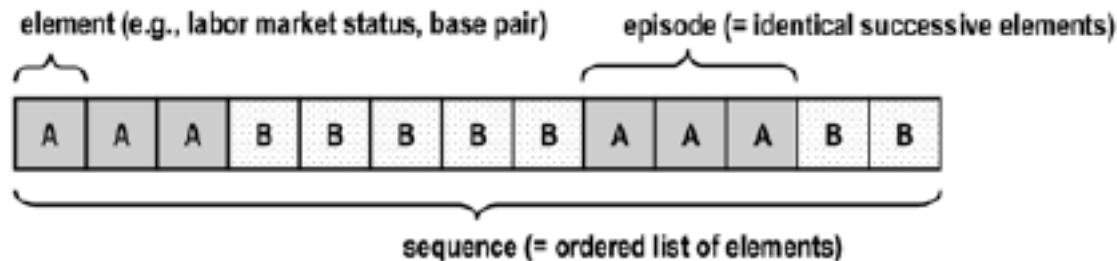
- ▶ Cycles 4-5 (2004-2007)
- ▶ Ages 23-28
- ▶ PSE graduates, non-continuers
  
- ▶ Area of focus: school-to-work transition
- ▶ Does *not* permit comparison with youth poverty rates
- ▶ Serves as control for possible effect of PSE participation rates



# Basic Concepts

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- ▶ Analysis oriented around life-course ‘elements’ (potential monthly statuses/states):
  - ▶ 1) Combined work and full-time study
  - ▶ 2) Work
  - ▶ 3) Full-time study
  - ▶ 4) Neither work nor full-time study



- ▶ Which cluster into:
  - ▶ ‘episodes’ (series of identical successive elements)
  - ▶ ‘sequences’ (complete, ordered list of elements/episodes)

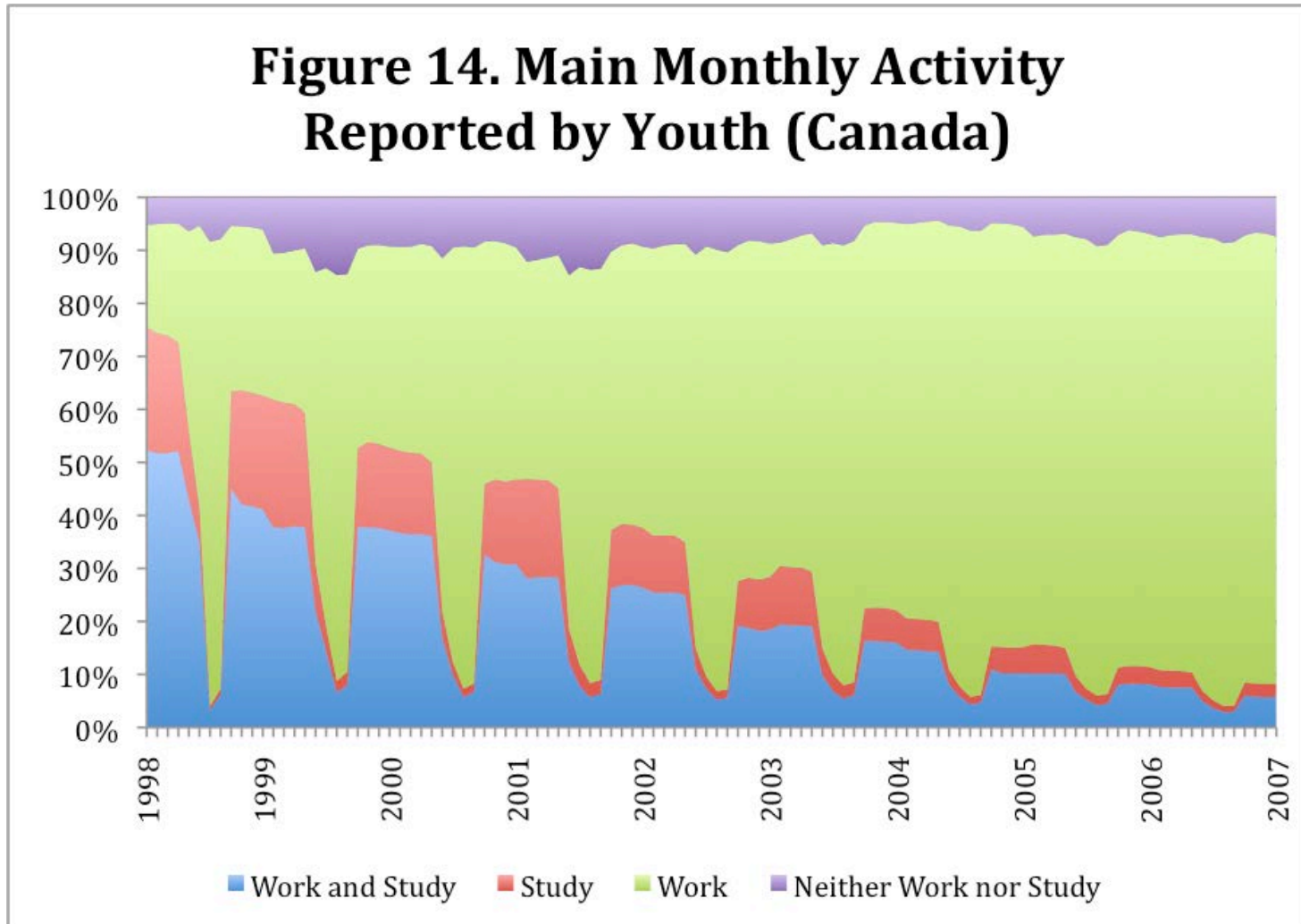
# Methodology

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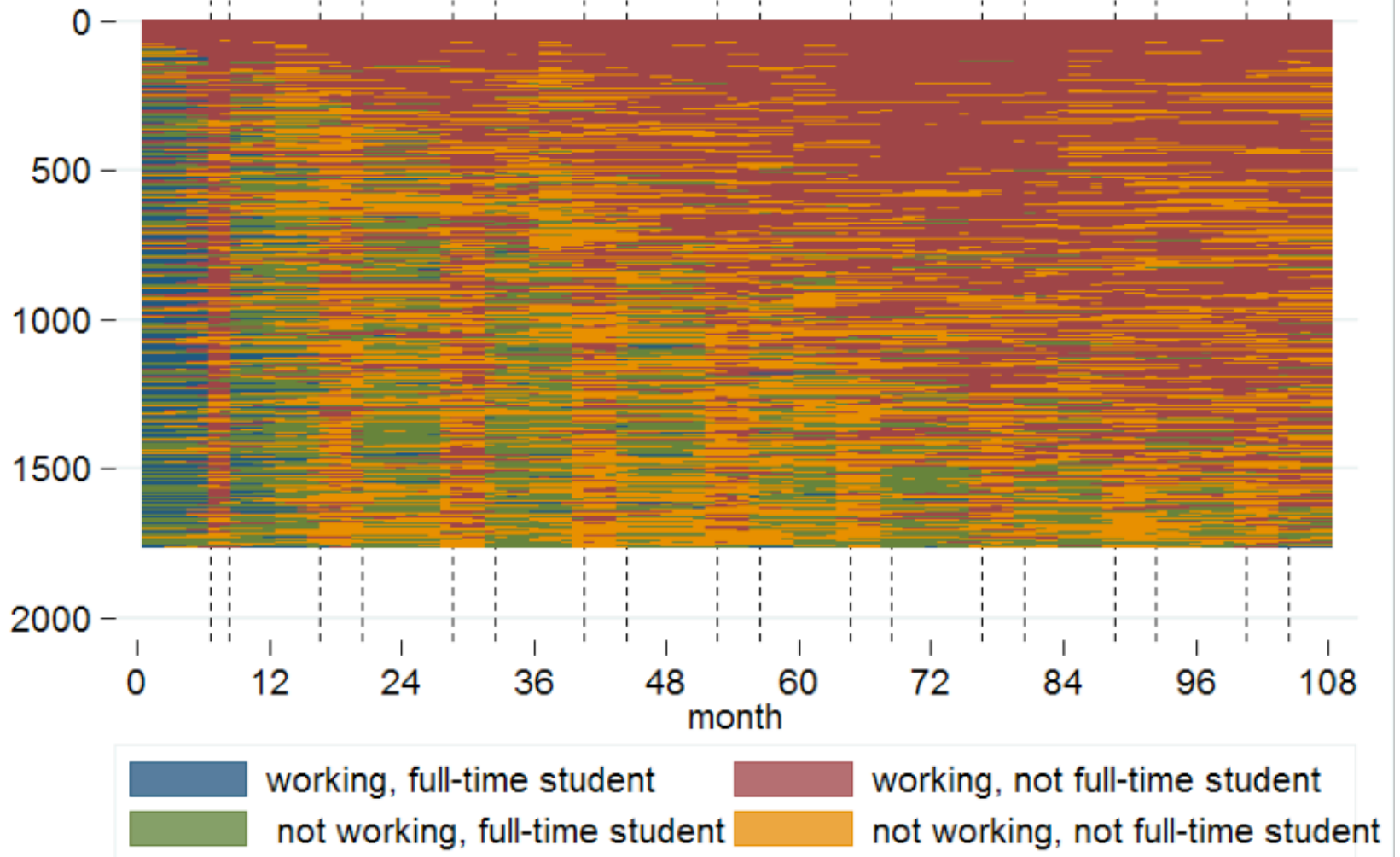
- ▶ Variability in the life-course assessed using two measures:
- ▶ Entropy (information theory)
  - ▶ Measures how dissimilar a set of statuses are *across respondents*, each month, and how this changes over time
- ▶ Complexity (Elzinga 2010)
  - ▶ Measures variability within sequences over the course of a given time-period, overall



# How Orderly/Disorderly is the Life-Course?



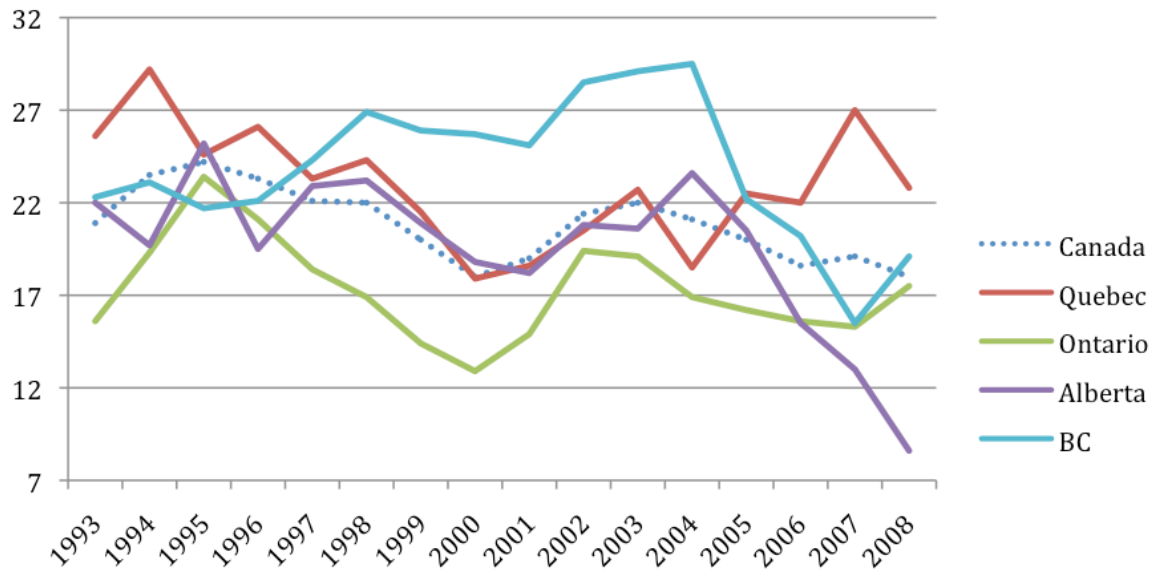
## Life-Course Event Sequences (ON)



▶ Note: Random noise has been added to this graph to protect the privacy of survey respondents.

# Measures of Variability, 1999-2005: Do they match youth poverty rates?

**Figure 11. LIM after tax, % of persons below, ages 18-24**



Source: CANSIM II: Survey of Consumer Finances, Survey of Labour and Income Dynamics

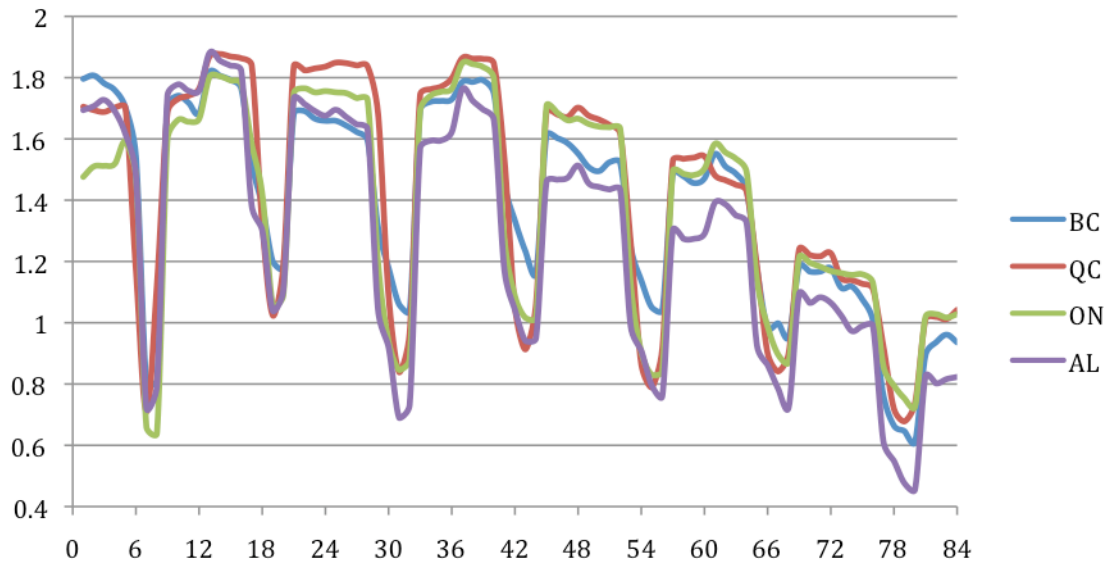
1) BC highest

2) Ontario lowest

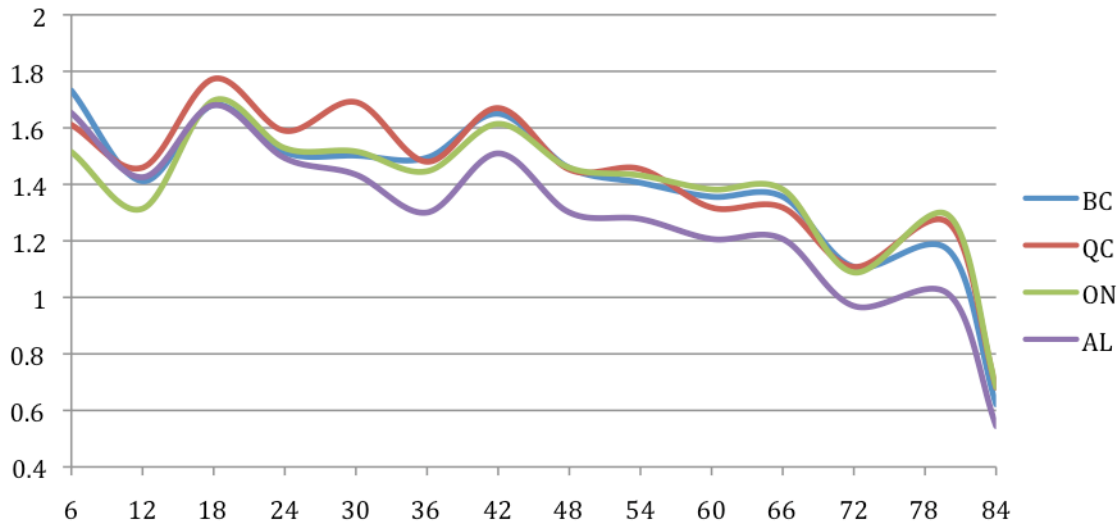
3) Quebec and Alberta intermediate



**Figure 19. Status Entropy of Sample 1  
(Monthly, 1999-2005)**



**Figure 19a. Status Entropy of Sample 1  
(Bi-Yearly Averages, 1999-2005)**



## Results

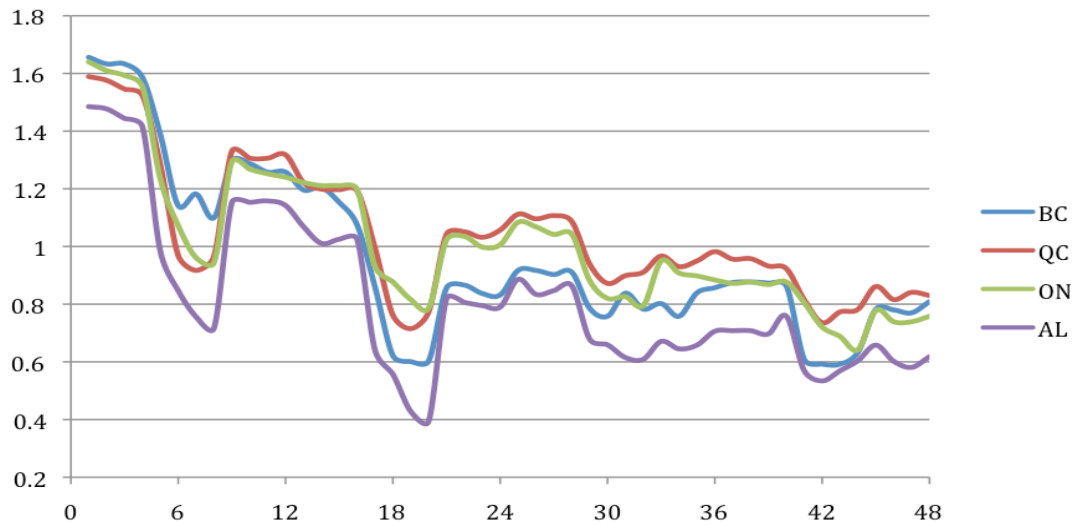
1) Hypotheses 1-3 supported only by first six months of data

2) Hypothesis 1 supported only during the summers of 2000-2004

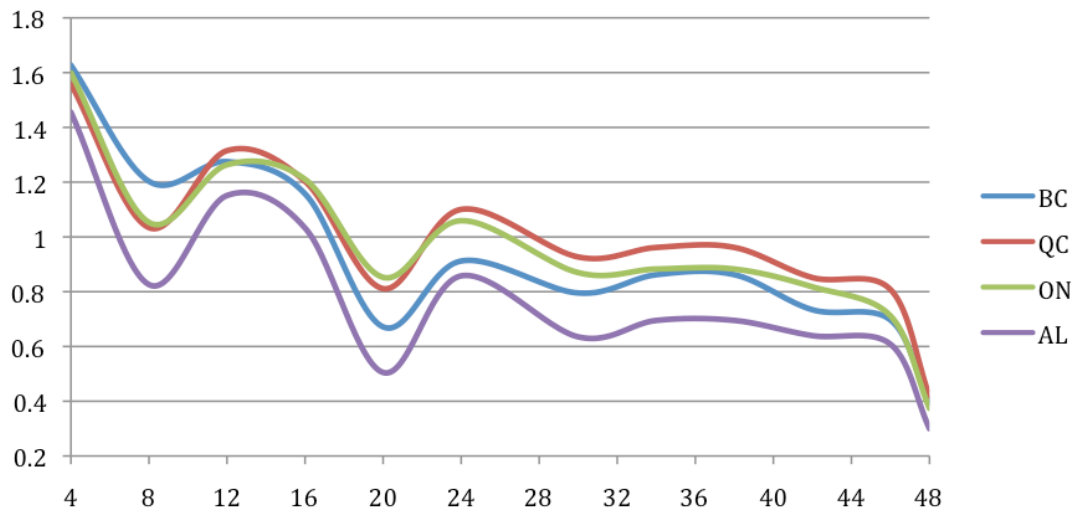
3) Little to no support for positive association between variability in the life-course and youth poverty rates

4) Lack of *any* clear connection between variability and youth poverty

**Figure 20. Status Entropy of Sample 2, After PSE Graduation, (Monthly, 2004-2007)**



**Figure 20a. Status Entropy of Sample 2, After PSE Graduation, (Tri-Yearly Average, 2004-2007)**



## Results

1) Hypotheses 1 and 3 are partially supported by first 10 months of data (BC highest, QC moderate) (this is last time period where poverty data applies)

2) Levels of entropy follow roughly the same patterns as in sample 1, with the exception of BC, whose level of entropy is lower in this sample, closer to AL.

3) Higher PSE participation rates in ON, QC do not result in inflated variability measures

# Measures of Complexity

**Table 1.** Median Complexity Values, Sample 1

	OM, no durations	XT, no durations	XT, durations
QC	27.7	9.6	12.4
ON	27.6	9.3	12.0
BC	24.0	7.6	10.2
AL	23.2	7.3	9.8

**Table 2.** Median Complexity Values, Sample 2

	OM, no durations	XT, no durations	XT, durations
QC	9.9	2.8	4.2
ON	9.2	2.8	3.9
BC	9.0	2.8	3.6
AL	7.9	2	2.5

Higher values indicate:

- 1) More transitions and/or distinct states,
- 2) and/or variation in timing/duration of events, within sequences

## Results

1) Complexity measures, regardless of how they are calculated, replicate the results obtained by the entropy statistics.

2) Overall, QC has highest variability, followed by ON, BC, then AL.



# Main Conclusion

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- ▶ According to the intra-cohort comparison conducted here:
- ▶ 1) A positive relationship between greater variability in the life-course and poverty among youth is not guaranteed.
- ▶ 2) Care should be taken in positing a strong link between economic distress and life-course variability



End of Part I



# Part 2: Finding harmony between research objectives and the available data

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## The Dilemma:

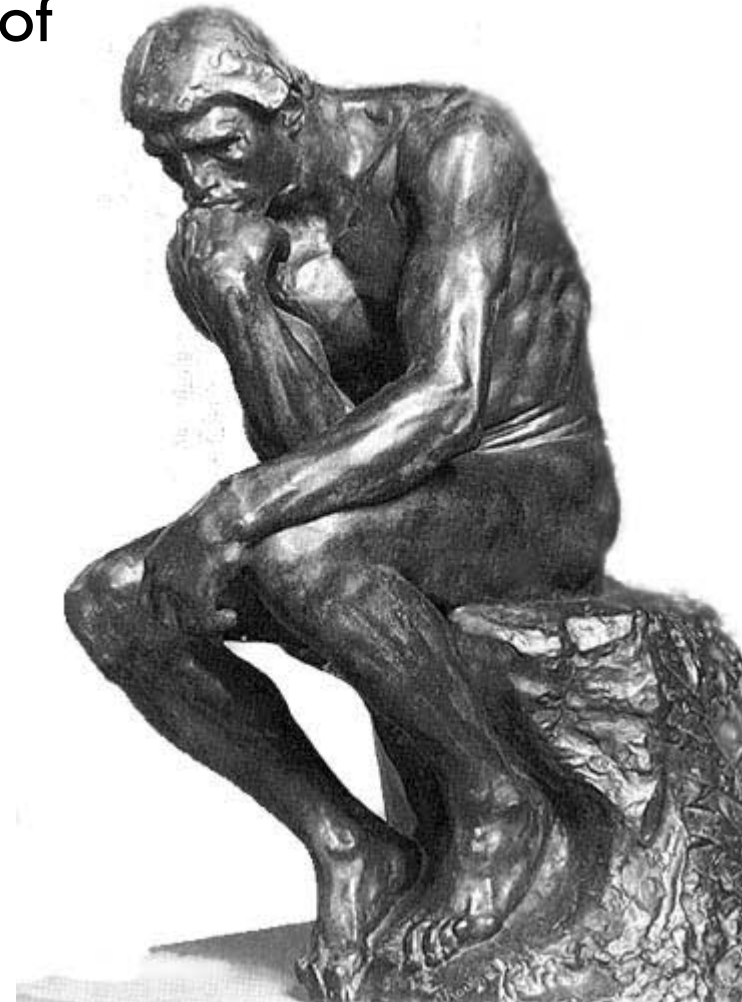
- ▶ YITS is a great source of data for those studying youth and the life-course
- ▶ YITS is a poor source of data on household income/poverty



# Solution Attempt #1 (seen earlier)

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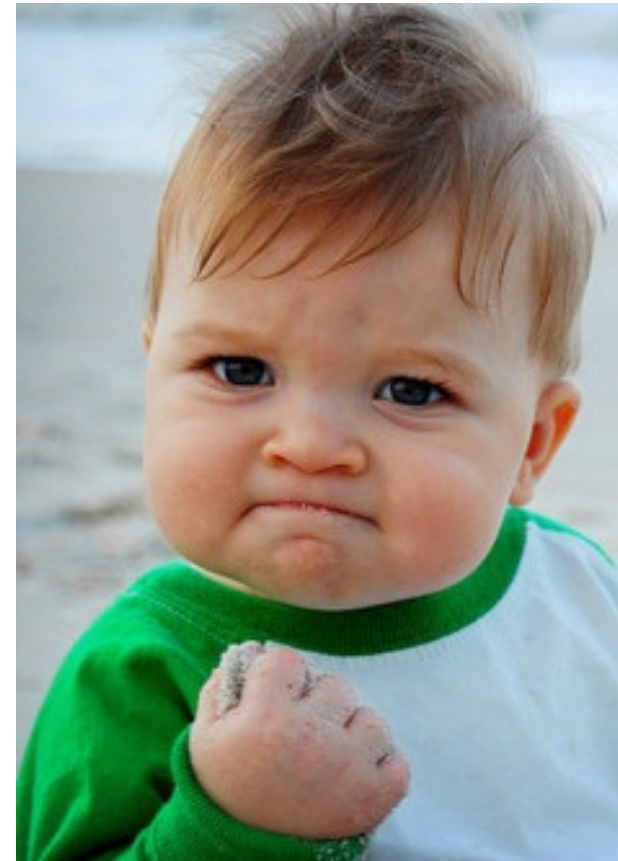
- ▶ Compare provincial-level measures of poverty and variability using YITS
  - ▶ See if they co-vary
- ▶ Is this a valid approach?
  - ▶ Debatable.
- ▶ Weaknesses
  - ▶  $n=4$
  - ▶ Analysis limited by sample size
  - ▶ Findings contradict previous research



# Solution Attempt #2 (in progress)

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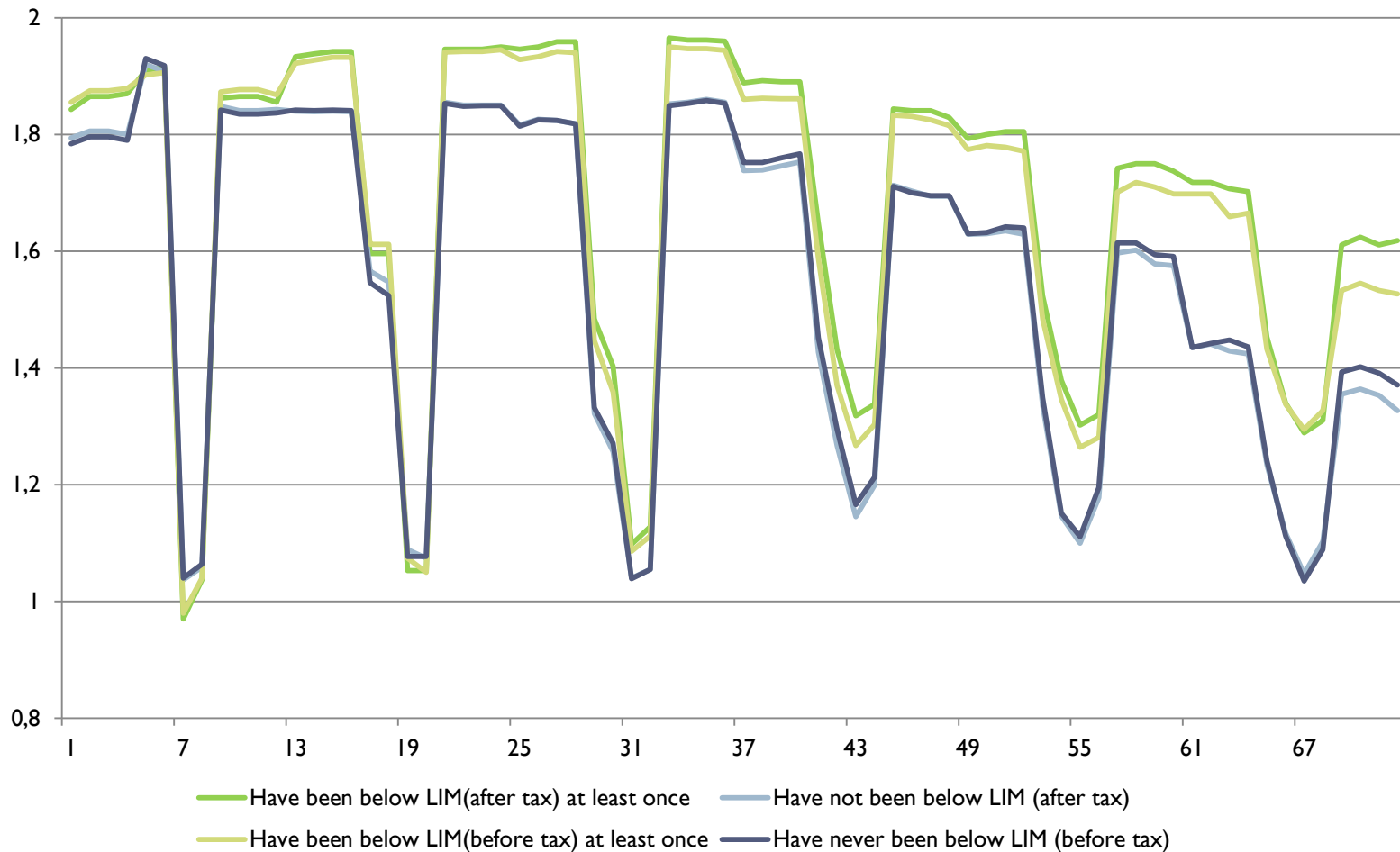
- ▶ Reproduce analysis with:
  - ▶ Survey of Labour and Income Dynamics (SLID)
- ▶ Create sub-samples of youth who have and have not experienced poverty
  - ▶ See if measures of variability differ
- ▶ Is this a valid approach?
  - ▶ More direct measure of the relationship
- ▶ Weaknesses
  - ▶ Data less suited to explanatory analysis (n≈200)



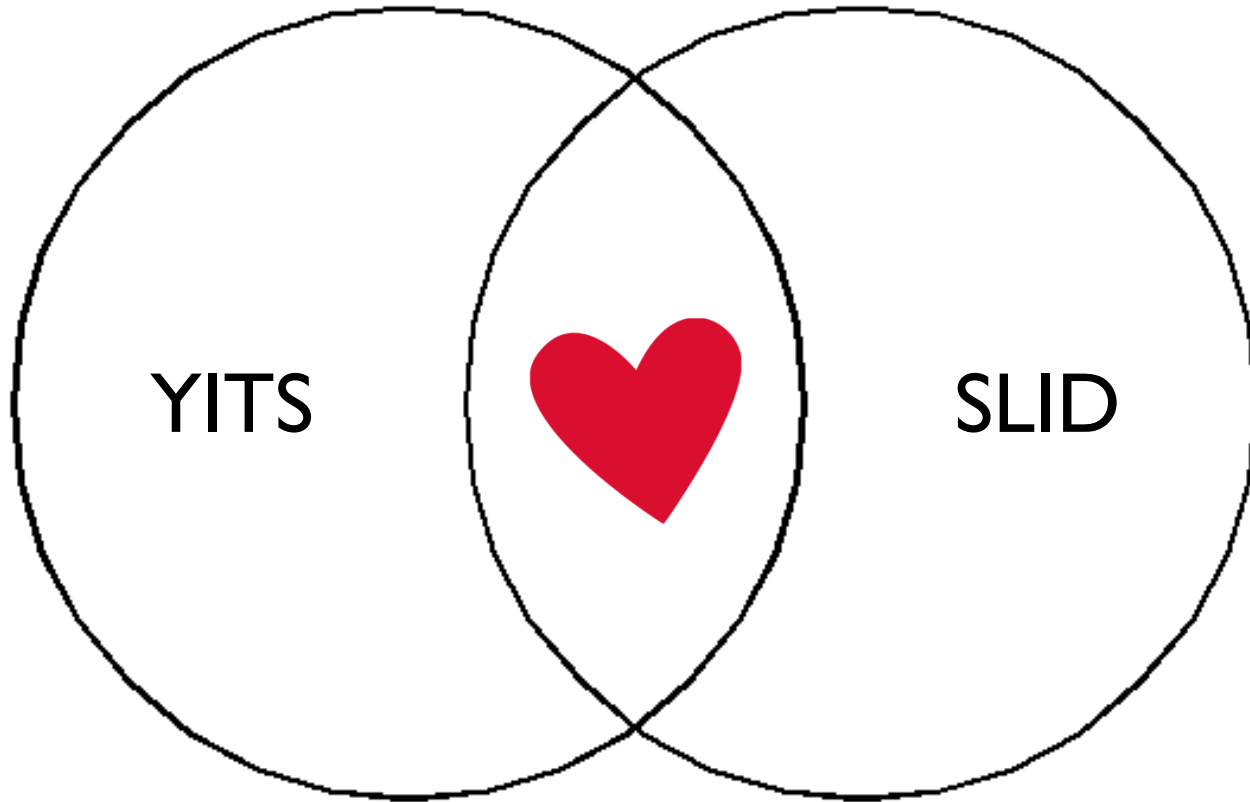


# Preliminary Results from SLID

**Figure 21. Entropy levels and experience of poverty (defined as being below LIM) among youth (1999-2004)**



Solution: match your dataset with a suitable partner



Whose weaknesses and strengths are complementary



**Thank You!**

