

Re-Examining the Transition to High School

Christopher C. Weiss

Quantitative Methods in the Social Sciences (QMSS)
Institute for Social and Economic Research and Policy (ISERP)
Columbia University

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Background – U.S. Education

- American education system is peculiar.
- System emphasizes “local control”
 - Federal government has role, but small one
 - “Action” is at state and local level.
 - Most major decisions (curriculum, personnel, etc.) made at local level.

Background – U.S. Education

- Average school's budget:
 - 7% from federal government (and this is huge increase from ten years ago)
 - Remaining share from state and local government (property tax)
- Moreover, majority of federal funding goes toward compensatory programs (Title I, special education)

Background – U.S. Education

- As a result, terrific heterogeneity in schooling patterns.
- Some common elements:
 - Almost all districts divide students by grade, based on age and previous performance.
- However, how grades are configured into separate schools varies greatly.

Background – U.S. Education

- Modal pattern today:
 - Elementary school: Grades K-5
 - Middle School: Grades 6-8
 - High School: Grades 9-12
- Note that this pattern is modal – enormous diversity of school types for middle grades.
- Middle school is recent development
 - Only emerged in 1960s.

Background

- Middle grades (grades 5 through 8) period of constant tinkering in American public education system.
 - Division of twelve grades into two parts (primary and secondary)
 - Junior high
 - Middle School
- Middle School is now modal form in U.S.
 - Now K-8 is "hot"

Background

- Despite tinkering, little satisfaction with any of these forms.
- Several districts now working to convert their middle schools into K-8 schools.
 - Philadelphia
 - Chicago
 - New York City

Why Is the Transition to High School Important?

- Perspective of studies of high school dropouts – seeds of dropping out planted in transition to high school
 - disengagement is key to understanding process.
- Ninth grade is time when performance declines substantially, particularly in urban districts.

Changes in Student Outcomes in the Transition to High School

	8 th Grade	
Grade Average	79.3	
Percentage failing one or more courses	36%	
Percentage suspended	21%	
Percentage skipping classes	8%	
Percentage with excessive absences	14%	

Changes in Student Outcomes in the Transition to High School

	8 th Grade	9 th Grade
Grade Average	79.3	73.5
Percentage failing one or more courses	36%	58%
Percentage suspended	21%	30%
Percentage skipping classes	8%	23%
Percentage with excessive absences	14%	28%

Limitations of Research on School Transitions

- Majority of studies of school transitions have focused on move from elementary to middle school.
 - Despite declines, transition to high school remains relatively understudied.
- Almost all studies that examine “transition effects” do so in the absence of comparative data.

Limitations of Research on School Transitions

- "... few studies have provided comparative data on the effects of making such a transition at different age levels or within different schooling structures."
 - Blyth, Simmons, and Bush (1978)

Data

- AddHealth (National Longitudinal Study of Adolescent Health).
- Nationally representative school-based study of adolescents in grades 7-12 in 1994.
 - Stratified sample of schools, with random sample of students in selected schools.

AddHealth

- Data for our analysis taken from In-Home Waves 1 and 2.
 - Incredibly in-depth study of numerous realms of adolescent life.
 - Nearly 15,000 adolescents interviewed in both waves.
- Restrict our analysis to cases in 8th grade at Wave 1, 9th grade at Wave 2.
 - 1,680 cases for analysis.

Strategy for Analysis

- Key comparison we want to make:
 - How do things change between eighth and ninth grade for those students who change schools, relative to students who move from eighth to ninth grade within the same school.
 - Are things worse in ninth grade for students who change schools than they are for those who do not?
- Exploit AddHealth's size, as well as diversity of schooling forms in U.S.

Types of Eighth Grade Schools Attended by Students in AddHealth

6-8

8-12

K-8

K-12

7-12

7-8

6-12

7-9

6-9

5-8

Types of Eighth Grade Schools Attended by Students in AddHealth

6-8

8-12

K-8

K-12

7-12

7-8

6-12

7-9

6-9

5-8

Outcomes Examined

- Four non-academic outcomes:
 - Physical fights
 - Use of drugs, alcohol, tobacco
 - Delinquency
 - Carrying weapon to school
- Four school-related outcomes:
 - Average grades
 - School attachment
 - Trouble in school
 - College aspirations

Methods

- Examining outcomes, comparing students who changed schools between 8th and 9th grade with those who did not change schools.
- Other controls:
 - Race (dummy for white)
 - Gender
 - Poverty status
 - Previous grade retention
 - IQ
 - Social connectedness
 - Dummy for isolation

Methods

- Examining outcomes, comparing students who changed schools between 8th and 9th grade with those who did not change schools.
- Bivariate comparison
- Multilevel models
 - Schools as level 2, no level 2 predictors
- Multilevel models with interactions by transition status
- Multilevel models with level 2 predictors

Research Question

- Do ninth grade outcomes vary by whether a student changed schools between eighth and ninth grade?

Bivariate Relationship: School Form and Student Outcomes

	Middle School		Other Forms	
	8 th	9 th	8 th	9 th
<i>Non-Academic Outcomes</i>				
<i>Fighting</i>	37.1% *	22.4%	28.7% *	18.5%
Alcohol, Tobacco or Drug Use	41.9% *	52.6%	33.8% *	47.9%
Delinquency	38.9%	35.1%	34.9%	29.5%
Weapon to School	6.2%	8.3% *	4.6%	4.7% *
Academic Outcomes				
GPA	2.88	2.76	2.90	2.80
School Integration	2.86	2.82	2.84	2.75
Trouble	1.01	.98	1.07	1.09
College Aspirations	4.57	4.47	4.57	4.42

* p<=.05, ** p<=.01, *** p<=.001

Research Question

- Do ninth grade outcomes vary by whether a student changed schools between eighth and ninth grade?
 - No, based on bivariate comparisons

Multilevel Models

Non-Academic Outcomes

	Fight	Alc, Tob, Drug Use	Delinq.	Weapon to School
Effect of Changing Schools	NS	NS	NS	Pos. $p < .05$

Controlling for age, race, gender, family poverty status, and maternal education

Multilevel Models

School-Related Outcomes

	GPA	School Integrat.	Trouble	College Aspirations
Effect of Changing Schools	NS	NS	NS	NS

Controlling for age, race, gender, family poverty status, and maternal education

Research Question

- Do ninth grade outcomes vary by whether a student changed schools between eighth and ninth grade?
 - No, based on bivariate comparisons
 - No, based on multilevel models

Multilevel Models with Interactions

- Very few significant interactions.
 - Things change between eighth and ninth grade.
 - However, in few cases do they change more for students who change schools.
- Where differences do appear, they show benefit to changing schools.
 - Contrary to expectation and previous research.
- Benefits cluster around social world of peers and previous grade retention.

Multilevel Models with Interactions

- Benefits cluster around social world of peers and previous grade retention.
 - Popular students who change schools have better grades in 9th grade.
 - Isolated students who make a transition are significantly more connected to school in 9th grade.
 - Previously retained students who change schools have much higher levels of integration in 9th grade.
- Taken together, these suggest that school transition can serve as a fresh start for some adolescents.

Research Question

- Do ninth grade outcomes vary by whether a student changed schools between eighth and ninth grade?
 - No, based on bivariate comparisons.
 - No, based on multilevel models.
 - No, based no examination of effects of school characteristics.
- However, some benefits seen to transition.

Conclusions

- Student outcomes change between eighth and ninth grade.
- However, the magnitude of change does not vary much by presence of change of schools.
 - Change in outcomes equivalent for adolescents who change schools and those who do not.
- Suggest the need for reexamining consequences of school transitions.

Conclusions

- Where transition effects appear, they are where least expected - and in opposite direction.
- Benefits for some students of a fresh start.
- Methodological note - Point to the need to exploit natural variation in schooling.