



# MLDS CENTER

Maryland Longitudinal Data System

Address 550 West Baltimore Street  
Baltimore, MD 21201  
Phone 410-706-2085  
Email mlds.center@maryland.gov  
Website www.MLDScenter.org

## MEMORANDUM

**TO:** MLDS Governing Board  
**FROM:** Mr. Ross Goldstein, Executive Director  
**DATE:** March 1, 2024  
**SUBJECT:** Project Approvals and Updates

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### 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.

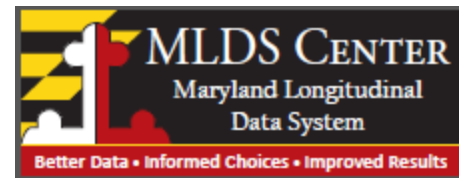
### Projects for Consideration

<b>ERA # 83</b>	CTE Program Implementation and Opportunities for Upward Mobility for High Poverty Groups
<b>Researcher</b>	Jen Filosa, UMBC
<b>Overview</b>	<ol style="list-style-type: none"> <li>1. How is access to CTE distributed across Maryland relative to the opportunity for upward mobility for high poverty groups through in-demand jobs in the local labor markets? Are CTE programs that lead to higher income potential not available in some jurisdictions due to lack of labor market demand or due to educational resource availability?</li> <li>2. Which students are receiving CTE programming leading to concentration status versus completer status in Maryland public schools, and how is this difference between concentration and completer status impacting upward mobility for high poverty groups? Are students who complete CTE programs intended for</li> </ol>

	<p>direct labor market entry actually entering the labor market in a related sector, and are students who complete CTE programs that require additional postsecondary education actually enrolling in college in a related major?</p> <p>3. Do CTE offerings in different urbanities and geographic locations of Maryland impact who is receiving CTE programs in Maryland public schools? Do CTE offerings match the local labor market demand in different geographic locations?</p>
<b>RPB Review</b>	The RPB had clarifying questions and suggested additional inquiries to strengthen the project. The recommendation from RPB was for the project to be approved by the Executive Director.
<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 qualified graduate student under the supervision of Research Branch member, Dr. Jane Lincove.
<b>Board Action</b>	Informational

<b>ERA # 85</b>	Maryland's Promise Scholarship and pathways into college and the workforce
<b>Researcher</b>	Dr. Catherine Mata, Brown University
<b>Overview</b>	<p>In this study, we will explore the multifaceted effects of the Maryland Community College Promise Scholarship (Promise) on students' access to postsecondary education and its subsequent implications for labor market integration. The proposed research is structured around the following core questions:</p> <ol style="list-style-type: none"> <li>1. What are the characteristics of Promise recipients in K-12? How do Promise recipients differ from non-recipients in terms of sociodemographic characteristics and K-12 course-taking and achievement?</li> <li>2. How does the Maryland Community College Promise Scholarship (Promise) affect access to postsecondary education?</li> </ol>

	<p>3. Does the Promise complement or substitute existing federal and state financial aid resources?</p> <p>4. What is the effect of the Promise on college success, measured through metrics such as course completion, persistence, and graduation rates?</p> <p>5. What are the trajectories of the Promise recipients in the labor market, measured through workforce outcomes such as employment rates, earnings, and career progression?</p> <p>Note. In addressing research questions 2 through 5, we will conduct detailed analyses to understand how the impacts of the Promise differ by K-12 achievement and CTE participation, race, socioeconomic status, and other sociodemographic characteristics available in the data.</p>
<b>RPB Review</b>	<p>RPB members were very interested in the project. They had a lot of input and suggestions and asked for a follow-up meeting to allow them to collaborate further. The recommendation from RPB was for the project to be approved by the Executive Director.</p>
<b>Exec. Dir. Determination</b>	<p>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.</p>
<b>Board Action</b>	<p>Informational</p>



Project Title	Agency Control #
CTE Program Implementation and Opportunities for Upward Mobility for High Poverty Groups	83

**Section 1. Principal Investigator**

<b>Principal Investigator (please list additional project team members in Section 7)</b>
Jennifer A. Filosa
<b>Principal Investigator’s Email Address and Phone Number</b>
<a href="mailto:jfilosa1@umbc.edu">jfilosa1@umbc.edu</a>
<b>Name of University or Organization</b>
University of Maryland, Baltimore County
<b>Principal Investigator Background and Qualification (provide overview of experience and attach a CV)</b>
Jennifer Filosa is a doctoral student of Public Policy at UMBC with a Masters in Leadership in Teaching from Notre Dame of Maryland University (2010). She is currently the Career and Technical Education Site Coordinator at Owings Mills High School in Baltimore County Public Schools. Her research interests focus on CTE Program implementation in public schools as well as the impacts of CTE on local labor market outcomes.

**Section 2. Project Information**

<b>Abstract or Brief Description of Proposed Project (no more than 1,500 words)</b>
<p>The proposed study will use data from the Maryland Longitudinal Data System (MLDS) in both descriptive and causal analysis to draw conclusions regarding CTE program implementation in Maryland public schools and the possible upward mobility outcomes for high poverty groups. Given the current Blueprint for Maryland’s Future, passed by the Maryland General Assembly in 2021, this study will examine trends from before and after the implementation of the Blueprint on both CTE program implementation and apprenticeship participation. This will include a descriptive analysis of CTE program placements throughout the state, as well as a causal analysis evaluating the impacts of CTE programs on high poverty groups.</p> <p>Two objectives of CTE are 1) to provide career opportunities leading to upward mobility for public students, and 2) to meet Maryland’s changing workforce needs. State and local education jurisdictions create CTE programs and their requirements with the expectation that students will sort into programs based on skills and interests and, in the future, add to the Maryland labor market. However, options preferred by educators and policymakers may not align with student preferences, leading to an inefficient allocation of program seats across schools. Because students often select into high school CTE as they exit middle school, it is also likely that many students chose based on limited information about the programs and their potential benefits. Overall, it is unclear whether top-down CTE program planning can provide programs that are well-matched with both students’ preferences and job market opportunities. To inform Maryland policymakers about the best investments of CTE</p>

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resources, this study will examine the alignment of supply and demand of CTE in Maryland, with a focus on whether current options create new economic opportunities for students in poverty.

Part One of the analysis will provide a statewide overview of the distribution of CTE programs across Maryland districts and student populations including:

1. The Maryland Career Clusters that are represented throughout the state and where they are represented in the different school districts
2. The level of demand for CTE courses leading to a program of study as determined by enrollment numbers
3. The distinction between Maryland high school graduates who are completers, concentrators, and participants in CTE programs
4. Comparison of CTE programming between rural, suburban, and urban school districts, including an analysis of the poverty rates within each level of urbanicity

Part Two of the analysis will provide a deeper dive into CTE programs across Maryland with a heightened focus on opportunity gaps that may allow for high poverty students to access upward mobility through CTE programming. Through quasi-experimental designs, data found in the MLDS Center will provide an opportunity to seek answers regarding CTE program implementation and access for students across Maryland and whether the implementation is allowing student populations with high poverty concentrations access to upward mobility, either through access to a job right after high school, or access to college in a professional CTE program of study.

\*Rothschild, M., & Stiglitz, J. (1976). Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information. *The Quarterly Journal of Economics*, 90(4), 629.  
<https://doi.org/10.2307/1885326>

**Research Project Question**

1. How is access to CTE distributed across Maryland relative to the opportunity for upward mobility for high poverty groups?
2. Which students are receiving CTE programming leading to concentration status versus completer status in Maryland public schools?
3. Do CTE offerings in different urbanities and geographic locations of Maryland impact who is receiving CTE programs in Maryland public schools? Do CTE offerings match the local labor market demand in different geographic locations?
4. To what degree is the middle school a student attends leading to access to CTE high school programming?

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

The objective of this analysis is to determine whether there are causal impacts of CTE program implementation on upward mobility opportunities for high poverty students. The analytic strategy is descriptive and causal. Analyzing CTE course data and analyzing impacts on the opportunity for upward mobility will have additional education policy implications, and with the Blueprint's goal of having 45% of all Maryland public school graduates earning a certification or completing an apprenticeship by 2031, policymakers can use the information in the potential findings to determine barriers to reaching the goal and examine variables to accelerate the current numbers in order to reach this goal.

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**Part 1. Statewide Overview of CTE Programs of Study**

The work will begin with an overview of Maryland CTE Programs of study and their representation throughout the state’s school districts, followed by a detailed description of Maryland high school graduates who are completers, concentrators, and participants in CTE programs, including demographics and urbanicity. This will be followed with an analysis of the local labor market industry concentrations in each school district and a comparison to the school district’s CTE programming. Results will be visualized in tables and bar graphs.

**Part 2. Causal Analysis of CTE Program Implementation on Local Labor Market Outcomes**

The empirical modeling methodologies include multilevel random effects modeling, propensity score matching, and coding of different types of CTE programs by theoretical constructs (college-bound, highly employable, union job, etc.) to conduct OLS regression.

Ultimately, the analysis is intended to draw conclusions regarding CTE program placement and varying levels of completion in order to determine whether program placement is leading to opportunities for upward mobility for Maryland’s high poverty students.

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

In 2021, the Maryland General Assembly passed the Blueprint for Maryland’s Future which includes an increased focus on college and career readiness for Maryland public school graduates. Within the CCR metric, the law sets the expectation on public schools to have 45% of the graduating high school senior class earning an industry certification or participating in an apprenticeship program by 2031. CTE programming is set to help move students toward these goals as each CTE program of study has at least one industry credential associated with a completer, and apprenticeships are also managed within a school’s CTE department. While this particular study will end by 2024, the initial impacts of the changes the Maryland public school districts implement will help policymakers determine barriers to the goal as well as identify variables that can accelerate certifications or apprenticeships in public schools that can ultimately help provide opportunities for upward mobility for students in high poverty groups.

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

MLDS Center data provides the opportunity to observe students in the broader context of their past academic experiences (e.g. middle school course-taking as well as all four years of high school course-taking in MD schools), as well as employment within and across districts and other workforce sectors. The data necessary include K-12 staffing (workforce), K-12 student files, postsecondary degree and enrollment files, and workforce sectors from Labor. Additionally, Apprenticeship data, Adult Education data, and Workforce Training data will help point to whether CTE students extend their education beyond high school before entering the labor market (or concurrent to entering the labor market). This could also include TAM programs to see if students end up pursuing teaching careers in the state.

**Proposed Center Output**

A blueprint of where CTE programs are offered throughout the state could support lots of subsequent work at the MLDS. A final product could include a PowerBI map that can be posted with the MLDS Center dashboards to paint the picture of the geographic distribution of CTE in the state of Maryland.

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

The expected start date is December 1, 2023 with deliverables completed by May 31, 2024.

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

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1. A doctoral dissertation for a public policy student at UMBC
2. Publication as a policy study in outlets such as the Associate for Career & Technical Education, the Journal of Teacher Education or Educational Research.

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

<b>Does your project relate to one of the following areas which the General Assembly has specifically directed the MLDS to study:</b>	<b>Yes</b>	<b>No</b>
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?		
The impact of child welfare programs on the educational and economic outcomes of students?		
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>This study will address two particular sections of the MLDS Research Agenda:</p> <p>Pathways and Pipelines: Study of the entry, transition, and exit points students take into specific education, service and labor sectors. The focus of pathway and pipeline studies are typically descriptive to identify patterns rather than focus on causal relationships.</p> <p>Who are CTE concentrators and completers in MD public schools? Who completes workforce sequence training and apprenticeship programs?</p> <p>Program and Policy Evaluation: Program and policy evaluation is intended to determine whether a given program or policy has been successful. The evaluation may be used to improve program effectiveness, efficiency (distribution of costs and benefits), and/or equity and to inform policy or program changes (including reforming or discontinuing programs), program renewals and/or program expansions.</p> <p>Education Program Evaluation: Does CTE Program implementation in Maryland public schools allow opportunities for upward mobility to students in high poverty groups.</p> <p>Public Policy: Does the Maryland Youth Apprenticeship Program lead to employment in middle-skills jobs for high school graduates?</p>		
<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>		

<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

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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.

Student enrollment in CTE coursework toward becoming a high school concentrator and completer, including enrollment in MD Youth Apprenticeship Program jobs, is highly dependent on having academic structures in place within school systems and school houses that convey the importance of career readiness through CTE programming. Additionally, having CTE programs that are aligned to the local labor market demand provides support to “grow your own” workforce. Analysis of the data may show whether the CTE programming in school districts provide support or present barriers to growing the local labor market employees, particularly with regard to opportunities for upward mobility for students in high poverty groups.

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

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

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**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")

<input checked="" type="checkbox"/>	I will reimburse MLDS for all applicable fees.
<input type="checkbox"/>	I will only be able to provide partial reimbursement.
<input type="checkbox"/>	I will need a waiver.

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

<input type="checkbox"/>	This project has already received funding
<input type="checkbox"/>	I plan to apply or am in the process of applying for grant funding
<input checked="" type="checkbox"/>	No grant funding is planned

**Name of Grantor**

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

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

**Grant Application Date**

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

Yes

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

No

**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.**

**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.**

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

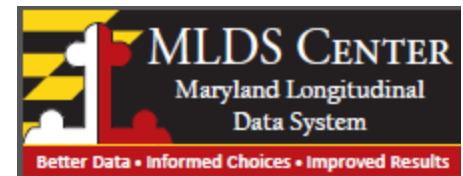
**Please also upload (with this form) any letters of support from the subject (i.e. school system or university) of the study.**

**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)
Jennifer Filosa	PI	Yes
Jane Arnold Lincove	Advisor	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 #
Maryland's Promise Scholarship and pathways into college and the workforce	

### Section 1. Principal Investigator

<b>Principal Investigator (please list additional project team members in Section 7)</b>
<a href="#">Catherine Mata Hidalgo</a>
<b>Principal Investigator's Email Address and Phone Number</b>
<a href="mailto:catherine_mata@brown.edu">catherine_mata@brown.edu</a>
<b>Name of University or Organization</b>
Brown University
<b>Principal Investigator Background and Qualification (provide overview of experience and attach a CV)</b>
<p>Catherine Mata is a researcher affiliated with the MLDS Center and has coauthored two MLDS research reports on the postsecondary effects of Bridge and the effects of Maryland's school discipline ban. Dr. Mata is currently employed at the Annenberg Institute at Brown University as a Postdoctoral Research Associate. She is an applied microeconomist, with a focus on the economics of education, labor markets, and economic development. Her research interests include the evaluation of policies affecting transitions from high school to college and into the labor market. Dr. Mata's work involves conducting experimental and quasi-experimental studies aimed at understanding the causal effects of policies designed to improve the educational and labor market outcomes of historically disadvantaged populations.</p>

### Section 2. Project Information

<b>Abstract or Brief Description of Proposed Project (no more than 1,500 words)</b>
<p>The purpose of this project is to study the effects of the Maryland Community College Promise scholarship on recipients' education and workforce outcomes.</p> <p>Community colleges play an important role in higher education in Maryland. At least 40 percent of high school graduates in the state enroll in a community college after graduation (MLDS Center, 2023a). Community colleges serve a proportion of historically underserved students. In particular, Maryland high school graduates who received free or reduced-price lunch (FARMS in Maryland) are more likely to stay in-state and enroll in community colleges than non-FARMS students (MLDS Center, 2023b). About 50 percent of Hispanic students attending a higher education institution start at a community college (MLDS Center, 2023c). Further, returns to community college are high in the labor market of Maryland (MLDS Center, 2020).</p> <p>Community colleges historically have demonstrated the capacity to absorb large inflows of students and offer them sizeable labor market returns (Marcotte, 2019; Belfield &amp; Bailey, 2011; Marcotte et al., 2005; Kane &amp; Rouse, 1999). Most students who enter a community college in Maryland are either employed or have transferred to a 4-year institution three years after entering college (MLDS Center,</p>

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2020). Additionally, community college graduates are more likely to remain in Maryland after graduation than bachelor's degree recipients (MLDS Center, 2020; Randall, 2000).

While cost remains a barrier to access and success in postsecondary education, and large shares of community college students rely on financial aid, particularly Pell Grants, community colleges provide educational opportunities that tend to be more affordable than four-year college programs (Long, 2010; Park & Scott-Clayton, 2018). Therefore, it is perhaps unsurprising that making community college free has been at the center of policy attention for over a decade (Denning, 2017). More recently, a number of states introduced financial aid programs to attend local community colleges (Gurantz, 2020).

The Maryland Community College Promise Scholarship (Promise) offers up to \$5,000 to those who enroll at any community college in Maryland, conditional on meeting academic and financial eligibility criteria. By implementing the Promise, Maryland joined the multitude of states providing place-based college scholarships to promote college attendance (Billings et al., 2021; Iriti et al., 2018; Swinburn et al., 2004). In the post-pandemic time of soaring inflation and college costs, such place-based scholarships have a deeper and more meaningful role for local communities. Even prior to the pandemic, these scholarships held great importance, as college education has long been unaffordable for low and middle-income families, resulting in widening socioeconomic, racial, ethnic, and gender disparities in college enrollment and graduation rates (Bailey & Dynarski, 2011; Dynarski et al., 2022; Goldin et al., 2006; Turner, 2018).

To date, no research has evaluated Maryland's Promise. However, there is an emerging body of empirical literature that documents the impact of place-based scholarships suggesting that place-based scholarships can enhance college enrollment and degree attainment at least in some contexts and for some student subgroups (Bartik et al., 2021; Bell & Gándara, 2021; Billings, 2018; Bueno et al., 2022; Carruthers et al., 2020; Corral, 2019; Swanson & Ritter, 2020; Swanson et al., 2020; Witzgen, 2019; Zumeta & Huntington-Klein, 2020). Evidence from evaluations of other programs may not generalize to Maryland's Promise as place-based scholarships vary along multiple characteristics, including funding generosity, criteria for eligibility and renewal, and the context in which they operate. For instance, Maryland's Promise provides financial aid but does not offer any other non-financial supports, which may have implications for its effectiveness, particularly for persistence and degree attainment. Therefore, evaluating the impact of the Promise scholarship will enable policymakers, educational institutions, and stakeholders to make informed decisions regarding policy and program development based on a comprehensive understanding of its effectiveness in increasing college access and reducing disparities among low and middle-income students in Maryland.

**Research Project Question**

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

Our research approach will be summative and progress as the program matures and more data become available. In the first stage, we will use descriptive analysis to characterize students who are recipients of the Promise scholarship in Maryland. This includes tracing and understanding their academic and postsecondary pathways in Maryland. We are interested in understanding the preparedness of Promise students who enroll in community colleges in Maryland, knowing that their preparedness will help contextualize the findings regarding postsecondary completion.

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In a subsequent stage, our research approach will be focused on evaluating whether Promise recipients have better postsecondary outcomes than similar students who either did not receive the Promise scholarship or are recipients of a different financial aid program. We plan to use regression analyses and econometric methods such as regression discontinuity (RD) and matching to address the research questions.

In the RD approach, we will use GPA cutoffs for Promise eligibility as the running variable. The comparison group will consist of students ineligible for the Promise. An essential assumption for RD designs is that individuals cannot manipulate their assignment variable values around the cutoff. In the Maryland Promise context, students should not be able to strategically place themselves above or below the eligibility cutoff in terms of GPA. RD estimates will represent local average treatment effects (LATE) and apply primarily to those immediately around the eligibility cutoff.

Further, we will employ matching techniques to estimate the average treatment effects by comparing Promise recipients with non-recipients. We will use different approaches, such as coarsened exact matching and propensity score matching, to select the comparison group that matches the treatment group on a rich set of covariates in the MLDS data. The main assumption of the matching techniques is that there is no selection bias based on unobserved characteristics.

Our choice of methods will be guided by a thorough exploration of the data and a rigorous assessment of whether the assumptions for each approach hold. It is also likely that we will use both methods to strengthen the robustness of our causal conclusions.

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

This research on the Maryland Promise Scholarship benefits the state of Maryland in several ways. First, it allows Maryland policymakers and educational institutions to assess the scholarship program's efficacy in promoting access to higher education and its impact on educational outcomes. This information can be used to make data-driven decisions to improve and fine-tune the program, ensuring that it continues to serve its intended purpose efficiently. Next, the findings can help Maryland's educational institutions tailor their support services to assist Promise recipients better, ultimately increasing student success rates and bolstering the state's educational system. Finally, the research can shed light on the economic benefits of the scholarship by examining how it contributes to a more educated workforce, potentially supporting businesses and industries that require a skilled workforce in the state.

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

This research requires longitudinal cross-sector data because it aims to comprehensively examine the role of the Maryland Promise scholarship in students' transitions from K-12 to postsecondary education and into the workforce. In other words, we need longitudinal data to study the students' journeys through college and into the labor market and cross-sector data to study the students' outcomes in these three sectors (K-12, higher education, and the workforce). The data we need to respond to the research questions will include information on student's PK12 performance to account for academic readiness, socio-demographics to study variation in the pathways observed and account for student's background differences, college-level information for both 2-year and 4-year institutions, and information from the labor market.

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<b>Proposed Center Output</b>
<p>All research processes will be accompanied by consultations with key stakeholders in the State of Maryland. First and foremost, we want to ensure that these are the right questions. Furthermore, our research aims to inform policymakers and help the state make informed decisions in the pursuit of better opportunities for all Marylanders. The partnership with the MLDS Center would allow us to work closely with Maryland stakeholders in order to meet regularly about initial results, interpretation, and next steps.</p> <p>If funded, this work will begin in Spring 2025 and extend through Fall 2028 and produce the following:</p> <ol style="list-style-type: none"><li>1) A research presentation at the MLDS Center Research series</li><li>2) A policy brief for the MLDS Center website</li><li>3) A working paper for the MLDS Center website</li></ol>
<b>Timeline for the proposed project (identify major deliverables and approximate dates)</b>
<p>The proposed 5-year timeline is outlined below.</p> <p>Year 1 ( )</p> <ul style="list-style-type: none"><li>● Proposal development, including securing data access</li><li>● Data cleaning and coding to prepare for analysis</li><li>● Grant applications for funding the research</li></ul> <p>Year 2 ( )</p> <ul style="list-style-type: none"><li>● Analysis of postsecondary readiness and access</li><li>● Initial findings and interim report</li></ul> <p>Year 3 ( )</p> <ul style="list-style-type: none"><li>● Analysis of postsecondary completion</li></ul> <p>Year 4 ( )</p> <ul style="list-style-type: none"><li>● Analysis of workforce outcomes</li><li>● Presentation at the MLDS Center Research Series</li></ul> <p>Year 5 ( )</p> <ul style="list-style-type: none"><li>● Writing up of research results</li><li>● Policy brief for the MLDS Center website</li><li>● Working paper for the MLDS Center website</li><li>● Dissemination of results through reports, presentations, and academic publications</li></ul> <p><i>Note:</i> This timeline is approximate and may vary depending on the complexity of the research and external factors such as data access and grant application timelines.</p>
<b>Plans for further development (i.e. journal submission, etc)</b>
<p>We will take a multi-pronged approach for further development and dissemination, aiming to reach multiple audiences. First, we will produce at least one working paper to report on our findings. We will make this working paper publicly available through the Annenberg Institute at Brown University EdWorking Papers series. We will aim to publish this article in peer-reviewed journals focused on education policy or public policy (e.g., Education Finance and Policy, Economics of Education Review, Journal of Policy Analysis and Management, Journal of Research on Educational Effectiveness).</p> <p>Second, we anticipate presenting this work at annual professional society conferences (such as those hosted by the American Educational Research Association, the Association for Education Finance and Policy, and the Association for Public Policy Analysis and Management).</p>

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**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?		No
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.	Yes	
<b>Research Agenda Category (page 2 of the <a href="#">Research Agenda</a>) – Which category does the project address? Please explain.</b>		
<p>This project aligns well with multiple categories within the MLDS Center's research agenda. First, it falls under the "Pathways &amp; Pipelines" category as it investigates the entry, transition, and exit points that students experience within the education system, with a particular focus on their progression from K-12 to postsecondary education and into the labor market. Second, the proposal is firmly rooted in the "Educational, Service &amp; Workforce Outcomes" category, given its exploration of student-level characteristics and their role in predicting both the Promise receipt and college and labor market outcomes. Finally, the proposal also aligns with the "Program &amp; Policy Evaluations" category as the study aims to assess the effectiveness of the Maryland Promise program in improving college access and success and, ultimately, the labor market outcomes for its recipients.</p>		
<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 project addresses the three themes in the MLDS Center's research agenda as follows.</p> <p><b>Theme 1: Supports &amp; Barriers.</b> By studying the Maryland Promise, the proposed study focuses on the supports and barriers within Maryland's educational landscape. The Promise is a financial aid program explicitly created as a support to overcome structural and administrative barriers that often hinder progression from K-12 to postsecondary education and limit labor market opportunities. Through the proposed comprehensive analyses, the study aims to uncover how effectively the Maryland Promise addresses these barriers and supports students in their educational journeys.</p> <p><b>Theme 2: Social Determinants.</b> The study will explore the role that broader social determinants play in the receipt of the Maryland Promise and, subsequently, the educational and workforce trajectories of the Promise scholarship recipients. Specifically, we will examine the socioeconomic and demographic characteristics that are predictive of the students being selected to receive the Maryland Promise. We will also explore how the effects of receiving the Promise on higher education and workforce outcomes differ by economic status and other sociodemographic characteristics.</p> <p><b>Equity &amp; Inclusion:</b> The project embraces the theme of equity and inclusion by exploring how the Maryland Promise affects higher education and labor market outcomes of non-white and low-income</p>		

<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

## Project Approval - Detailed Application

students. By focusing on these students who have historically been underrepresented in educational and post-college career pathways, the research aims to assess the extent to which Maryland Promise contributes to greater equity and inclusion within the educational and workforce landscapes.

**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	X
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

**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; text-align: center;">X</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></td> <td>I will need a waiver.</td> </tr> </table>	X	I will reimburse MLDS for all applicable fees.		I will only able to provide partial reimbursement.		I will need a waiver.	
X	I will reimburse MLDS for all applicable fees.						
	I will only able to provide partial reimbursement.						
	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 style="text-align: center;">X</td> <td>I plan to apply or am in the process of applying for grant funding</td> </tr> <tr> <td></td> <td>No grant funding is planned</td> </tr> </table>		This project has already received funding	X	I plan to apply or am in the process of applying for grant funding		No grant funding is planned	
	This project has already received funding						
X	I plan to apply or am in the process of applying for grant funding						
	No grant funding is planned						
<p><b>Name of Grantor</b></p>							
<p>American Educational Research Association (AERA).</p> <p>Note: We will also apply for additional funding to support the research team during the period of the project. The potential funding sources we identified preliminarily include the Spencer Foundation, the William T. Grant Foundation, and the US Department of Education's Institute for Education Sciences. These funders' grant programs support research that builds empirical evidence about programs, policies, and practices for improving community college students' persistence and graduation.</p>							
<p><b>RFP or Grant Program Information (you may provide a link to the grantor's website)</b></p>							
<p>AERA Research Grants:  <a href="https://www.aera.net/Professional-Opportunities-Funding/AERA-Funding-Opportunities/Grants-Program/Research-Grants">https://www.aera.net/Professional-Opportunities-Funding/AERA-Funding-Opportunities/Grants-Program/Research-Grants</a></p>							
<p><b>Amount of grant funds sought or awarded.</b></p>							
<p>\$25,000 - \$35,000</p>							
<p><b>Grant Application Date</b></p>							
<p>Summer 2024</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>No</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.**

Dr. Mata has more than four years of experience working with the Maryland Longitudinal Data Center (MLDSC). This will be Catherine’s fourth research project using MLDSC data. Being a UMBC graduate, Catherine is also familiar with the policy context of the State that was her home for the last seven years.

**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.**

The Principal Investigator is aware of the MLDS Center’s data suppression policy. Our findings will always be reported in aggregated terms to ensure the anonymity of individuals. If groups of students are studied to understand the heterogeneous effects of the program, these results will only be reported if the sample size is sufficient to prevent individual identification by the reader. In cases where it is strictly necessary to report on a group, but this group has a small number of members, then we will follow the guidelines of the MLDSC data suppression policy to avoid any possibility of reverse calculating the data to obtain identifying information.

**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.**

Not applicable.

**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)
Jane Lincove	Co-investigator	Yes
Aizat Nurshatayeva	Co-investigator	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.