

School Discipline and Racial Disparities in Early Adulthood

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Despite interest in the contributions of school discipline to the creation of racial inequality, previous research has been unable to identify how students who receive suspensions in school differ from unsuspended classmates on key young adult outcomes. We utilize novel data to document the links between high school discipline and important young adult outcomes related to criminal justice contact, social safety net program participation, postsecondary education, and the labor market. We show that the link between school discipline and young adult outcomes tends to be stronger for Black students than for White students, and that approximately 30% of the Black–White disparities in young adult criminal justice outcomes, SNAP (Supplemental Nutrition Assistance Program) receipt, and college completion can be traced back to inequalities in exposure to school discipline.

Keywords: disparities; race; social stratification

Substantial research highlights that Black students are more likely to be suspended and expelled than their White classmates (see, e.g., U.S. Department of Education Office for Civil Rights, 2016), and scholars argue that these disparities in educational experiences exacerbate disparities in adult criminal justice contact (Wald & Losen, 2003). The reliance on exclusionary discipline, policing, and harsh security measures creates school environments that criminalize youth of color (Kupchik & Ward, 2014; Rios, 2011), as the school-to-prison nexus brings carceral logics from the criminal justice system into schools and normalizes the control and monitoring of people of color (Becker et al., 2017; Sojoyner, 2013). Although existing research underscores how school discipline contributes to racial inequities in shorter term educational outcomes by constructing criminalized identities (e.g., Rios, 2011), the degree to which such experiences shape later-life disadvantage and contribute to long-term disparities is not well established.

We utilize novel administrative data combining statewide education, criminal justice, and social safety net program participation data from Oregon with income information from the Internal Revenue Service to elucidate the link between school discipline and key young adult outcomes. Specifically, we (1) describe the relationship between school discipline and young adult criminal justice contact, enrollment in postsecondary

education and graduation from college, social safety net program utilization, and outcomes related to the labor market and poverty; (2) examine whether the links between school discipline and these outcomes are particularly strong for Black and Hispanic students; and (3) estimate the degree to which racial disparities in young adult criminal justice outcomes may be accounted for by differences in experiencing exclusionary school discipline.

In doing so, we provide high-quality descriptive evidence documenting the important link between school discipline and young adult outcomes. This has been a surprisingly difficult task, as research typically relies on student self-reports (Rosenbaum, 2020), and high-quality administrative data recording student discipline rarely contain information about students' later life outcomes. Recent working papers utilizing high-quality school discipline administrative records document how principals (Bacher-Hicks et al., 2019; Sorensen et al., 2020), teachers (Rose et al., 2019), and police officers in schools (Sorensen et al., 2021) can shape students' adult contact with the

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Table 1
Differences in Early Adult Outcomes by Exposure to School Discipline

	Criminal Justice			Safety Net	Higher Education	Labor Market			
	Charged	Convicted	Incarcerated	SNAP	Enrolled	4-Year Degree	Employed	Earnings	Poverty
Panel A: Early adult outcomes by school discipline									
Disciplined	.146	.110	.013	.590	.614	.134	.835	\$19,240	.240
Not disciplined	.057	.039	.005	.475	.683	.168	.851	\$20,790	.187
Discipline penalty	.089 ^a	.070 ^a	.007 ^a	.115 ^a	-.069 ^a	-.034 ^a	-.016 ^a	-\$1,551 ^a	.053 ^a
Panel B: Men's discipline penalties by race									
White	.098 ^a	.081 ^a	.010 ^a	.136 ^a	-.080 ^a	-.050 ^a	-.024 ^a	-\$1,544 ^a	.042 ^a
Black	.169 ^{ab}	.130 ^a	.013	.070 ^{ab}	.008	.023	-.047	-\$3,329 ^a	.108 ^a
Hispanic	.127 ^{ab}	.103 ^a	.014 ^a	.088 ^{ab}	-.092 ^a	-.002	-.007	\$365	.042 ^a
AIAN	.121 ^a	.094 ^a	.004	.090 ^a	-.062	.007	.016	-\$4,085	.089
API	.044 ^{ab}	.046 ^a	.006	.043 ^b	-.098 ^a	-.094 ^a	.023	\$2,229 ^b	.020
Panel C: Women's discipline penalties by race									
White	.060 ^a	.043 ^a	.001	.133 ^a	-.070 ^a	-.050 ^a	-.016	-\$2,985 ^a	.075 ^a
Black	.157 ^{ab}	.107 ^{ab}	.000	.048 ^b	.033 ^b	-.007 ^b	-.046	-\$6,133 ^{ab}	.188 ^{ab}
Hispanic	.029 ^{ab}	.028 ^a	.002	.063 ^{ab}	-.054 ^a	.001 ^b	.011	\$1,257 ^b	.059 ^a
AIAN	.119 ^a	.016	-.001	.030 ^b	.001	.047 ^b	.028	-\$3,784	-.062 ^b
API	.055	.044	-.001	.037	-.147 ^a	-.131 ^{ab}	.022	\$2,945 ^b	-.014

Note. The table includes results from different ordinary least squares regression models. The columns represent different young adult outcomes for Oregon high school students in the cohort that began high school in the 2007–2008 school year. Panel A reports the predicted probabilities for students who were exposed to school discipline (row one), students who were not exposed to school discipline (row two), and the difference between students who were and were not disciplined, which we refer to as the discipline penalty (row three). The predicted probabilities are obtained using the sample mean of the nonschool discipline covariates. Panel B reports the discipline penalty for different race/ethnicity groups for men (i.e., the difference between students of a particular group who were and were not disciplined, which is obtained by taking the sum of the coefficient for the main effect of discipline exposure and the relevant coefficient for the interaction between indicators for race/ethnicity and an indicator for school discipline). Panel C reports the same results as in Panel B but for women instead of men. The criminal justice contact variables indicate any adult charge, conviction, or incarceration between the end of their senior year and age 22. The higher education variables indicate whether students ever enrolled in higher education and ever received a 4-year college degree as of 2016 (5 years post–high school). Social safety net outcomes provide information regarding whether the student lived in a household that received SNAP between 2012 and 2018. We use the presence of a Form W2 to indicate employment (measured in 2018), and sum earnings from employment across all W2s the individual received in 2018. Results for earnings were estimated on the inverse hyperbolic sine of earnings; we transform results back into dollars for reporting purposes. Our proxy for poverty status examines whether Internal Revenue Service (IRS)-reported household income for 2019 was below the federal poverty level. The above results are based on 40,000 students in the cohort that began high school in the 2007–2008 school year. All models include controls for average IRS-reported household adjusted gross income during high school, average standardized test scores, special education status, gifted status, economic disadvantage status, native language, absences, and midyear school changes; models reported in Panel A additionally include controls for race and gender. SNAP = Supplemental Nutrition Assistance Program; AIAN = American Indian and Alaska Native; API = Asian or Pacific Islander.

^aCoefficient is statistically significantly different from zero.

^bCoefficient is statistically significantly different from the analogous coefficient for White students in that panel (Panels B and C only).

criminal justice system. Our novel data allow us to provide the most comprehensive overview of the link between school discipline and young adult inequality and to condition on a detailed set of controls, such as family income, not typically observed in other administrative data.

Just over one quarter of all students (27%) in our analytical sample were suspended or expelled while in high school, and the percentage of students disciplined ranged from nearly half of Black and Hispanic boys to under 10% of Asian girls (see Supplemental Table S1, available on the journal website). Exclusionary discipline is viewed as particularly problematic when utilized as a response to insubordination offenses (Ritter & Anderson, 2018), and 5% of students in our cohort received an out-of-school suspension for insubordination while in high school.

Table 1 documents the strong link between experiencing school discipline and a variety of key early adult outcomes. We see in Panel A that, compared with nondisciplined students, high school students who were disciplined (which is defined as

being suspended or expelled), are over twice as likely to be charged with a crime (15% vs. 6%), convicted of a crime (11% vs. 4%), and incarcerated (1.3% vs. 0.5%) by age 22; are approximately 11 percentage points more likely to have received Supplemental Nutrition Assistance Program (SNAP) benefits by age 26 (59% vs. 48%), 7 percentage points less likely to pursue higher education (61% vs. 68%) and 3 percentage points less likely to graduate from college (13.4% vs. 16.8%) by age 23; were less likely to be employed (84% vs. 85%), earned approximately \$1,600 less at age 26, and were 5 percentage points more likely to have household incomes that were below the federal poverty line (19% vs. 24%) at age 27.

Panels B and C report the differences between disciplined and nondisciplined high school students by race and gender, allowing us to examine whether the link between school discipline and young adult outcomes is particularly salient for some groups of students. We find evidence that the link between school discipline and transition to adulthood outcomes varies

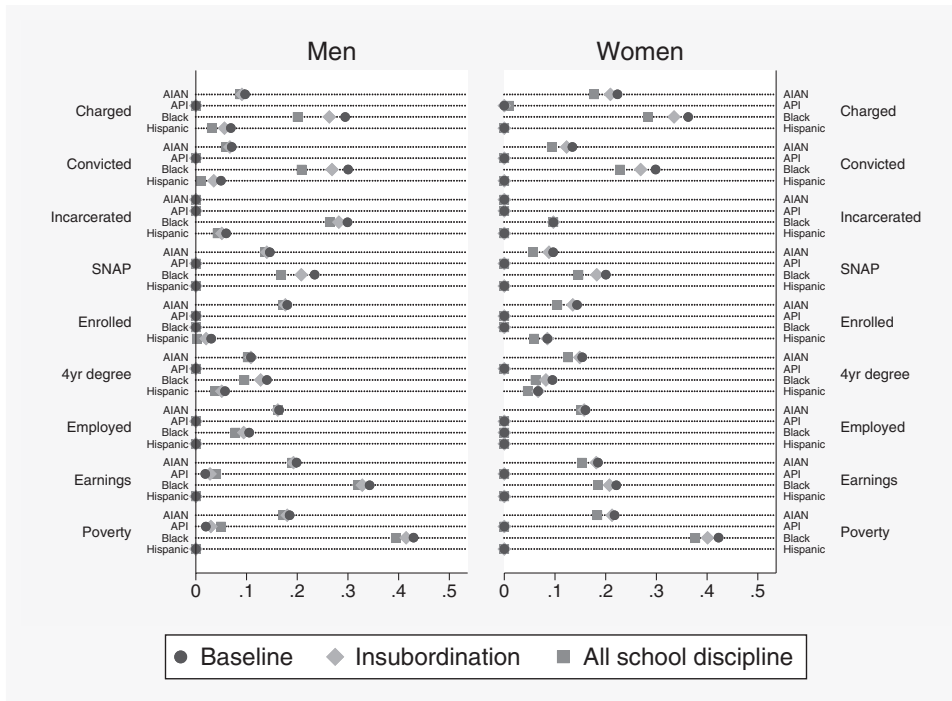


FIGURE 1. *Racial disparities in young adult outcomes (standardized), for men and women.*

Note. This figure presents information on racial differences in young adult outcomes (relative to White students), separately for women and men. Each row reports the coefficients on different race/ethnicity indicators for different outcomes; to facilitate interpretation on a common scale, we divide coefficient by the sex-specific standard deviation of the outcome variable. To enhance legibility, we report all outcomes with the same directionality (i.e., higher Black criminal justice contact and lower Black employment are both reported as being in the same direction), and as we are interested in understanding how the disadvantages experienced relative to White young adults may be traced to school discipline differences (and not whether, e.g., advantages in Asian students’ college degree attainment are attributable to school discipline), when a racial group does better on average on a particular outcome than White students, we place the markers for this contrast at zero on the *x*-axis. The “Baseline” model (represented by circles) includes only controls for average Internal Revenue Service (IRS)-reported household adjusted gross income during high school, native language, and school-reported economic disadvantage. The “Insubordination” models (represented by diamonds) add a control for out of school suspensions for insubordination. The “All school discipline” models (represented by squares) control for indicators of in-school suspension, out-of-school suspension, expulsion, offense type, and weapons involved. Coefficients from models are reported in Supplemental Tables S1 (men) and S2 (women) (available on the journal website); the above results are based on 40,000 students from the cohort entering high school in 2007–2008. Data link records from the Oregon Department of Education, Oregon court and Department of Correction records, Oregon Supplemental Nutrition Assistance Program (SNAP), and IRS Forms 1040 and W2.

significantly by race and gender. Of particular note, we find that the link between school discipline and criminal justice contact is strongest for Black students.

Figure 1 examines the degree to which racial disparities in young adult outcomes can be linked to differences in school discipline. We report racial disparities for men and women separately, first controlling only for background characteristics (e.g., native language, household income during high school; labeled “Baseline”), then holding constant only out-of-school suspensions for insubordination, and finally accounting for a broad array of school discipline measures. Comparing racial disparities with and without accounting for these factors provides an indication of the degree to which racial disparities in, for example, the probability of being charged with a crime as a young adult can be traced back to differences in school discipline (see Supplemental Tables S2 and S3, available on the journal website, for model coefficients). As we are interested in understanding how disadvantages relative to White

young adults may be traced back to school discipline differences (and not whether, for example, advantages in Asian students’ degree attainment is attributable to school discipline), when a racial group does better on average on a particular outcome than White students, we place the markers for this contrast at zero on the *x*-axis. To facilitate comparisons across our wide range of outcomes, Figure 1 divides the race gaps by the standard deviation of the relevant outcome.

Results presented in Figure 1 highlight that Black young adults experience the largest disparities. We find that approximately 30% of the gap between Black and White young adult criminal justice outcomes, SNAP participation, and BA receipt can be traced back to inequalities in school discipline, and that just accounting for out-of-school suspensions for insubordination reduces the Black–White disparity by approximately 10%. Although we find substantial inequality in young adult labor market outcomes, disparities in exposure to school discipline

appear to be less relevant for understanding racial differences in this domain. This suggests that other factors are likely to be particularly important for understanding racial inequality in the labor market, and that to the degree that school discipline contributes to labor market disparities, it does so because the discipline penalty for Black students reported in Table 1 is particularly severe.

Taken together, our results highlight the important link between exposure to school discipline and a healthy transition to adulthood, while also underscoring that simply addressing school discipline gaps without attending to broader structural considerations reinforcing racial inequality outside of schools is insufficient for ameliorating racial disparities in adulthood.

NOTES

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REFERENCES

- Bacher-Hicks, A., Billings, S., & Deming, D. (2019). *The school to prison pipeline: Long-run impacts of school suspensions on adult crime* (NBER Working Paper No. 26257). <https://doi.org/10.3386/w26257>
- Becker, J., Carr, B. L., Knapp, G. R., & Giraldo, L. G. (2017). At the nexus of education and incarceration: Four voices from the field. *Harvard Educational Review*, 87(2), 260–277. <https://doi.org/10.17763/1943-5045-87.2.260>
- Kupchik, A., & Ward, G. (2014). Race, poverty, and exclusionary school security: An empirical analysis of U.S. elementary, middle, and high schools. *Youth Violence and Juvenile Justice*, 12(4), 332–354. <https://doi.org/10.1177/1541204013503890>
- Rios, V. (2011). *Punished: Policing the lives of Black and Latino boys*. New York University Press.
- Ritter, G., & Anderson, K. P. (2018). Examining disparities in student discipline: Mapping inequities from infractions to consequences. *Peabody Journal of Education*, 93(2), 161–173. <https://doi.org/10.1080/0161956X.2018.1435038>
- Rose, E., Schellenberg, J., & Shem-Tov, Y. (2019). *The effects of teacher quality on criminal behavior* (Working paper). <https://sites.google.com/view/jonathanschellenberg/research>
- Rosenbaum, J. (2020). Educational and criminal justice outcomes 12 years after school suspension. *Youth & Society*, 52(4), 515–547. <https://doi.org/10.1177/0044118X17752208>
- Sojoyner, D. M. (2013). Black radicals make for bad citizens: Undoing the myth of the school to prison pipeline. *Berkeley Review of Education*, 4(2), 241–263. <https://doi.org/10.5070/B84110021>
- Sorensen, L. C., Bushway, S. D., & Gifford, E. J. (2020). *Getting tough? The effects of discretionary principal discipline on student*

outcomes (EdWorkingPaper: 20-216). <https://doi.org/10.26300/vz9t-hd28>

Sorensen, L. C., Shen, Y., & Bushway, S. D. (2021). Making schools safer and/or escalating disciplinary response: A study of police officers in North Carolina schools. *Educational Evaluation and Policy Analysis*, 43(3), 495–519. <https://doi.org/10.3102/01623737211006409>

U.S. Department of Education Office for Civil Rights. (2016). *2013-14 Civil rights data collection: A first look*. <https://www2.ed.gov/about/offices/list/ocr/docs/CRDC2013-14-first-look.pdf>

Wald, J. M., & Losen, D. J. (2003). Deconstructing the school-to-prison pipeline. *New Directions for Youth Development*, 2003(99), 9–15. <https://doi.org/10.1002/yd.51>

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