



# MLDS CENTER

Maryland Longitudinal Data System

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## MEMORANDUM

**TO:** MLDS Governing Board  
**FROM:** Mr. Ross Goldstein, Executive Director  
**DATE:** December 5, 2023  
**SUBJECT:** Project Approvals and Updates

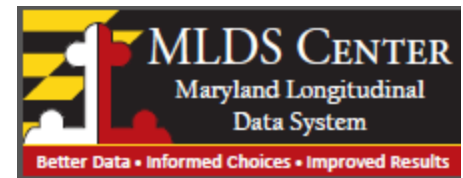
### Purpose

This agenda item is to update the Board on projects that have been reviewed and approved by the Executive Director under *Project Approval and Management Procedures*; projects that, when necessary, require Board review and approval; and updates on ongoing projects. Please note that in addition to the information presented for each new project, this memorandum also includes the complete project abstract submitted by the researcher for your further information and review.

### Projects for Consideration

<b>ERA # 75</b>	The Consequences of Multi-Dimensional Grade Variation for Students
<b>Researcher</b>	Dr. Nolan Pope, University of Maryland College Park
<b>Overview</b>	<ol style="list-style-type: none"> <li>1. How does being a student in an educational setting in which average grades are higher affect student learning, high school graduation, their transition to college, and later career success?</li> <li>2. How does grade variation correlate with other school and teacher characteristics such as test-score and noncognitive value-added?</li> <li>3. How might policies regarding grade variation impact income and racial test score gaps?</li> </ol>
<b>RPB Review</b>	The RPB raised no objections to this project.
<b>Exec. Dir. Determination</b>	Approved. The subject of this project is responsive to the Research Agenda, provides information about student performance that can be used to improve the state's education system, requires the use of longitudinal data, and is being conducted by a highly qualified researcher (who is also a member of the Center's Research Branch).
<b>Board Action</b>	Informational

<b>ERA # 81</b>	Longitudinal Outcomes for Maryland Public Schools-Towson University Model United Nations Participants
<b>Researcher</b>	Dr. Ann Kellogg, MLDS Center Director of Reporting Dr. Alison McCartney, Towson University, Professor
<b>Overview</b>	<p>Towson University runs a Model United Nations conference for Baltimore County Public Schools (BCPS). Now entering its 22nd year, the program was founded to help address inequities in access to civic education and provide a year-long global civic engagement learning opportunity for Maryland high schoolers regardless of their families' socio-economic circumstances. A majority-minority program, it connects participants with Towson University (TU) students and professors in role-playing simulations, growing from 74 students from 6 schools to about 300 high schoolers from 23 schools/year, mostly in Baltimore County, but also in Baltimore City, Anne Arundel County, and Charles County. The program provides transportation, materials, and all meals for all participants (many of whom are on school free-lunch/breakfast programs) for online and in-person events running from November-April.</p> <p>The project seeks to understand the long-term outcomes for students who participate in the Model UN program. The project will utilize the existing MLDS Center high school to college dashboard series (college enrollments and wages), to provide the data tables in the Immediates and Completes populations, with all current demographic and economic status disaggregations for Model UN participants. This includes race, ethnicity, gender and FARMS reported by high school and local school system.</p>
<b>RPB Review</b>	The RPB raised no objections to this project.
<b>Exec. Dir. Determination</b>	Approved. The subject of this project is responsive to the Research Agenda, provides information about student performance that can be used to improve the state's education system, requires the use of longitudinal data, and is being conducted by a highly qualified team, including the Center's Director of Reporting.
<b>Board Action</b>	Informational



Project Title	Agency Control #
The Consequences of Multi-Dimensional Grade Variation for Students	ERA 75

### Section 1. Principal Investigator

Principal Investigator (please list additional project team members in Section 7)
Nolan Pope
Principal Investigator's Email Address and Phone Number
<a href="mailto:npope@umd.edu">npope@umd.edu</a>
Name of University or Organization
University of Maryland, College Park
Principal Investigator Background and Qualification (provide overview of experience and attach a CV)
<p>Nolan Pope is an assistant professor at the Department of Economics at the University of Maryland at College Park. Professor Pope is a labor economist and applied microeconomist who specializes in public policy that improves individuals' labor market and educational outcomes. He uses quasi-experiments, large administrative data sets, and field experiments to answer questions in education, public economics, and labor economics. His research focuses on how measuring teacher quality affects both students and teachers, and how public policies influence underprivileged groups such as immigrants and low-income populations. He holds a Ph.D. in Economics from the University of Chicago, and a B.A. in Economics from Brigham Young University.</p>

### Section 2. Project Information

Abstract or Brief Description of Proposed Project (no more than 1,500 words)
<p>Schools affect students in many ways. For instance, schools affect test scores, suspensions, absences, effort, and adult earnings (Koedel and Rockoff, 2015; Petek and Pope, 2016; Jackson, 2018; Chetty et al., 2014a). In this proposed paper, we focus on a particular choice by schools: their grading practices. Does giving higher (or lower) average grades affect student learning, their transition to college, and later career success?</p> <p>For this project, we plan on using data from Maryland (i.e., data from the MLDS). We plan on using the MLDS data to first estimate two separate measures of grade variation for students in middle and high school and to look at how grade variation has evolved over time. We then will link students to teachers and estimate how receiving high average grades impacts students' transition and success in college and their preparation, persistence, and earnings in the workplace.</p> <p>We will use data from Los Angeles to validate these results (however the data in Los Angeles is much more limited such that we cannot look at college and workplace outcomes). We already have preliminary results from Los Angeles. Below I outline our proposed project and some of the preliminary results that we find in Los Angeles.</p>

## Project Approval - Detailed Application

In the project, we will first document how grades are changing over time. In Los Angeles, we find that grades over the 2004-2018 school cohorts have increased for math, English, and overall. Over this time period, the mean GPA increased by nearly 0.5 GPA points on a 4-point scale. This could reflect students learning more over this time period, or it could represent students receiving higher grades without attendant increases in student human capital. In the Maryland data, we would like to also document how average grades have changed over the last 15 years and determine if average grades are rising or declining. For this project, we refer to the spread of average grades given by schools and teachers as grade variation which is similar to work done by Figlio and Lucas (2004), Mozzenter (2019), and Gershenson et al. (2022).

To better understand grade variation, we plan to construct two measures of grade variation. These two measures estimate how much grades differ from test scores and past performance for both average students and for students at the low end of the grade distribution. Several previous projects documented that grading has become more lenient over time in high school and college (Zhang and Sanchez, 2013; Gershenson, 2018; Hurwitz and Lee, 2018; Denning et al., 2022; Sanchez and Moore, 2022). We will first determine if this is also the case in Maryland. Due to the large changes in grade variation in other places over this time, it becomes an important policy question to understand the effects that increasing (or decreasing) grades has on students' long-run outcomes. This is particularly important for helping students be college and career ready. This project will help inform College and Career Readiness standards (see MSDE's empirical study of the interim College and Career Readiness (CCR) standards [here](#)) and potentially provide a policy lever to help improve students' college and career preparation.

Reactions to increasing average grades are split into two theoretical camps for how grade increases may impact students. One camp is dismissive, suggesting that grade increases do not negatively affect students (Kohn, 2002). Others suggest that increasing average grades is harmful to students, leaving them unprepared for future educational or vocational endeavors (Wright, 2019). Both of these camps might be right—the effects of increasing grades on student success are ambiguous. Minimum grades are required to pass classes and ultimately graduate from high school. Hence, grade increases may cause students to pass classes and graduate when they otherwise would not. However, grades provide an incentive for students to study and learn the material. If this incentive is reduced, students may study less and learn less and therefore gain less human capital. This reduction in human capital may alternatively cause students to be less likely to pass future classes and graduate from high school and college and ultimately perform worse in the labor market. These two effects are in tension—higher grades can reduce failure but blunt incentives to study and learn material. These two effects of increasing grades also likely affect different students. Students on the margin of failing a class are more likely to benefit from higher average grades. Students who are easily above the passing margin may be harmed by the reduced incentive to study.

Using the MLDS data, we plan to bring empirical evidence to bear on the effects of higher (or lower) grades on students. We plan to use data on schools, teachers, and students from the state of Maryland and the second largest school district in the United States, the Los Angeles Unified School District. The MLDS data has several advantages for studying the effects of grade variation. The data will provide student level grades in all courses from middle school and high school, student test scores in math and English, and several measures of non-cognitive student performance. Because of the longitudinal nature of the data, we will be able to track students to longer term outcomes, such as high school graduation, college attendance, college remediation, college performance, college graduation, earning after leaving school, and persistence in the labor market.

We believe our paper will make several contributions to our understanding of grading practices. First, we will be constructing two measures of grade variation for each teacher in our sample: one that

measures “mean grade variation”, similar to Figlio and Lucas (2004), Mozenter (2019), and Gershenson et al. (2022). Mean grade variation measures how much higher (or lower) grades are than would be expected. However, we introduce another measure that measures grade variation in receiving a passing grade, which we refer to as “passing grade variation”. Using these measures allows us to understand the tradeoffs of greater grade variation along these two dimensions. In the LAUSD, we have already estimated these measures and have shown that these two measures of grade variation are correlated (correlation coefficient of 0.78) but distinct. Hence, we conclude that mean grade variation and passing grade variation represent related, but sometimes distinct grading practices. We will then use the MLDS data so determine how impactful these two measures are on the long-run outcomes of students.

In our preliminary results in LAUSD we consider the effect of these measures on short term student outcomes. We find that students who are in educational settings in which average grades are higher have lower performance on tests in subsequent years. With the MLDS we want to build on this finding and document the effects of grade variation on longer-run outcomes. With the MLDS data we plan on following this causal chain to document the impact of grade variation on high school graduation, students’ transition and success in college and their participation and earnings in the workplace.

The MLDS data also provides rich information about student characteristics that are unavailable in the LAUSD data. This will also allow us to determine how higher or lower grades impact the test score gap between different subgroups such as by income, race, and gender.

**Research Project Question**

We propose to answer the following questions:

- 1) How does being a student in an educational setting in which average grades are higher affect student learning, high school graduation, their transition to college, and later career success?
- 2) How does grade variation correlate with other school and teacher characteristics such as test-score and noncognitive value-added?
- 3) How might policies regarding grade variation impact income and racial test score gaps?

**Research Methods (provide a brief description of the research methods you plan to use)**

To construct our first measure of mean grade variation, we follow a method similar to Figlio and Lucas (2004); Gershenson et al. (2022); and Mozenter (2019). To do so we will use the seventh through eleventh grade cohorts starting in the 2012-13 school year through the 2018-19 school year. We use the following regression to estimate mean grade variation:

$$Grade_{ijst} = GI_{jt}^{mean} + \beta_1 TestScore_{ijst} + \beta_2 Grade_{ijst-1} + X_i \beta + \varepsilon_{ijst}$$

where i indexes student, j indexes teacher, s indexes school, and t indexes year. The object of interest is  $GI_{jt}$  which is the year-specific teacher fixed effect. This is the teacher's contribution to grades after controlling for several important factors. First, we account for a student's performance in the subject as measured by their test score. Second, we control for student characteristics like prior student absences, suspensions, and test scores in prior years. Importantly, we also control for  $Grade_{ijst-1}$  which is the student's grade in the focal subject from the prior year.

For each teacher we calculate  $GI_{jt}$  which is our measure of grade variation. We call this “mean grade variation” to distinguish it from passing grade variation which we discuss below. Mean grade variation

is how much a teacher raises (or lowers) their students' average grades relative to their academic performance.

Our second measure of grade variation replaces  $Grade_{ijst}$  in the above equation with an indicator for passing the class. This indicator is equal to 0 if a student received an F in the course and equal to 1 if the student received a grade of D or better. This alternative measure of grade variation is designed because some teachers may raise the grades of their students generally, whereas others may increase the probability that a student passes the class. We expect that these two measures of grade variation may have different effects as discussed above. For our second measure, we are still interested in the teacher effect which we refer to as Pass  $GI_{jt}$ .

Once both of these grade variation measures are calculated, we estimate the effects of grade variation on longer term outcomes using specifications similar to Chetty et al. (2014b) and Petek and Pope (2016) where an observation is a student-year and regress a longer term outcome (such as high school graduation, college attendance, college GPA, college graduation, employment status, or earnings on the two grade variation measures, along with test score and noncognitive value-added measures, and the same set of controls used to construct the grade variation measures. In particular, we estimate the following equation:

$$Y_{it} = \alpha GI_{it}^{mean} + \theta GI_{it}^{pass} + \delta VA_{it}^{test} + \psi VA_{it}^{noncog} + \psi VA_{it}^{noncog} + X_i \beta + \eta_{it}$$

In this regression an observation is a student-year. We cluster our standard errors at the classroom level to account for within classroom correlation of outcomes. The coefficients of interest are  $\alpha$  and  $\theta$  which estimate the effect of mean grade variation and passing grade variation after accounting for other student and teacher characteristics.

**How will this research benefit the State of Maryland?**

This research will provide the following benefits to the State of Maryland:

- 1) This research will evaluate the average grades given to Maryland middle and high school students and provide a summary of the current and recent trends of grades in Maryland. This will help inform College and Career Readiness (CCR) standards and parts of the Blueprint for Maryland's Future.
- 2) In addition, this research will provide policy recommendations on how schools and school districts can either increasing or decreasing the average grades given to students by schools to improve students' test scores, high school graduation, college remediation, and college attendance.

**Explain why this research requires longitudinal cross-sector data?**

We require longitudinal cross-sector data for two reasons:

- 1) To study the persistent effect of grade variation on students, we need to be able to observe students over an extended period of time starting in high school and moving into college and the workforce.
- 2) While prior work has shown short term effects of grade variation, it is unclear whether these effects are temporary or have lasting consequences for students. The only way to determine this is by using longitudinal cross-sector data that connects students from high school to college and the workforce.

Project Approval - Detailed Application

<b>Proposed Center Output</b>		
<p>We propose to produce a series of descriptive statistics relating to grade variation in the state of Maryland. This would include the current grading practices and outcomes of students as well as how these have changed over time. In addition to these descriptive statistics, we will also provide a policy brief of our finds to be used by the MLDS Center.</p>		
<b>Timeline for the proposed project (identify major deliverables and approximate dates)</b>		
<ul style="list-style-type: none"> <li>● Submitting this proposal and getting approval:             <ul style="list-style-type: none"> <li>○ Aiming for approval at the October 2023, Governing Board meeting.</li> </ul> </li> <li>● Submitting proposal to IRB and getting approval:             <ul style="list-style-type: none"> <li>○ October 31th, 2023, to November 15th, 2023</li> </ul> </li> <li>● Time for the Center to prepare the data:             <ul style="list-style-type: none"> <li>○ November 1st, 2023, to December 1st, 2023</li> </ul> </li> <li>● Getting familiar with the data and cleaning/analysis:             <ul style="list-style-type: none"> <li>○ November 1st, 2023, to January 31st, 2024</li> </ul> </li> <li>● Present and receive feedback on the project:             <ul style="list-style-type: none"> <li>○ February 1st, 2023, to April 31st, 2023</li> </ul> </li> <li>● Draft of the Center Product:             <ul style="list-style-type: none"> <li>○ May 1st, 2023, to July 31st, 2024</li> </ul> </li> <li>● Rough date of submission of the Center Product:             <ul style="list-style-type: none"> <li>○ July 31st, 2024</li> </ul> </li> <li>● Draft to finalization of the further developed work:             <ul style="list-style-type: none"> <li>○ July 31st, 2024, to September 1st, 2024</li> </ul> </li> <li>● Submission of further developed work to Center:             <ul style="list-style-type: none"> <li>○ October 1st, 2024</li> </ul> </li> <li>● Submission of further developed work to journals and presentation of work at conferences:             <ul style="list-style-type: none"> <li>○ November 1st, 2024, onward</li> </ul> </li> <li>● Quarterly progress reports:             <ul style="list-style-type: none"> <li>○ November 2023</li> <li>○ February 2024</li> <li>○ May 2024</li> <li>○ August 2024</li> <li>○ November 2024</li> </ul> </li> </ul>		
<b>Plans for further development (i.e. journal submission, etc)</b>		
<p>Our further developed work is intended to be a research paper to be submitted to economic journals for publication. We also anticipate presenting the paper at seminars, both internal to the Economics department at the University of Maryland, and at relevant conferences.</p>		

**Section 3. MLDS Center [Research Agenda](#)**

Does your project relate to one of the following areas which the General Assembly has specifically directed the MLDS to study:	Yes	No
The impact of a State or federal education program? <sup>1</sup>	Yes	
The performance of educator preparation programs?		No
Best practices regarding classroom instruction?	Yes	

<sup>1</sup> All projects must relate to a state or federal education program. If you are not sure, please contact [ross.goldstein@maryland.gov](mailto:ross.goldstein@maryland.gov).

Project Approval - Detailed Application

The impact of child welfare programs on the educational and economic outcomes of students?		No
An analysis of social determinants, provided by State agencies <sup>2</sup> and appropriate local agencies, that impact education performance of students and indicate the need for wraparound services for students.		
<b>Research Agenda Category (page 2 of the <a href="#">Research Agenda</a>) – Which category does the project address? Please explain.</b>		
<p>The primary research agenda categories addressed by our research are the following:</p> <ul style="list-style-type: none"> <li>• Pathways and Pipelines: Study of the entry, transition, and exit points students take into specific education, service and labor sectors. In this project we will look at how grade variation impacts the transition out of high school and into post-secondary education and/or career.</li> <li>• Educational, Service, and/or Workforce Outcomes: Study of student-level and/or institutional-level characteristics and the importance of these characteristics in predicting outcomes. We will also look at how the impact of grade variation differentially affect students from the bottom of the achievement distribution and students with disadvantaged backgrounds.</li> </ul>		
<b>Research Agenda Themes (page 2-3 of the <a href="#">Research Agenda</a>) - Which cross cutting theme is incorporated in the project? Please explain.</b>		
<p>The primary cross cutting theme incorporated in the project is:</p> <ul style="list-style-type: none"> <li>• Supports and Barriers: Research and reporting that considers the structural and administrative factors, including policies, that impact progressions between and within education and workforce sectors. In particular, we will look and how grading policies impact the progression of high school students into college and their career. We will study how higher or lower grades can be either a support or barrier to this transition.</li> </ul>		

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<sup>2</sup> State agencies include: Maryland Department of Health, Department of Human Services, and Department of Juvenile Services



**Section 4. Data and Cross Sector Analysis**

Sectors*	X
Early Child Sector	
K-12 Education Sector	X
Adult Education Sector	
Justice Involved Youth Sector	
Child Welfare Sector	
Postsecondary Education Sector	X
Other Completions and Credentials Sector	
Workforce sector	X

*Put an 'x' next to each data sector your project will include. You must have at least 2 sectors.*

Optional - Additional Information about planned data use (such as cohort identification; years of data needed)
Do you plan to request to include <a href="#">external data</a> as part of your project?
No

**\*Sectors**

**Early Childhood Education Sector;**

- PreK Academic Engagement

**K-12 Education Sector;**

- Public School Student Education Records (Attendance, Assessments, Grades, Completions, Discipline, etc.)
- Public School Characteristics

**Adult Education Sector;**

- GED/NEDP Exam Results
- Apprenticeship
- Adult Education
- Correctional Education

**Justice Involved Youth Sector;**

- Juvenile Justice Records
- Juvenile Education Records

**Child Welfare Sector;**

- Out-of-Home Placements

**Postsecondary Education Sector;**

- College & University Enrollments, Courses, Credits, Grades, Degrees & Financial Aid
- College & University Student Workforce Training

**Other Completions and Credentials Sector; and/or**

- Industry Certifications
- Licenses

**Workforce Sector.**

- Public School Teacher Characteristics and Credentials
- Public School Staff Characteristics and Credentials
- Workforce Earnings
- Workforce Labor Sectors

Project Approval - Detailed Application

**Section 5. Financial Information**

<p><b>The MLDS Center incurs costs for every project related to: (a) IT support and infrastructure; (b) assistance from subject matter experts, (c) criminal history background checks; and (d) creation of an analytic data set. Average project costs are between \$3,000 and \$5,000. A detailed, customized estimate will be provided prior to project initiation. (Please indicate your answer with an "X")</b></p>							
<table border="1"> <tr> <td style="width: 50px;"></td> <td>I will reimburse MLDS for all applicable fees.</td> </tr> <tr> <td></td> <td>I will only able to provide partial reimbursement.</td> </tr> <tr> <td>X</td> <td>I will need a waiver.</td> </tr> </table>		I will reimburse MLDS for all applicable fees.		I will only able to provide partial reimbursement.	X	I will need a waiver.	
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	I will only able to provide partial reimbursement.						
X	I will need a waiver.						
<p><b>Grant Funding (indicate with an 'X')</b></p>							
<table border="1"> <tr> <td style="width: 50px;"></td> <td>This project has already received funding</td> </tr> <tr> <td></td> <td>I plan to apply or am in the process of applying for grant funding</td> </tr> <tr> <td>X</td> <td>No grant funding is planned</td> </tr> </table>		This project has already received funding		I plan to apply or am in the process of applying for grant funding	X	No grant funding is planned	
	This project has already received funding						
	I plan to apply or am in the process of applying for grant funding						
X	No grant funding is planned						
<p><b>Name of Grantor</b></p>							
<p>NA</p>							
<p><b>RFP or Grant Program Information (you may provide a link to the grantor's website)</b></p>							
<p>NA</p>							
<p><b>Amount of grant funds sought or awarded.</b></p>							
<p>NA</p>							
<p><b>Grant Application Date</b></p>							
<p>NA</p>							
<p><b>Do you intend to proceed without grant funding?</b></p>							
<p>Yes</p>							
<p><b>Are you receiving other funding for this proposed project? If yes, how much?</b></p>							
<p>If we do not receive a waiver, we will be requesting the capped cost be at \$2000 given our need to pay with our own funds. In the event we receive a waiver or have the capped cost, we will be using limited funding provided by the Economics Department to fund the remaining cost.</p>							

**Section 6. Special Considerations**

**Principal Investigators NOT affiliated with a Maryland College or University – please provide information on:**

- a. Your familiarity with Maryland policies affecting your research topic; and
- b. How your project meets a specific Maryland research need?

**Please also upload (with this form) any letters of reference or endorsement from a Maryland researcher or a State or local agency that vouches for your qualifications and expertise.**

NA

**For projects that involve a small population, please confirm that you are aware of the MLDS Center’s [data suppression policy](#) and explain how you will report your findings while conforming to the suppression requirements.**

NA

**For projects that involve a single school system, university, or program, please explain the statewide implications of the project.**

**Please also upload (with this form) any letters of support from the subject (i.e. school system or university) of the study.**

NA

**Section 7. Project Team**

<p><b>Project Team</b></p> <ul style="list-style-type: none"> <li>- Please list all members of the research team and indicate roles and responsibilities.</li> <li>- If the Principal Investigator listed in Section 1 above is NOT the primary point of contact for the project (including research, data access, and presentations to stakeholders), please indicate which team member is the primary point of contact and provide that individual's contact information.</li> </ul>		
Name and Organization	Role	Is system access needed? (Yes/No)
Nolan Pope, University of Maryland	Lead PI	Yes
Rachel Nesbit, University of Maryland	Co-author	Yes
Erica Ryan, University of Maryland	Research Assistant	Yes

**Section 8. Submission**

Once this form is completed, please complete the online application ([here](#)) and upload this form, CVs for all members of the research team, and any other supporting materials.

Project Title	Agency Control #
TU-BCPS Model UN High School Participants: Longitudinal Outcomes	ERA 81

**Section 1. Principal Investigator**

Principal Investigator (please list additional project team members in Section 7)
<p>Alison McCartney</p> <p>Ann Kellogg</p>
Principal Investigator's Email Address and Phone Number
<p><a href="mailto:amccartney@towson.edu">amccartney@towson.edu</a></p> <p>ann.kellogg@maryland.gov</p>
Name of University or Organization
Towson University
Principal Investigator Background and Qualification (provide overview of experience and attach a CV)
<p>Alison McCartney, Professor of Political Science</p> <p>Researcher on civic engagement education (see publications and conference presentations in CV)</p> <p>Co-creator and co-chair, Towson University-Baltimore County Public Schools Model United Nations conference program, Dr. McCartney's work in the program includes co-directing, co-assessing, and co-planning all program activities with the Program Manager, Michele Calderon, and leading all grant and research applications and all publications and conference presentations regarding the program. There is no independent evaluator.</p> <p>Ann Kellogg holds a PhD in Public Policy from UMBC. She has been the Director of Reporting Services for the MLDS Center since January 2018 where she has produced numerous descriptive studies using MLDS data.</p>

**Section 2. Project Information**

Abstract or Brief Description of Proposed Project (no more than 1,500 words)
<p>Recent events have highlighted the lack of knowledge about government, its policies, and its processes and some citizens' unwillingness to engage in peaceful, respectful democratic deliberation to work through differences and create policy to solve our common problems.</p>

Many Americans also have a thin understanding of our global-local connections, assuming that some form of isolationism is still feasible in a 21<sup>st</sup> century world. Meanwhile, the K-12 civics curriculum has been gutted in the post-Cold War era, and co-curricular options for learning about and practicing civic engagement have lost funds due to budget cuts and increased investment in other areas (Owens, 2017 and Owens and Riddle, 2013). The consequence is that only high schoolers from affluent families have been able to continue a robust civic education through co-curricular activities which generally costs thousands of dollars and require family-based transportation (assumes that a parent is always free and has a personal vehicle). The inability to participate in co-curricular learning activities which augment or replace in-class learning leaves less-affluent high schoolers further behind their more affluent classmates, which then also hinders their chances for college admission, scholarships, and above-living wage employment; further, their less-developed knowledge, skills, and experience to effectively engage with the political system to address their needs and circumstances means that they lack the tools and sense of efficacy to develop and promote changes which could transform their circumstances and bring equity to our political, economic, and social systems. High school teachers, concerned about their students' futures, lack affordable options to address these gaps in their students' education.

The TU-Baltimore County Public Schools (BCPS) Model United Nations conference, now entering its 22<sup>nd</sup> year, was founded to help address inequities in access to civic education and provide a year-long global civic engagement learning opportunity for Maryland high schoolers regardless of their families' socio-economic circumstances. A majority-minority program, it connects participants with Towson University (TU) students and professors in role-playing simulations, growing from 74 students from 6 schools to about 300 high schoolers from 23 schools/year, mostly in Baltimore County (our partner), but also in Baltimore City, Anne Arundel County, and Charles County. The program provides transportation, materials, and all meals for all participants (many of whom are on school free-lunch/breakfast programs) for online and in-person events running from November-April. While many versions of Model UN have existed for decades, the TU-BCPS version is unique because it is a free, comprehensive, year-long program which brings high schoolers and college students together in an accessible and mutually beneficial global and civic engagement learning program. Most other versions are very costly and serve as fundraisers for college Model UN teams. A few are quick simulations that take place for a few hours on one day, generally in wealthier school districts, and rarely if ever include activities fully developed and supervised by teachers or college-level educators.

Our existing self-report data from post-conference high school student and high school teacher surveys shows that the program has been very successful in advancing high school participants skills, knowledge, and college and career preparation per our learning objectives, which include developing writing, research, and oral presentation skills; problem-solving capabilities; preparation for higher education, career, leadership, and global

citizenship; experience in working with others from a variety of contexts and perspectives; and knowledge on various countries' politics, cultures, and problems and contemporary international relations. For example, in 2020, 92% of high schoolers said that they "learned a lot about international relations from this experience." In 2021, 82% of high schoolers said they developed their leadership skills as a result of conference participation. While high schoolers' self-report data strongly endorses this model, we have no longitudinal research about what works for whom and under what conditions and which long-term associations may/may not exist with participants' college and post-collegiate professional choices and successes. Longitudinal research on the associations between these types of programs with achieving educational development goals is sparse, with preliminary research just beginning.

**DATA POINTS REQUESTED:**

Population of Interest: TU-BCPS Model UN high school participants 2007-2020. TU will provide a list of students who participated in the Model UN program for matching to MLDS Center data.

We request the following:

Utilizing the high school to college dashboard series ([college enrollments](#) and [wages](#)), please provide the data tables in the Immediates and Completes populations, with all current demographic and economic status disaggregations for the TU-BCPS population.

This includes race, ethnicity, gender and FARMS reported by high school and local school system.

Please use the existing cohort year definitions to report degree by age 25 and wages at age 25 for all the subpopulations in the existing dashboard structure; If available, please provide the disaggregations by high school program completion type, NAICS code, degree level and major.

**Research Project Question**

**What are the college and career outcomes for participants in the TU-BCPS Model UN?**

**Research Methods (provide a brief description of the research methods you plan to use)**

Descriptive statistics

**How will this research benefit the State of Maryland?**

Towson University, Baltimore County Public Schools, and several schools in Anne Arundel County, Charles County, and Baltimore City collectively provide over \$100,000 per year (including costs such as but not limited to transportation, food, teacher extra duty pay, substitute teacher costs, materials, technology, and TU staff costs) to support this program. In addition, hundreds of volunteer hours per year from TU faculty, students, and alumni keep

this program running. It is therefore important to know what happens to our high school participants. Do they seek higher education? Do they remain in Maryland for college and career? In what sectors do they work? Knowing the answers to these questions will help the program organizers to improve or change the program so that it can better achieve its goals. This program can also reveal whether a select group of students who are deemed to have high-achieving potential attend college in Maryland, what they study, and their career outcomes.

**Explain why this research requires longitudinal cross-sector data?**

We are interested in the long-term outcomes for students who participate in the Model UN program. The data are cross-sector as the baseline population of interest is high school graduates and we are interested in their long-term college and workforce outcomes.

**Proposed Center Output**

Proposed Center output could include a Policy Brief devoted to the topic of Civic Engagement and the TU-BCPS Model UN Program. The output will be discussed with the MLDS staff.

**Timeline for the proposed project (identify major deliverables and approximate dates)**

December 2023: Receive TU data file and resolve identities  
 January 2024: Merge data file against high school to college dashboard comprehensive reporting table to produce analysis

**Plans for further development (i.e. journal submission, etc)**

*Book publication* anticipated late summer-Fall 2024  
*Conference Presentations:*  
 -2024 Civic Learning and Democratic Engagement annual conference (June 2024)  
 -American Political Science Association annual conference (September 2024 – possible book launch)  
 This data will also inform revisions to the TU-BCPS Model UN conference and be shared with our institutions, Towson University and Baltimore County Public Schools, via an internally circulated data report.

**Section 3. MLDS Center [Research Agenda](#)**

Does your project relate to one of the following areas which the General Assembly has specifically directed the MLDS to study:	Yes	No
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The impact of a State or federal education program? <sup>1</sup>	X	
The performance of educator preparation programs?		X
Best practices regarding classroom instruction?		X
The impact of child welfare programs on the educational and economic outcomes of students?		X
An analysis of social determinants, provided by State agencies <sup>2</sup> and appropriate local agencies, that impact education performance of students and indicate the need for wraparound services for students.		X
<b>Research Agenda Category (page 2 of the <a href="#">Research Agenda</a>) – Which category does the project address? Please explain.</b>		
<u>Pathways and Pipelines</u> – This research will highlight where students end up regarding specific education, service, and labor sectors after program participation. The focus of this pathway and pipeline study will be descriptive to identify participant patterns rather than focus on causal relationships.		
<b>Research Agenda Themes (page 2-3 of the <a href="#">Research Agenda</a>) - Which cross cutting theme is incorporated in the project? Please explain.</b>		
<u>Primary theme: Equity and Inclusion:</u> This research will help to develop reporting that considers the access and opportunities available to individuals who have been historically under-represented throughout their education and careers by presenting data on where students were socio-economically when attending high school, where they went to college and under which aid options, and what their career outcomes are in terms of profession and salary.		

<sup>1</sup> All projects must relate to a state or federal education program. If you are not sure, please contact [ross.goldstein@maryland.gov](mailto:ross.goldstein@maryland.gov).

<sup>2</sup> State agencies include: Maryland Department of Health, Department of Human Services, and Department of Juvenile Services

**Section 4. Data and Cross Sector Analysis**

<b>Sectors*</b>	<b>X</b>
Early Child Sector	
K-12 Education Sector	X
Adult Education Sector	
Justice Involved Youth Sector	
Child Welfare Sector	
Postsecondary Education Sector	X
Other Completions and Credentials Sector	
Workforce sector	X

*Put an 'x' next to each data sector your project will include. You must have at least 2 sectors.*

<b>Optional - Additional Information about planned data use (such as cohort identification; years of data needed)</b>
<p>Population for our study:</p> <ul style="list-style-type: none"> <li>• Maryland high school students who participated in TU-BCPS Model UN AY 2007-2020</li> <li>• Ranges from 85-310 students per year</li> <li>• Total number of people: ~2600</li> </ul>
<b>Do you plan to request to include <a href="#">external data</a> as part of your project?</b>
<p>We have created a list of participants previously gathered by the project investigators for AY 2007-2020 (approx. 2600). Data include names of high school student participants and their high school attended at the time of program participation (3 data fields – name, high school, program year). Names were submitted by their sponsoring teacher, submitted to their high schools for travel authorization, and checked by Towson University students who staffed the program’s registration desk. Data were collected to authorize and verify conference attendance. Data were not changed after verification of program attendance.</p>

**Section 5. Financial Information**

**The MLDS Center incurs costs for every project related to: (a) IT support and infrastructure; (b) assistance from subject matter experts, (c) criminal history background checks; and (d) creation of an analytic data set. Average project costs are between \$3,000 and \$5,000. A detailed, customized estimate will be provided prior to project initiation. (Please indicate your answer with an "X")**

	I will reimburse MLDS Center for all applicable fees.
	I will only be able to provide partial reimbursement.
X	I will need a waiver.

**Grant Funding** (indicate with an 'X')

	This project has already received funding
	I plan to apply or am in the process of applying for grant funding
X	No grant funding is planned

**Name of Grantor**

N/A

**RFP or Grant Program Information (you may provide a link to the grantor's website)**

N/A

**Amount of grant funds sought or awarded.**

N/A

**Grant Application Date**

N/A

**Do you intend to proceed without grant funding?**

The overall project will proceed, but without this data if this application is not accepted.

**Are you receiving other funding for this proposed project? If yes, how much?**

None

**Section 6. Special Considerations**

**Principal Investigators NOT affiliated with a Maryland College or University – please provide information on:**

- a. Your familiarity with Maryland policies affecting your research topic; and
- b. How your project meets a specific Maryland research need?

**Please also upload (with this form) any letters of reference or endorsement from a Maryland researcher or a State or local agency that vouches for your qualifications and expertise.**

**N/A**

**For projects that involve a small population, please confirm that you are aware of the MLDS Center’s [data suppression policy](#) and explain how you will report your findings while conforming to the suppression requirements.**

We understand some of the requested disaggregations may require suppression.

**For projects that involve a single school system, university, or program, please explain the statewide implications of the project.**

**Please also upload (with this form) any letters of support from the subject (i.e. school system or university) of the study.**

This program is only offered at TU and BCPS; however, TU and BCPS are not the focus of the analysis. The focus is on where this population goes *after* participation in the Model UN program. NOTE - Letter received from the Director of Social Studies at BCPS who indicated his support for the study.

**Section 7. Project Team**

<b>Project Team</b>		
<ul style="list-style-type: none"><li>- Please list all members of the research team and indicate roles and responsibilities.</li><li>- If the Principal Investigator listed in Section 1 above is NOT the primary point of contact for the project (including research, data access, and presentations to stakeholders), please indicate which team member is the primary point of contact and provide that individual's contact information.</li></ul>		
<b>Name and Organization</b>	<b>Role</b>	<b>System Access (Yes/No)</b>
Michele Calderon	Lecturer, Program Manager, Towson University – will assist with data analysis and writing	Yes
Ann Kellogg	MLDS	Yes
Alison McCartney	Towson	No

**Section 8. Submission**

Once this form is completed, please complete the online application ([here](#)) and upload this form, CVs for all members of the research team, and any other supporting materials.