

# Exploring the *School-to-Prison Pipeline*: How School Suspensions Influence Incarceration during Young Adulthood

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# Introduction

- Suspensions are the most common type of punitive punishment in U.S. schools<sup>1</sup>
  - ~2.7 million students experienced a suspension in 2015-2016 school year<sup>2</sup>
  - 1/3<sup>rd</sup> of students receive a suspension by the time they graduate high school<sup>3</sup>
- Trends in school suspension experiences have increased in recent decades<sup>2</sup>
  - surveillance systems, drug-sniffing dogs, metal detectors and school resource officers<sup>5, 6, 7, 8</sup>

# Introduction

- Exclusionary practices tied to negative outcomes<sup>4</sup>
- Combination of punishment practices and their negative outcomes result in the “school-to-prison pipeline” (STPP)<sup>9, 10</sup>
  - Youth who are punished find themselves in contact with the criminal justice system<sup>10, 11</sup>

# School to Prison Pipeline Gaining National Attention

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## the School-to-Prison Pipeline From the Stage

NEWS AND POLITICS

### How the School-to-Prison Pipeline Works

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## SCHOOL-TO-PRISON PIPELINE



EDUCATION

### Stopping pipeline

The Atlantic

EDUCATION

## How the Justice System Pushes Kids Out of Classrooms and Into Prisons

The playwright and professor Anna Deavere Smith explored the link between schools and incarceration in her one-woman show *Notes From the Field*.

ALIA WONG DEC 28, 2016

A Columns, Opinion

## Williams Meets Kids America's Prison

### Pipeline

# School Discipline as a Turning Point

- Based on the STPP, school punishments can be labeled a negative *turning point* in the life course
  - i.e. events which mark “changes the life history that separate the past from the present”<sup>12</sup>
- Negative turning points can increasingly build on one another as they hinder future outcomes<sup>13</sup>
  - i.e. experiencing more negative turning points results *cumulative disadvantage*

# Current Study



- Little known on the long-term influence of punishments on the life course
- The current study explores the impact of sanctions on the trajectories of men and women as they transition to adulthood

# Research Questions

1. Does the share of men and women who experienced incarceration during young adulthood differ for those who were and were not suspended in middle/high school?
2. Is suspension during middle/high school associated with the odds of incarceration in young adulthood?
3. Is the number of grades during which a suspension was experienced associated with greater odds of incarceration for young adults who experienced at least one suspension?

# Data



- National Longitudinal Survey of Youth 1997 (NLSY97)
  - Sponsored by Bureau of Labor Statistics
- 8,984 nationally representative respondents
  - Age 12-16 in 1997 (born 1980-1984)
  - Oversample of Black and Hispanic youth
- 15 Waves (1997-2011)



# Variables

- Independent Variables
  - Ever experienced a suspension in grades 7-12
  - Number of grades a suspension was experienced in grades 7-12
- Dependent Variable
  - Incarcerated during the month of interview
- Controls Variables
  - Array of Demographic, Criminal & Delinquent, Socioeconomic, Contextual Measures

# Analytic Strategy



- Data converted into 47,840 person-year intervals from 7,623 respondents
- Restricted to ages 18-26
- Mixed Effects Logistic Regression Models used to test the association between suspension and incarceration during young adulthood

# Descriptive Statistics

Table 1. Descriptive Statistics for Variables Used in Multivariate Analyses

TI/TV Variable	Mean	TI/TV Variable	Mean
<b><i>Dependent Variable</i></b>		<b><i>Criminal &amp; Delinquent Controls</i></b>	
TV Incarcerated	0.015	TV Crime	7.190
<b><i>Independent Variables</i></b>		TI Teen Gang Participation	0.088
TI Ever Suspended	0.345	TI Most Peers Belong in Gang	1.580
TI Number of Grades Suspended (given suspended during at least one grade)	1.527	TI Delinquent Peers	2.347

Note: TI = time-invariant; TV = time-variant

# Descriptive Statistics (continued)

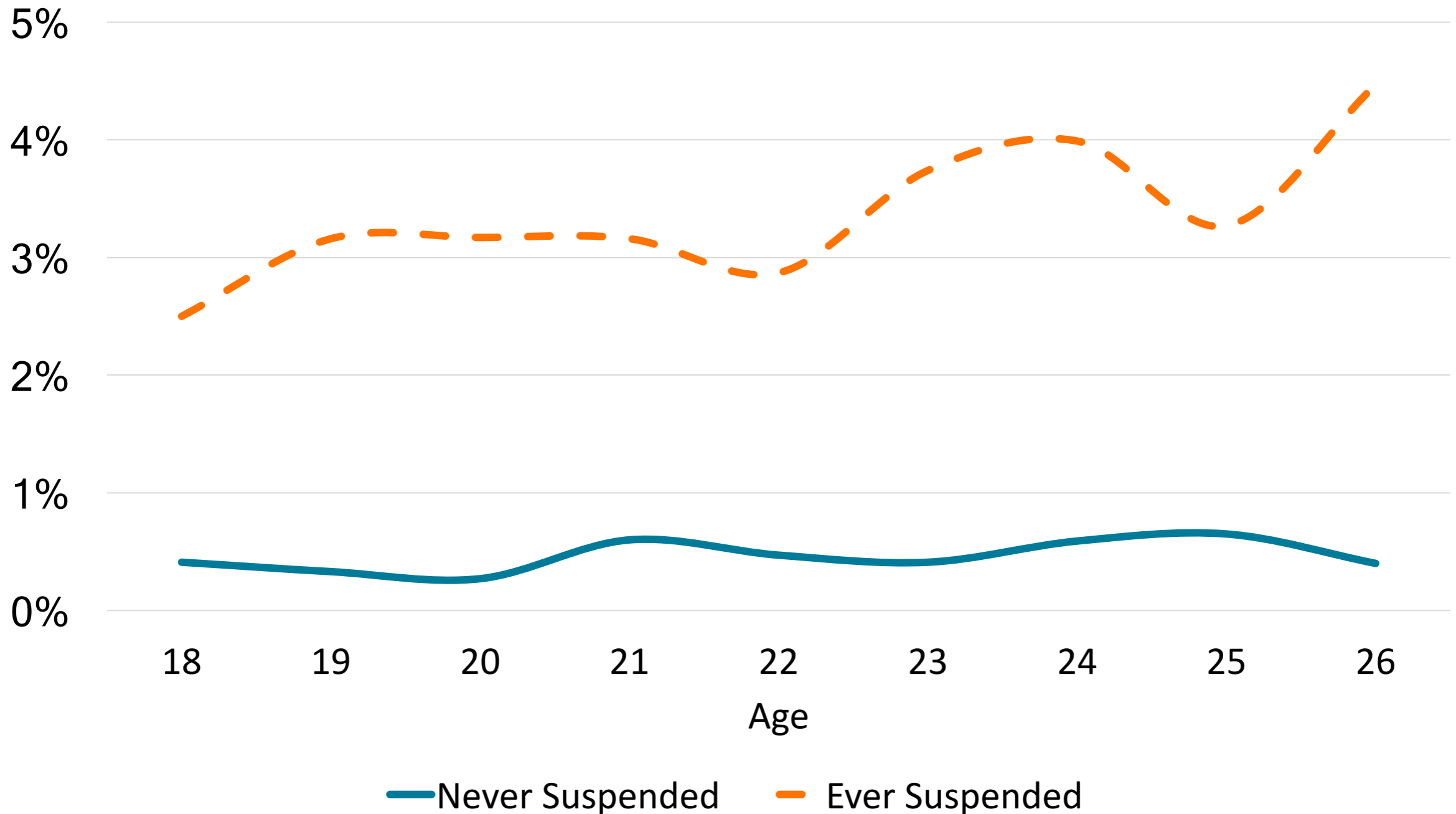
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<b><i>Demographic Controls</i></b>		<b><i>Socioeconomic Controls</i></b>			
TI	Age (in years) at Round 1	14.80	TV	<i>Education</i>	
TI	Male	0.498		Less than High School	0.220
TI	<i>Race/Ethnicity</i>			High School or Equivalent	0.328
	Non-Hispanic White	0.543		Some College	0.306
	Non-Hispanic Black	0.254		Bachelor's Degree or More	0.145
	Hispanic	0.203	TV	Income (in 1997 dollars)	\$46,696.9
TV	Married	0.160	TI	<i>Mother's Education</i>	
TV	Number of Biological Children	0.441		Less than High School	0.230
<b><i>Contextual Controls</i></b>				High School or Equivalent	0.358
TV	Living in the South	0.398		Some College	0.235
TI	Family Routines	15.002		Bachelor's Degree or More	0.178
TI	School Bonds	15.113			

Note: TI = time-invariant; TV = time-variant

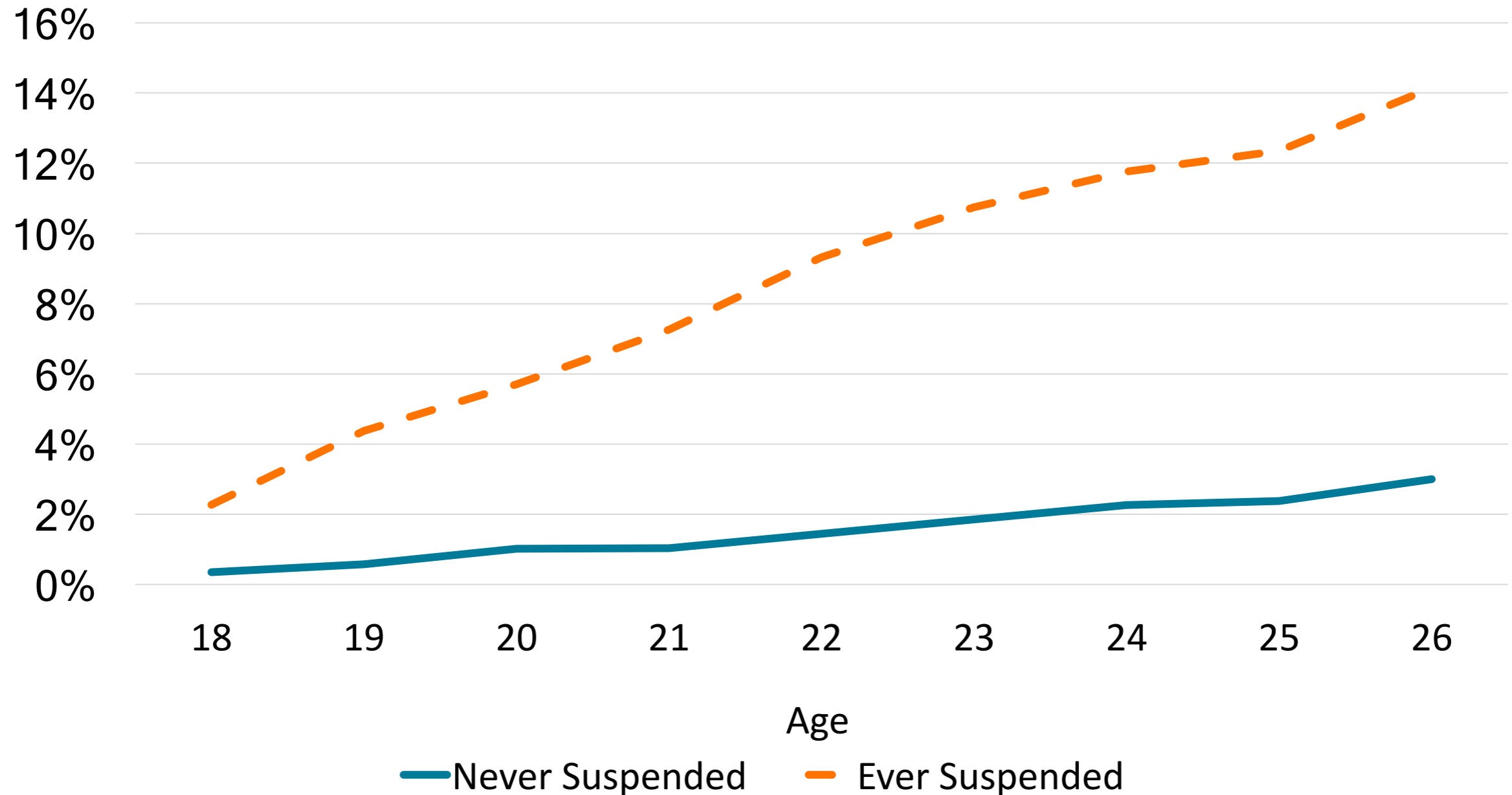
# RQ #1. Is Incarceration Different by Suspension Experience?

Figure 1. Percent of Incarcerated Young Adults, by Suspension Status and Age



# RQ #1. Is Incarceration Different by Suspension Experience?

Figure 2. Cumulative Percent of Ever Incarcerated Young Adults, by Suspension Status and Age



# RQ #2. Is Suspension Associated with Incarceration?

Table 2. Mixed Effects Regression Models Predicting the Odds of Incarceration (n = 7,623)

	Model 1		
	$\beta$	SE	OR
Ever Suspended	2.28	0.18***	9.78
<b>Demographic Controls</b>			
Age (in years) at Round 1	0.00	1.15	0.21
Age (in years) at Round 1 Squared	0.05	0.04	1.06
Male	2.41	0.21***	11.15
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>			
Non-Hispanic Black	0.63	0.18***	1.88
Hispanic	0.28	0.21	1.32
Married	-1.33	0.25***	0.26
Number of Biological Children	0.40	0.07***	1.49

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Note: Model 1 includes demographic controls

# RQ #2. Is Suspension Associated with Incarceration?

Table 2. Mixed Effects Regression Models Predicting the Odds of Incarceration (n = 7,623)

	Model 1			Model 2		
	$\beta$	SE	OR	$\beta$	SE	OR
Ever Suspended	2.28	0.18***	9.78	1.97	0.18***	7.17
<b>Demographic Controls</b>						
Age (in years) at Round 1	0.00	1.15	0.21	-1.92	1.15	0.15
Age (in years) at Round 1 Squared	0.05	0.04	1.06	0.06	0.04	1.07
Male	2.41	0.21***	11.15	2.30	0.21***	10.00
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>						
Non-Hispanic Black	0.63	0.18***	1.88	0.61	0.18***	1.83
Hispanic	0.28	0.21	1.32	0.27	0.21	1.31
Married	-1.33	0.25***	0.26	-1.28	0.25***	0.28
Number of Biological Children	0.40	0.07***	1.49	0.38	0.07***	1.46

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Note: Model 1 includes demographic controls

Model 2 includes demographic and criminal/delinquent controls



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	Model 1			Model 2			Model 3		
	$\beta$	SE	OR	$\beta$	SE	OR	$\beta$	SE	OR
Ever Suspended	2.28	0.18***	9.78	1.97	0.18***	7.17	1.35	0.17***	3.87
<b>Demographic Controls</b>									
Age (in years) at Round 1	0.00	1.15	0.21	-1.92	1.15	0.15	-1.72	1.08	0.18
Age (in years) at Round 1 Squared	0.05	0.04	1.06	0.06	0.04	1.07	0.06	0.04	1.06
Male	2.41	0.21***	11.15	2.30	0.21***	10.00	2.11	0.19***	8.21
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>									
Non-Hispanic Black	0.63	0.18***	1.88	0.61	0.18***	1.83	0.42	0.18*	1.52
Hispanic	0.28	0.21	1.32	0.27	0.21	1.31	0.10	0.21	1.10
Married	-1.33	0.25***	0.26	-1.28	0.25***	0.28	-1.17	0.24***	0.31
Number of Biological Children	0.40	0.07***	1.49	0.38	0.07***	1.46	0.25	0.07***	1.29

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<i>Race/Ethnicity (ref. = non-Hispanic White)</i>									
Non-Hispanic Black	0.63	0.18***	1.88	0.61	0.18***	1.83	0.42	0.18*	1.52
Hispanic	0.28	0.21	1.32	0.27	0.21	1.31	0.10	0.21	1.10
Married	-1.33	0.25***	0.26	-1.28	0.25***	0.28	-1.17	0.24***	0.31
Number of Biological Children	0.40	0.07***	1.49	0.38	0.07***	1.46	0.25	0.07***	1.29

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# RQ #3. Is the Number of Grades Suspended Associated with Incarceration?

Table 3. Mixed Effects Regression Models Predicting the Odds of Incarceration (n = 2,710)

	Model 1		
	$\beta$	SE	OR
Number of Grades Suspended	0.29	0.11**	1.34
<b>Demographic Controls</b>			
Age (in years) at Round 1	-2.10	1.37	0.12
Age (in years) at Round 1 Squared	0.08	0.05	1.08
Male	2.66	0.26***	14.29
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>			
Non-Hispanic Black	0.49	0.21*	1.63
Hispanic	0.17	0.26	1.18
Married	-1.14	0.28***	0.32
Number of Biological Children	0.31	0.08***	1.37

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Note: Model 1 includes demographic controls

Table 3 analyses restricted to those who experienced at least one suspension during grades 7-12

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	Model 1			Model 2		
	$\beta$	SE	OR	$\beta$	SE	OR
Number of Grades Suspended	0.29	0.11**	1.34	0.23	0.11*	1.26
<b>Demographic Controls</b>						
Age (in years) at Round 1	-2.10	1.37	0.12	-2.53	1.37	0.08
Age (in years) at Round 1 Squared	0.08	0.05	1.08	0.09	0.05	1.09
Male	2.66	0.26***	14.29	2.59	0.26***	13.29
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>						
Non-Hispanic Black	0.49	0.21*	1.63	0.47	0.21*	1.60
Hispanic	0.17	0.26	1.18	0.16	0.26	1.17
Married	-1.14	0.28***	0.32	-1.09	0.28***	0.34
Number of Biological Children	0.31	0.08***	1.37	0.29	0.08***	1.34

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Male	2.66	0.26***	14.29	2.59	0.26***	13.29	2.41	0.26***	11.10
<i>Race/Ethnicity (ref. = non-Hispanic White)</i>									
Non-Hispanic Black	0.49	0.21*	1.63	0.47	0.21*	1.60	0.37	0.21	1.45
Hispanic	0.17	0.26	1.18	0.16	0.26	1.17	0.11	0.25	1.12
Married	-1.14	0.28***	0.32	-1.09	0.28***	0.34	-1.01	0.28***	0.37
Number of Biological Children	0.31	0.08***	1.37	0.29	0.08***	1.34	0.23	0.08*	1.25

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

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# Discussion

- On average, ever suspended young adults experience incarceration more often than their never suspended peers
- Results support notion that suspension can serve as negative turning point
  - i.e. support for the “school to prison pipeline”
- No support of *cumulative disadvantage* experienced for those suspended in more than one grade
  - Odds of incarceration increase after first suspension, but subsequent suspensions are not associated with additional increase

# Future Steps



- Examine more contemporary cohorts
  - Analyses are limited to one cohort (born 1980-1984)
- Extend current study to older ages
  - Only young adulthood (18-26) is examined
- Test the specific mechanisms by which suspensions are positively associated with incarceration



# Conclusions



- Current study documents negative effects associated with school discipline
- Discipline can lead to negative long-term outcomes, extending into adulthood
- Findings bolster recent calls for disciplinary reform and alternative strategies

# Thank you!



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# Descriptive Statistics

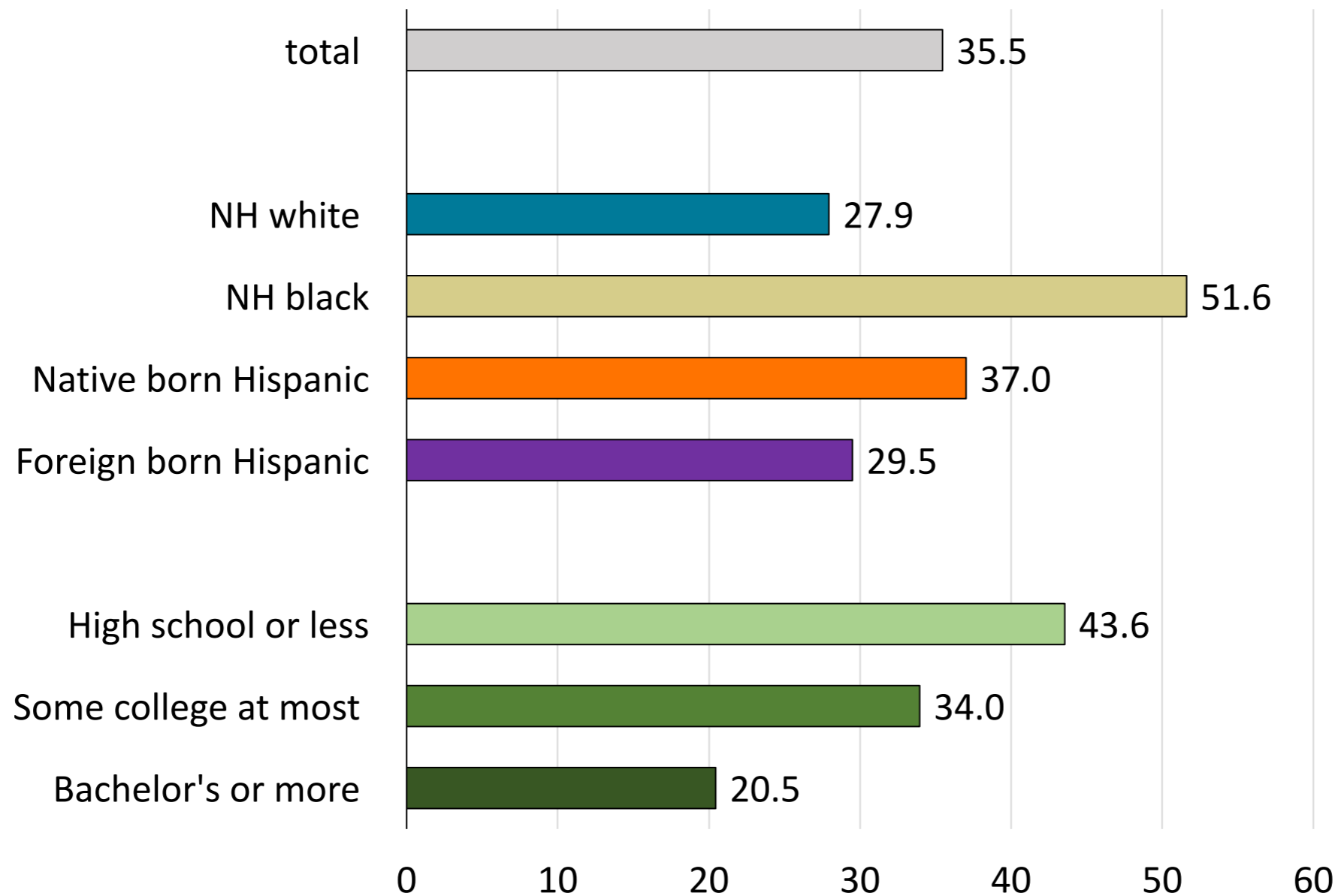
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TI	Family Routines	15.002			
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Note: TI = time-invariant; TV = time-variant

# Suspension Experience by Advantage

Percent of Respondents who Experienced a Suspension in Grades 7-12,  
by Race/Ethnicity and Parent's Education



Source: NLSY-97, rounds 1-15

# Multivariate Results Predicting Arrest

Table 1. Mixed Effects Logistic Regression Predicting the Odds of Arrest in the Past Year

	Model 1	Model 2	Model 3
Ever Suspended in Grades 7-12	2.32 ***	2.47 ***	2.32 ***
<i>Race/Ethnicity Interactions</i>			
NH Black * Suspended		0.90	
Native Born Hispanic * Suspended		0.92	
Foreign Born Hispanic * Suspended		0.52	
<i>Parent's Education Interactions</i>			
Some College at Most * Suspended			1.03
Bachelor's or More * Suspended			0.98
Constant	0.00 **	0.00 **	0.00 **

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

N = 47,097 person-year intervals

Source: NLSY-97, rounds 1-15

Note: Models control for age; age squared; gender; educational attainment; income (1997 dollars); marital status; parenthood status; crime index; region of residence

# Multivariate Results Predicting Incarceration

Table 2. Mixed Effects Logistic Regression Predicting the Odds of Incarceration in the Past Year

	Model 1	Model 2	Model 3
Ever Suspended in Grades 7-12	4.26 ***	4.61 ***	3.77 ***
<i>Race/Ethnicity Interactions</i>			
NH Black * Suspended		0.74	
Native Born Hispanic * Suspended		0.98	
Foreign Born Hispanic * Suspended		1.95	
<i>Parent's Education Interactions</i>			
Some College at Most * Suspended			0.96
Bachelor's or More * Suspended			2.19 †
Constant	0.00 **	0.00 **	0.00 **

†p < 0.1; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

N = 47,097 person-year intervals

Source: NLSY-97, rounds 1-15

Note: Models control for age; age squared; gender; educational attainment; income (1997 dollars); marital status; parenthood status; crime index; region of residence