



MLDS CENTER

Maryland Longitudinal Data System

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MEMORANDUM

TO: MLDS Governing Board
FROM: Dr. Angela Henneberger, Research Branch Director
DATE: December 4, 2020
SUBJECT: External Research and Grant Funded Projects

Purpose

The purpose of this agenda item is to review External Researcher and Grant Funded applications received by the MLDS Center.

Summary of Applications

1. ***The Effects of State and Local PK-12 Discipline Policies on Suspensions, Juvenile Arrests, and Educational Outcomes***; Dr. Jane Lincove, Research Branch member, and faculty at University of Maryland, Baltimore County, School of Public Policy - This proposal examines the short- and long-term effects of school suspensions on educational attainment and human capital in Maryland and variations by race, gender, and poverty. Discipline policies will be examined to determine the impact of suspension across districts and the most effective policies for reducing suspensions rates and disproportionality in suspensions, as well as for mitigating the effects of suspensions on student learning and attainment. Funding source determination is still pending.
2. ***School Discipline and the Transition to Adulthood in Maryland***; Dr. Wade Jacobsen, Research Branch Member, and faculty at University of Maryland, College Park, Department of Criminology and Criminal Justice - This project will extend prior research by testing relationships between individual student characteristics (e.g., race; ethnicity), school discipline experienced in K-12, and emerging adult outcomes, including juvenile service involvement, postsecondary enrollment, and workforce participation. Funding will be sought from the University of Maryland and external federal and foundation funders.

Recommendation

Both of these proposals are recommended for approval. They have been reviewed internally and by the Research and Policy Advisory Board. The researchers are very qualified to conduct this research and the topics address relevant policy issues.

Update

In May 2019, the MLDS Center submitted a grant application to the National Science Foundation (NSF) Mid-Scale Research Infrastructure program (\$20 million over 5 years). The goal is to support infrastructure that helps to fill data gaps identified by the MLDS Center. The application was favorably reviewed, but was not selected for funding. The research team is working on revising the submission and the preliminary proposal will be submitted in January 2021. If invited for a full proposal, the proposal is

due in April 2021. The proposal will be substantially similar to the proposal approved by the MLDS Governing Board in the last round of submission.

Action

Board approval on the applications is requested.

Project Information Worksheet - ERA -47

Project Title
The effects of state and local PK-12 discipline policies on suspensions, juvenile arrests, and educational outcomes
Principal Investigator Jane Arnold Lincove, University of Maryland, Baltimore County
Co-PIs Chris Curran, University of Florida Angela Henneberger, University of Maryland, School of Social Work Andrew McEachin, RAND Jon Valant, Brookings Institution
Abstract or Brief Description
The proposed project will link student discipline data with attendance, juvenile arrests, educational outcomes, and post-secondary college and workforce outcomes to identify how school suspensions influence students' performance, attainment, and human capital. We will also examine the relationship between recent local and state policy changes regarding school discipline to identify strategies the role of policy in 1) influencing student and school behavior; 2) reducing racial, gender, and income disparities in the use of suspension and its negative consequences. We will identify local policy variation through coding of student handbooks, as well as through the MLDSC aggregate data.
Research Project Questions(s)
1. What are the short- and long-term effects of school suspensions on educational attainment and human capital in Maryland? 2. How do the effects of school suspensions vary by race, gender, and income? 3. Do the uses and effects of suspension vary across districts in Maryland relative to discipline policies or within districts relative to faculty and student characteristics or school programs? 4. What are the most effective policies for reducing suspensions rates and disproportionality in suspensions, as well as for mitigating the effects of suspensions on student learning and attainment?
Research Methodology
This study will combine quantitative policy analysis, regression analysis with panel data, and quasi-experimental methods. First, we will collect and code data on state and local discipline policies with the goals of 1) identifying substantial difference across districts and schools, and 2) identify substantial changes across time. Regression analysis with panel data will be used to generate descriptive evidence on the effects of suspensions at different ages on short- and long-term outcomes. Finally, we will combine data on policy differences and changes with longitudinal panel data to, where possible, identify causal impacts of discipline policies and practices. This will be

feasible where similar students can be observed either before and after a policy change, or similar settings but with notable differences in policy. In the ideal scenario, both comparisons will be possible allowing estimation of a difference-in-difference (i.e. a comparison of changes over time in settings with and without a policy change).

Applicability to MLDS Research Agenda

1. What is the impact of early childhood education experiences and programs on children's school readiness and K-12 outcomes?, 2. Are Maryland students academically prepared to enter postsecondary institutions and complete their programs in a timely manner?, 3. What percentage of Maryland high school exiters go on to enroll in Maryland postsecondary education?, 19. What are the workforce outcomes for Maryland students who earn a high school diploma (via high school graduation or GED®) but do not transition to postsecondary education or training?

Benefit to the State of Maryland

Both MSDE and Maryland school districts have enacted substantial policy changes in the last 10 years in an effort to improve schools safety while mitigating the negative effects of suspension on students, which are often disproportionately concentrated among students of color. This study will help Maryland teachers, administrators, and policymakers to better the impacts of these policy changes on students' long-term educational trajectory and to identify settings where discipline policies support student's post-secondary success. We hope to help to identify best practices in suspensions policy, the provision of educational services during suspensions, and the use of school resources officers.

Explanation of Cross-Sector Qualities

We plan to combine K-12 data with DJS juvenile justice data to see how suspensions and juvenile arrest interact to impact students. We will also use post-secondary outcomes from college and workforce data.

Proposed Center Output

MLDSC research report, presentation, and white papers for Maryland stakeholders.

Estimated Timeline for the Proposed Project

Since DJS data are still being brought into the MLDSC, we are proposing a 4-year timeline to complete this project with the following time-line:

Year 1: Clean K-12, post-secondary, and workforce data. Code local policies.

Year 2: Analyze the long-term outcomes of suspensions across a student's K-12 enrollment.

Year 3: Add DJS arrest data to analysis. Identify districts and schools where policy changes are associated with substantial changes in outcomes.

Year 4: Complete analysis and report results.

Plans for Further Development

Presentations at academic and practitioner conferences (SREE, AERA, AEF, APPAM, AEA)
Peer-reviewed academic articles.
Blog posts and working papers at our institutions.

Project Information Worksheet - ERA -# 45

Project Title
School Discipline and the Transition to Adulthood in Maryland
Abstract or Brief Description
<p>Millions of students in the United States are suspended or expelled from school each year, and the risks of suspension and expulsion are particularly high among racial minorities. This is problematic because a growing body of research documents negative consequences of suspension and expulsion for child and adolescent development. However, few studies examine the consequences of school discipline for emerging adulthood sectors, such as college enrollment and workforce participation. This project will extend prior research by testing whether these exclusionary forms of discipline also interfere with the transition to emerging adulthood. There is an urgent need to understand the consequences of school discipline in Maryland, particularly among racial minorities, because recent declines in suspension and expulsion rates in the state appear to have mainly benefited white students. This research will advance current knowledge by examining consequences of such discipline in young adulthood and the mechanisms of these consequences.</p>
Research Project Questions(s)
<p><i>Stage 1: Cumulative Risk of Suspension and Variation by Race/Ethnicity</i> In Maryland, what is a student's likelihood of having ever been suspended (including in-school and out-of-school) or expelled by each grade? How does this cumulative risk vary by race/ethnicity?</p> <p><i>Stage 2: Suspension and Juvenile System Involvement</i> What are the relationships among race/ethnicity, school discipline, and justice system involvement?</p> <p><i>Stage 3: Suspension and Postsecondary Enrollment and Employment:</i> What are the relationships among race/ethnicity, school discipline, and higher education enrollment? What are the relationships among race/ethnicity, school discipline, and participation in the Maryland workforce?</p>
Research Methodology
<p>To address these research questions, we rely on four cohorts, each of which is based on the student's grade of enrollment in the 2007-2008 school year: kindergarten (C0), first grade (C1), second grade (C2), and third grade (C3). Our analyses will proceed in three stages.</p> <p>Stage 1: In the first stage, we will conduct descriptive analyses showing cumulative rates of in-school suspension, out-of-school suspension, and expulsion by race. For this, we use C0 and C1 because these are the only cohorts with data collected at all grades (kindergarten through twelfth). These cumulative rates represent the proportion of students in C0 and C1 who ever experienced a given type of school discipline by a given grade. Prior research has relied almost entirely on annual estimates of each type of discipline to measure its prevalence. Such annual rates are useful but not informative about how a student's risk of suspension and expulsion accumulates from grade to grade. Nor do they help to understand the frequency at which students experience each form of discipline or</p>

how much class time is lost as a result. Based on the disproportionality that has been highlighted in prior research, we expect suspensions and expulsions to accumulate faster for black relative to white or Hispanic students, resulting in large disparities by the end of high school. In the US, an estimated two-thirds of black youth are suspended by the time they finish high school (Shollenberger 2014). To our knowledge, prior research has not estimated cumulative rates of suspension or expulsion in Maryland. In addition to estimating these cumulative rates of suspension and expulsion, we will examine the percentage of suspended and non-suspended students of each race who graduate from high school, become involved in the juvenile justice system, enroll in postsecondary education, and experience stable employment (consistently appear in the wage data) after high school.

Stage 2: In the second stage of our analyses, we will examine associations of race with school discipline and justice involvement. For this, we pool observations of all four cohorts. Our indicator of justice involvement will be a count of the number of formal referrals to the Department of Juvenile Services in each grade. Each year, these referrals may originate with police, school resource officers, citizens, probation officers, or adult courts (Maryland Department of Juvenile Services 2020). Our indicator of school discipline will be the number of (1) in-school suspensions, (2) out-of-school suspensions, and (3) expulsions received in each grade. To test the association between our indicators of school discipline and justice involvement, we will use statistical methods that are appropriate for count variables (Poisson or negative binomial regression) and that account for the hierarchical structure of the data (i.e., that students are clustered within schools, and schools within districts; for this we will use mixed-effects or multilevel models; Raudenbush and Bryk 2002). Using a multilevel approach, we will first examine the association between a student's race and their count of justice referrals. Based on disproportionality highlighted in prior research, we expect to find that Non-Hispanic Black students have higher counts of justice referrals than Non-Hispanic White or Hispanic students. Next, we assess whether suspension and expulsion helps to explain these disparities by adding indicators of school discipline to the model. In doing so, we examine the variation in justice referrals that are explained by differences in school discipline between and within students (individual student changes in suspension or expulsion status, grade to grade). If suspension or expulsion helps to explain racial disparities in justice referrals, we should see that the statistical coefficients for race decline toward zero when accounting for school discipline. A combination of theoretical justification and a model building approach will be used to determine the appropriate control variables to include in the model. We expect to include demographic characteristics, such as gender, eligibility for free/reduced meals, special education status, etc.

In performing these analyses, we need to be able to control for differences in behavior problems between students who have received a suspension or expulsion and those who have not. We also need to account for variation in other characteristics which we cannot observe in these data. We address this concern in three ways. First, the modeling strategy we have described allows us to distinguish the within-person association between school discipline and justice referrals from the between-person association. By focusing on within-person change (comparing years when a student was not suspended to years when they were suspended), we are able to control for any potential confounding characteristics that do not change over time, such as individual traits that are associated with behavior problems, whether observed (e.g., race/ethnicity; poverty) and unobserved (e.g., neurological risk factors prior to K-12). Second, although information for most behavior problems which could result in a suspension or expulsion is not collected for students who were not suspended or expelled, information on truancy (which may result in in-school suspension) is collected for all students. Therefore, as a sensitivity check, we limit the analytic observations to students who were ever truant and students who received an in-school suspension for truancy (removing observations of

students who were ever suspended for something else). In doing so, we can hold truancy (including number of days missed) constant, allowing us to compare students who were suspended for truancy to students who had similar levels of truancy but were not suspended. In doing so, we would also need to control for other factors associated with whether or not a student receives an in-school suspension (e.g., school resources, staff). Third, among students who were suspended for a similar, common misbehavior (e.g., insubordination), we compare the number of justice referrals after in-school suspension to the number of referrals after out-of-school suspension. Justice referrals are expected to be more likely following an out-of-school suspension than they are after in-school suspension for the same behavior problem.

Stage 3: In the third stage of our analyses, we will examine the role of school discipline in assessing racial differences in (1) higher education and (2) stable employment within the first two years after high school. For this, we will pool C2 and C3 because, of the four cohorts, these are the only two old enough to have been observed for two years after their expected year of high school completion. Higher education enrollment will be a binary measure indicating whether the students enrolled in a college or university (two-year or four-year) during these two years. Stable employment will be a binary indicator of whether or not the students received consistent wages from Maryland employers who are included in the unemployment insurance (UI) wage data, defined as receiving wages in at least six of eight quarters. A third outcome variable will measure the wages earned in the most recent quarter in which an individual appears in the UI wage data. To examine the statistical association of school discipline with these three outcomes, we will focus on suspensions that occur in high school only. In this way, we will be able to approximate a treatment-control condition by matching suspended and non-suspended students on their likelihood of experiencing suspension. This likelihood of experiencing suspension is represented by a propensity score calculated by taking into account many observable characteristics in MLDS, including suspensions that occurred prior to high school. In this way, we reduce the potential for biased estimates in examining the association between suspension and these later outcomes.

The limitations of this study should be reiterated. First, although we can measure many responses to student behavior (suspension, expulsion, justice contact), we cannot completely control for student's actual behaviors. Second, the regression models used in Stages 2 and 3 will control for observed variables, but we will not be able to determine the degree to which unobserved variables contribute to our estimates of relationships. Third, the Maryland workforce data are limited to records from Unemployment insurance, which excludes federal employees, contractors, and self-employed individuals.

Applicability to MLDS Research Agenda

- RQ2. Are Maryland students academically prepared to enter postsecondary institutions and complete their programs in a timely manner?
- RQ3. What percentage of Maryland high school exiters go on to enroll in Maryland postsecondary education?
- RQ19. What are the workforce outcomes for Maryland students who earn a high school diploma (via high school graduation or GED®) but do not transition to postsecondary education or training?
- RQ21. What are the workforce outcomes of Maryland high school non-completers?

Benefit to the State of Maryland

There is an urgent need to understand the consequences of school discipline among racial minority students in Maryland. Suspension rates in the state have declined in recent years, but these declines have primarily benefited white students (occurred more rapidly among white students), causing disproportionalities to increase (O’Conner et al. 2014). We anticipate that the findings from this project will benefit the State of Maryland by advancing an understanding of the long-term consequences of suspension for students who experience it and by informing ongoing reform efforts in the state aimed at reducing racial inequality in justice involvement and emerging adult sectors, such as postsecondary education and the workforce. In particular, the information produced by these analyses will help to inform policy and practice decisions in Maryland that are meant to reduce racial disproportionality and promote a positive transition to adulthood. For example, a better understanding of how suspension is linked with early adulthood outcomes can help to identify leverage points for reducing disproportionalities through policy and practice.

Explanation of Cross-Sector Qualities

The project is cross-sector because it will involve examining the impacts of suspension in elementary, middle, and high school (K-12 data from MSDE) on justice involvement, employment, and post-secondary enrollment.

Proposed Center Output

Presentation of findings at MLDS Research Series in summer of 2021.
 MLDS Research Report to be completed in the fall of 2021.
 Stakeholder meetings with representatives from MSDE and DJS throughout the course of the project. The goal of these meetings will be to conduct research in an iterative process, whereby research is informed by policy and practice and practice/policy are informed by research findings from the current study.

Estimated Timeline for the Proposed Project

Since January of 2020, we have worked with MLDS staff to be granted access to MLDS data through the required series of security checks, trainings, and other measures to protect the privacy of students. In June 2020 we received University IRB approval. Two months later, we submitted a letter of inquiry to the Russell Sage Foundation to be able to apply for a larger grant. In September 2020, we presented a research plan to MLDS Center management personnel. Later that month, we also presented to the Research and Policy Advisory Board. We have since worked with MLDS Center personnel to address the helpful feedback we received in each of those presentations.

The bulk of our analyses will be conducted during spring of 2021, and we have requested a small grant through the University of Maryland College Park to fund a teaching release with this in mind. We hope to present an early version of our findings in an MLDS research seminar at the University of Maryland School of Social Work in the summer of 2021. After incorporating the feedback that we receive from this seminar, we will publish our findings as an MLDS Research Report in the fall of 2021.

Plans for Further Development

We hope to present the findings of this project at such national research conferences as the American Society of Criminology, the Population Association of America, and the Society for Research in Child Development. We also plan to submit our findings for publication in peer-reviewed academic journals. Examples of such journals include *American Sociological Review*, *Children and Youth Services Review*, *Demography*, and *Criminology*. In total, we expect to be able to submit three or four manuscripts (each related to a separate stage of our analyses) to academic journals.

Researcher(s)

Dr. Wade C. Jacobsen, Assistant Professor at the University of Maryland, College Park
 Biography: Dr. Wade Jacobsen is a member of the MLDS Research Branch. He is an Assistant Professor in the Department of Criminology and Criminal Justice at the University of Maryland College Park and a faculty associate at the Maryland Population Research Center. Dr. Jacobsen received his Ph.D. in sociology from Pennsylvania State University. He also worked as a research specialist at the Center for Research on Child Wellbeing at Princeton University. In his research, he investigates the ways in which schools and the criminal justice system interact to affect the wellbeing of children and youth in the United States. In his current work, he is examining the academic and social outcomes of students who experience suspension or expulsion or who become involved in the criminal justice system.

Dr. Mathew Uretsky, Investigator with the MLDS Center and Assistant Professor at Portland State University

Biography: Dr. Mathew C. Uretsky is an investigator with the MLDS Center and received his Ph.D. from the University of Maryland School of Social Work in 2016. He is a faculty affiliate at the University of Maryland School of Social Work and is an Assistant Professor at Portland State University. He has nearly a decade of experience as a social work practitioner and researcher working with schools, families, and community organizations to improve outcomes in underserved communities in the U.S. and internationally. Most recently his work has focused on building the capacity of state agencies to use administrative data for policy and program development. His research interests include the development and evaluation of interventions to support positive youth development. More specifically, his work examines the risk and protective factors that impact the academic and behavioral development of children and youth, with a focus on how the school and family environment influence student outcomes.