MLDS Center External Research Application

External Research Applicants are required to submit a Research Proposal Summary using this form. The summary covers the most frequently asked questions from the MLDS Governing Board, Research and Policy Advisory Board (RPB), and MLDS Center Staff.

Email address *

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Research Applicant Name

Dr. David Blazar

Organization

University of Maryland College Park

Phone Number

617-549-8909

Researcher Information

Please provide information about the Research Applicant's background, other relevant research, and related interests.

Research Applicant Background and Qualifications

Dr. Blazar is a member of the MLDS research team. He is an Assistant Professor of Education Policy and Economics at the University of Maryland College Park. He received his doctorate in Quantitative Policy Analysis in Education (focus in economics) at the Harvard Graduate School of Education.

Does your project include additional Research Applicants?

- [ ] Yes. If so, please upload CV for all Research Applicants.
- [x] No

Proposed Project

Project Title

Modeling the Supply of Minority Teachers

Abstract or Brief Description

This research proposal seeks to extend research on minority teacher-student matches and build an empirical model of minority teacher supply, with the goal of informing policies to increase teacher diversity; provide new opportunities for racial, ethnic, and language minority students to work with a teacher like them; and increasing educational and life outcomes of disadvantaged groups.

Over the last decade, a compelling line of research has shown that a promising way to improve the educational and life outcomes of black and other racial/ethnic minority students is to provide opportunities to learn from a teacher like them. The “teacher like me” literature has led many in the education profession to call for increased diversity in the teacher workforce, particularly in geographic areas that serve large populations of racial or ethnic minorities, or immigrants. However, increasing teacher diversity is complex, in large part because the teacher “pipeline” itself -- consisting of multiple stages including recruitment, placement, evaluation, development, and retention -- is inherently multifaceted. This proposal seeks to fill a critical gap in the teacher diversity literature: understanding and building a model of minority teacher supply. I ask: What are the key determinants -- from primary school through college -- of minority individuals’ probability of entering the teaching profession?
Because almost all of the research on teacher diversity to date focuses on current teachers or those in close proximity to the profession, little is known about how minority students’ propensity to go into the teaching profession develops over the life cycle, and in response to social and environmental factors. Further, given that large increases in teacher diversity are needed, I hypothesize that recruitment of prospective minority teachers cannot wait until college or the workforce; instead, it likely starts at the beginning of school.

Research Project Question

What are the key determinants -- from primary school through college -- of minority individuals’ probability of entering the teaching profession?

Select one or more MLDS Research Agenda Questions

- [ ] 1. What is the impact of early childhood education experiences and programs on children's school readiness and K-12 outcomes?
- [x] 2. Are Maryland students academically prepared to enter postsecondary institutions and complete their programs in a timely manner?
- [ ] 3. What percentage of Maryland high school exiters go on to enroll in Maryland postsecondary education?
- [ ] 4. What percentage of Maryland high school exiters entering college are assessed to need to take developmental courses and in what content areas?
- [ ] 5. Which financial aid programs are most effective in improving access and success (i.e., retention and graduation) for Maryland students?
- [ ] 6. Assess the need for inclusion of online education data.
- [ ] 7. How likely are students placed in developmental courses to persist in postsecondary education and transfer and/or graduate?
- [ ] 8. Are community college students able to transfer within the state to 4-year institutions successfully and without loss of credit?
- [ ] 9. What are the differences in performance, retention, and graduation, including time to degree, of students who initially matriculate at a Maryland community college and transfer to a Maryland 4-year institution versus those who initially matriculate at a Maryland 4-year?
- [ ] 10. What are the differences in performance, retention and graduation, including time to degree, of students beginning in dual enrollment programs, at 2-year institutions and at 4-year institutions?
- [ ] 11. What are the characteristics of 2-year institutions that are allowing students to persist most effectively and either graduate or transfer?
- [ ] 12. Which 4-year institutions are graduating students most effectively and in the timeliest fashion?
- [ ] 13. What happens to students who start at community colleges and do not go on to 4-year institutions?
- [ ] 14. What are the educational and labor market outcomes for individuals who use federal

and state resources to obtain training at community colleges or other postsecondary institutions?

- [ ] 15. What economic value do noncredit community college credentials have in the workplace?
- [x] 16. Are exiters of Maryland colleges successful in the workforce?
- [ ] 17. Assess STEM post-graduate student state and regional job acceptance and retention.
- [ ] 18. Assess training and retention of early childhood workforce in Maryland.
- [ ] 19. What are the workforce outcomes for Maryland students who earn a high school diploma (via high school graduation or GED®) but do not transition to postsecondary education or training?
- [ ] 20. What are the workforce outcomes for Maryland high school students who complete Career Technical Education coursework, who either enter the workforce directly or also obtain postsecondary education or training?
- [ ] 21. What are the workforce outcomes of Maryland high school non-completers?

Explanation of Cross-Sector

This project focuses on (a) K-12 education and (b) workforce (i.e., teachers).

Please describe how the proposed research will inform choices to improve student and workforce outcomes in the State of Maryland. Consider including implications such as broadening the participation of underrepresented groups (e.g. gender, ethnicity, geographic, etc.), enhancing the infrastructure for research and education, and benefiting and/or informing educational policy and practice.

Benefit to the State of Maryland

This project will benefit the State of Maryland in at least two ways:
(1) Support future research using advanced statistical analyses, including impact evaluations of program efficacy.
(2) Inform the development and implementation of future teacher-oriented policies and practices to improve education for Maryland teachers and students.

Estimated Timeline for the Proposed Project

Two years

Available Resources

Please provide information on funding for this project.

Is this project supported through grant funds? *

- [ ] Yes, grant funds have already been secured for this project.
- [ ] Yes, I have applied to receive grant funds for this project.
- [x] Yes, I plan to apply for grant funds for this project.
- [ ] No ,there are no grant funds and no plans to apply for grant funds in support of this project.

Grant Funding

If you replied "Yes" above, please complete the following information about the grant funding.

Provide the name of the grantor:

Spencer and/or Russell Sage Foundations

Provide information on the RFP or the grant program description. A link to the RFP or grant program may be included below.

https://naeducation.org/naedspencer-postdoctoral-fellowship-program/

The National Academy of Education/Spencer Postdoctoral Fellowship Program supports 30 early career scholars working in critical areas of education research. These $70,000 fellowships support non-residential postdoctoral proposals that make significant scholarly contributions to the field of education. The program also develops the careers of its recipients through professional development activities involving National Academy of Education members.

http://www.russellsage.org/research/categories/requests-proposals

The Russell Sage Foundation is an operating foundation dedicated to programs of social science research. RSF's newest program on Race, Ethnicity, and Immigration supports research on the social, economic, and political effects of the changing racial and ethnic composition of the U.S. population, including the transformation of communities and ideas about what it means to be American. We are especially interested in innovative research that examines the roles of race, ethnicity, nativity, and legal status in outcomes for immigrants, U.S.-born racial and ethnic minorities, and native-born whites.

RFP or Grant Program Information

Provide the amount of funds sought/awarded:

Likely $70,000

Provide the date you applied or plan to apply for the grant:

November 2018

Do you need (or anticipate needing) the Center to provide a letter of support for your grant application?

- [x] Yes
- [ ] No
- [ ] Other:

If you have not yet been awarded a grant, do you intend to do this project if grant funds cannot be secured?

- [x] Yes
- [ ] No

Please describe any other type of funding you may be using to support this project.

RA time, supported by UMD

Proposed Center Output and Further Development

Please provide a description of the proposed Center Output to be completed as part of this work. Additionally, please provide your plans for further development of the Center output. Be sure to include possible publications and presentations in your description. Further developed work occurs after System access is terminated and may only use aggregate, de-identified data that was developed as part of the Center output.

Description of the proposed Center Output

White paper to be posted on MLDS website, as well as research seminar.

Plans for further development

Supporting Documents

Curriculum Vitae for Research Applicants

Blazar_CV - David ...

Formal Research Proposal

Blazar_Minority Te...

Data Request Template

IRB Approval and Completed Trainings

A Model of Minority Teacher Supply:

Increasing Educational Opportunity for Racial- and Ethnic-Minority Students

David Blazar

University of Maryland College Park

This proposal seeks to extend research on racial- and ethnic-minority teacher-student matches and build an empirical model of minority teacher supply, with the goal of informing policies to increase teacher diversity, provide new opportunities for racial and ethnic minority students to work with a teacher like them, and increase educational and life outcomes of disadvantaged groups.

Conceptual Framework

This project proposal is grounded in a large body of research on inequality in the U.S. that goes back at least to the 1960s (Coleman et al., 1966; Jencks et al., 1972). Much of this work has focused on the education sector, where researchers have documented large and persistent gaps in academic performance between black versus white students (Fryer & Levitt, 2004; Jencks & Phillips, 2011) and Latino versus non-Latino students (Reardon & Galindo, 2009), as well as disparities in access to educational resources including high-quality teachers (Clotfelter et al., 2006).

Over the last decade, a compelling line of research has shown that a promising way to improve the educational and life outcomes of black and other racial- and ethnic-minority students is to provide opportunities to learn from a teacher like them. Black and Latino students who have a teacher of the same race or ethnicity not only have improved test score performance relative to their peers with a white teacher (Dee, 2004; Egalite et al., 2015) but also are less likely to perceived as disruptive and inattentive (Dee, 2005), or be suspended from school (Lindsay & Hart, 2017). Assignment to same-race teachers also can have long-run impacts, including increasing the probability of graduating from high school and attending college (Gershenson, Hart, Lindsay, & Papageorge, 2017). These findings suggest that strategic hiring and assignment of minority teachers will play a critical role in improving student outcomes and

rectifying the biased nature of school policies that many argue result in a "school-to-prison pipeline" (Wald & Losen, 2003).

The "teacher like me" literature has led practitioners and policymakers to call for increased diversity in the teacher workforce, particularly in geographic areas that serve large populations of racial or ethnic minorities, or immigrants (Ladson-Billings, 2005; Putnam, Hansen, Walsh, & Quintero, 2016). In Maryland, which is the setting of the proposed study, an ongoing Governor-appointed *Commission on Innovation and Excellence in Education* has recommended that, "School leaders...reflect the diversity of the student population and, through their training as both teachers and leaders, provide culturally relevant instructional techniques and leadership in their schools."[1] Clearly, demand for racial-, ethnic-, and language-minority teachers is high.

However, increasing teacher diversity is complex, in large part because the teacher "pipeline" itself -- consisting of multiple stages including recruitment, placement, evaluation, development, and retention -- is inherently multifaceted (Kirby, Berends, & Naftel, 1999; Putnam et al., 2016).[2] To date, a healthy body of research has examined "leaks" in the teacher pipeline, focusing in particular on comparing turnover rates of minority versus non-minority teachers (Ingersoll, May & Collins, 2017), considering barriers to entry into the profession for minority teacher candidates (Goldhaber & Hansen, 2010), and, to a smaller degree, proposing opportunities to move school-based minority staff such as paraprofessionals into full-time teaching positions (Villegas & Clewell, 1998). While this descriptive work identifies some possible areas of intervention, though, researchers are skeptical that any one

[1] The Commission is in the process of making its final recommendations for the State. An initial report can be found here: https://msa.maryland.gov/megafile/msa/speccol/sc5300/sc5339/000113/022600/022621/20180174e.pdf

[2] In Maryland, a working group on teacher diversity mandated by the Maryland General Assembly has recommended that the state take a multi-pronged approach, including: (a) examining current regulations, policies and procedures in the state certification and licensing process to determine if any present barriers exist and how they might be addressed to enhance the recruitment of minorities into the teaching profession; (b) use recruitment strategies that include support systems for minority teachers; (c) provide financial incentives that make a difference in the life of a newly recruited minority teacher; (d) expand current high school programs such as the Teacher Academy of Maryland, increase enrollment in the Future Educators Association which exists at both middle and high schools, and enhance business partnerships through the Maryland Business Roundtable or other similar organizations which can showcase minority teachers and the teaching profession. For the text of the report, see: http://dlslibrary.state.md.us/publications/Exec/MSDE/SB548Ch286_2013.pdf

approach on its own will be sufficient to build a large supply of minority teachers (Lindsay, Blom, & Tilsley, 2017; Putnam et al., 2016).

Directions for Research: Questions and Hypotheses

This proposal seeks to fill a critical gap in the teacher diversity literature: ***understanding and building a model of racial- and ethnic-minority teacher supply***. I ask: ***What are the key determinants -- from primary school through college -- of racial- and ethnic-minority individuals' likelihood of entering the teaching profession?***

Because almost all of the research on teacher diversity to date focuses on current teachers or those in close proximity to the profession, little is known about how minority students' propensity to go into teaching develops over the life cycle, and in response to environmental, developmental, and economic factors. Further, given that large increases in teacher diversity are needed (Lindsay et al., 2017)[3], I hypothesize that recruitment of prospective minority teachers cannot wait until college or the workforce; instead, it likely starts at the beginning of school.

To develop a model of minority teacher supply mapped across the early life cycle, I will draw on multiple theoretical literatures and disciplinary perspectives describing factors influencing minority individuals' decisions on whether or not to teach. Interviews with and descriptive data on pre- or in-service minority teachers (Gordon, 1994; Su, 1996) reveal three categories of likely influences on minority teacher supply: (1) ***environmental influences*** including experiences in school and access to educational resources; (2) ***developmental influences*** including access to role models and academic preparation; and (3) ***economic influences*** including pay and status of the teaching profession relative to other labor market options.

[3] In Maryland, minority student population grew substantially between 1990 and 2010. In 1990, over 60% of the student population in Maryland was white, compared to 43.6% in 2010 and 38.2% in 2017. While the pool of teacher candidates in the state also has become more diverse over time -- from 17% minority candidates in 2011-12 to 20% in 2014-15 -- these patterns are insufficient to match the increasing diversity of the student population.. Data come from State-provided data dashboards: http://reportcard.msde.maryland.gov/Demographics.aspx?K=99AAAA&WDATA=state

I will test the predictive power of these factors using rich longitudinal data from Maryland that follows students from K-12 education settings, through college (including teacher-training programs), and into the workforce.

Methods

Data

Data come from the Maryland Longitudinal Data System (MLDS) Center, designed to link and house data across three state agencies -- Maryland State Department of Education (MSDE), Maryland Higher Education Commission (MHEC), and Department of Labor, Licensing, and Regulation (DLLR) -- and to support cross-sector analyses. Data currently housed at MLDS track students and employees in the state from the 2007-08 school year through 2017-18. I am in the process of negotiating agreements for K-12 education data beginning as early as the 2000-01 school year.[4] Together, these data allow me to track students for up to 18 years, from primary school, through high school and college, and into the workforce. All data are linked and de-identified by analysts at MLDS. Data are provided to the core research team -- of which I am a member -- through a virtual private network (VPN).

I define two outcome measures -- capturing individuals' (likely) entry into the teaching profession -- from data provided by the latter two State agencies. First, MHEC and related data from the National Student Clearinghouse (NSC) provide an indicator for majoring in teaching (or a related degree program), which can be linked to K-12 education data for all individuals who were observed as public school students in Maryland at some point in my data panel. Second, wage data from DLLR allow me to capture whether or not an individual was employed as a public or private school teacher. Wage data are

[4] MSDE already has provided MLDS with data -- e.g., student enrollment and demographics, test scores, course files, teacher characteristics -- from the 2007-08 school year through 2017-18 for all local education agencies (LEAs) in the state. Several LEAs are in the process of negotiating agreements with MLDS to share the same data provided over a longer period of time, likely extending back to the 2000-01 school year. These agencies include: Baltimore City Public Schools (research and data team has provided a verbal agreement to provide these data), Baltimore County Public School (data request under review), Montgomery County Public Schools (data request under review), and Prince George's County Public Schools (data request under review). Together, these four of 24 total LEAs in Maryland make up over 50% of the student population in the state.

restricted to those individuals who are observed in the education data (i.e., those students who graduated from a secondary or postsecondary school in or after the 2007-08 school year), and exclude wages for independent contractors and federal employees. While these two variables each have strengths and weakness -- namely, the former provides a proxy measure for going into teaching, while the latter is available for a subset of Maryland public school students -- together they provide robust information on minority individual's probability of entering the teaching profession.

My main predictors map onto the theoretical constructs that others (Gordon, 1994; Su, 1996) suggest are likely to influence minority individuals' decisions on whether or not to teach. To capture ***environmental influences*** related to students' experiences at school, I will use K-12 education data from MSDE to generate variables capturing school-level averages of demographic characteristics (i.e., race, ethnicity, free or reduced-price lunch status) and absences. The variables will be captured both at the primary and secondary level, providing a snapshot of the environments of students' schooling experiences. I also will capture information on students' access to advanced coursework, including indicators for whether or not students' middle or secondary school offered AP courses, IB courses, or "algebra for all" programs. Further, I will capture students' access to teacher training programs -- particularly those housed at a historically black college or university (HBCU) -- by calculating the distance between an individual's home or school and the closest postsecondary institution with a teacher training program, the percentage of non-white enrollees at that closest program, and the distance to the closest teacher training program at an HBCU.

Regarding ***developmental influences***, I will identify the number of years that students worked with a teacher "like them," as well as the estimated effectiveness of these and all other teachers. Teacher-student links come from course files provided by MSDE, as do demographic information (i.e., race/ethnicity) on students and teachers. I will estimate the effectiveness of students' teachers by calculating their "value-added" to math and reading test scores, and to student absences. Models that control for students' prior academic performance have been shown to provide unbiased estimates of the contribution of teachers to student outcomes (e.g., Blazar, 2018). Further, I will capture several academic

preparedness measures: end-of-year test scores in math and reading/English language arts, high school GPA, and SAT/ACT scores.

Finally, I will capture ***economic influences*** from the DLLR-provided wage data. Specifically, I will calculate average wages in teaching (likely a running average over the most recent five years), as well as average wages in professions populated by individuals with similar academic preparedness.

Analyses

First, I propose replicating and extending results from other teacher-student matching studies in the Maryland context. To do so, I will use a standard model of student production for student *i* working with teacher *j* in year *t*:

$$Y_{ijt} = \beta \textit{Teacher-Student Match}_{ijt} + \gamma X_{jt} + \lambda_i + \mu_{ijt} \quad (1)$$

I will predict a range of short-term student outcomes -- i.e., test scores in math and reading, and absences from school -- as a function of my main predictor, *Teacher-Student Match*, which indicates whether or not teacher and student are matched based on race or ethnicity.

The main threat to internal validity of this model is that students are not randomly assigned to teachers. It is entirely feasible that principals assign black students to black teachers strategically, which would bias estimates. Therefore, following Egalite et al (2015), I will include student fixed effects, λ_i, in the model, in order to hold constant all time-invariant characteristics of students, including race and ethnicity, that may be related to classroom assignments. In turn, I will exploit variation in teacher-student matches within students, over time. I also will control for a variety of teacher- and classroom-level variables, X_{jt}, including teacher experience and classroom composition, which could impact student outcomes aside from the characteristics of the teacher.

Like Gershenson et al (2017), I also am interested in the long-run effects of teacher-student matches, which provides a more complete picture about how identify formation in K-12 settings impacts minority individuals' participation and success in society and the workforce. Long-run outcomes captured in MLDS include: graduation from high school and enrollment in college (two outcomes examined by Gershenson et al), as well as college major, college completion, and wages (which have not been

examined in this literature). It is not possible to use the student fixed effects approach to estimate effects of teacher-student matches on these long-run outcomes, as these outcomes do not vary within students over time. Instead, I will use an instrumental variables approach described by Gershenson et al (2017), exploiting within-school, intertemporal variation in the proportion of minority teachers.

After examining the effect of teacher-student matches, I next will examine the factors that lead to or are associated with minority students' probability of entering the teaching profession -- a necessary step in order to build a sufficient supply of minority teachers to work with a growing population of minority students. Prior research suggests that role model effects (Gordon, 1994), in particular, may drive minority students who work with a teacher like them to enter the teaching profession later in life. I can test this hypothesis using the same approach described above, replacing as outcome measures indicators for majoring in teaching (from MHEC data) or working as a teacher in Maryland (from DLLR wage data). By using the instrumental variables designs described by Gershenson et al (2017), I can examine the causal effect of working with a teacher "like me" on racial- and ethnic-minority students' probability of entering the teaching profession later in life.

I hypothesize that *several* factors, including but not limited to role-model effects, may drive minority individuals to enter the teaching profession. To examine the predictive power of these myriad factors, I will develop a model that tests the probability that an individual, *i*, will enter the teaching profession by age 25 as a function of his or her race, ethnicity, and native language; the number of years in which this individual had a teacher like them; and the additional set of variables described above capturing environmental, developmental, and economic influences:

$$\textit{Enter Teaching}_{\text{it = age 25}} = \beta_1 \textit{Environmental Influences}_{\text{i}} + \beta_2 \textit{Developmental Influences}_{\text{i}} + \beta_3 \textit{Economic Influences}_{\text{i}} + \gamma X_{\text{it}} + \mu_{\text{ijt}} \qquad (2)$$

I will specify models that enter these categories of variables separately, and a model that includes all predictors together.

Because the aim of this project is to understand *multiple* factors that may influence minority teacher supply, it is more challenging to develop a model to support causal inferences. Models such as

equation (1) above only are able to draw causal conclusions by narrowing in on a small set of inputs. Instead, I aim to limit likely threats to internal validity by including a variety of observable characteristics related to individuals (e.g., socioeconomic status), the schools they attend (e.g., demographic composition), and the neighborhoods they live in (e.g., per-pupil expenditures, average educational attainment captured from census data); these characteristics are captured in the vector, X_{it}. I also will specify models that include district, neighborhood, or school fixed effects, leveraging variation between minority and non-minority students within these units and over time. This model will provide some of the first empirical evidence testing theories about minority individuals' propensity to enter teaching, and can guide future causal studies.

Use of state longitudinal data means that analyses will be **sufficiently powered** to detect short- and long-run effects, if in fact they exist in the population. Prior "teacher like me" studies have established effects on short-term outcomes as small as 0.01 SD (Egalite et al., 2015) and effects on long-run outcomes including the probability of graduating from high school and entering college as small as 2 percentage points (Gershenson et al., 2017). Setting power at 0.80 and alpha (i.e., Type I error rate) at 0.05, I would need roughly 1,000 individuals to detect effects of this magnitude. This sample size is reasonable in the MLDS data, which captures information on all public school students (roughly 900,000 per year) and teachers (roughly 60,000 per year). I will narrow this population to select cohorts that I can track into college or the workforce, which still will be well over the minimum threshold identified in power calculations.

Significance of the Work

To the Academy

The "teacher like me" line of research began in the early 2000s with two influential studies (Dee, 2004, 2005), and has grown substantially in recent years to: (a) examine the generalizability of early findings to additional contexts and students (Egalite et al., 2015); (b) consider outcomes beyond test scores (Lindsay & Hart, 2017); and (c) examine the impact on some long-term outcomes captured in education administrative data (Gershenson et al., 2017). My work will continue to grow this line of work

by considering the effect of teacher-student matches on racial- and ethnic-minority students across the state of Maryland. I also will examine the effect of teacher-student matches on long-run outcomes, including those captured in college and the workforce.

To Policy

While the "teacher like me" literature is consistent in its findings regarding the substantial impact that teacher-student matches can have on minority students, a second key finding from this work is the difficulty in finding sufficient matches given the growing population of racial- and ethnic-minority students and "leaks" at several stages of the teacher pipeline (Lindsay et al., 2017; Putnam et al., 2017). My work explores this challenge directly by developing a theoretically driven, empirical model of minority teacher supply. I hypothesize that policy efforts to recruit large cohorts of minority teachers to work with growing populations of minority students requires attention not just to individuals close to the teacher workforce (e.g., individuals in college considering career options, staff such as paraprofessionals already working in schools) but to the entire schooling career.

These findings will help identify areas of policy intervention for future cohorts of minority students and individuals. For example, if role model effects drive minority students into teaching, that would create additional pressure to invest heavily in re-assignment and re-distribution policies in the short term, and substantial recruitment efforts in the long term. Further, understanding the environmental and economic factors that influence minority students' likelihood of entering teaching would help identify specific recruitment activities (e.g., information on wages of teaching relative to other professions) and the timing in students' academic careers (e.g., elementary, middle, high school) when these activities may be most useful.

This study and subsequent findings respond very directly to calls from policymakers in Maryland regarding the need to build a large supply of minority teachers in the state (Kirwan, 2018), and will speak broadly to efforts to recruit minority individuals into the teaching profession across the United States.

To My Ongoing Research Agenda

Finally, this project will contribute to my ongoing research agenda aimed at leveraging teachers as a primary resource to reduce inequality and close opportunity gaps. To date, my published research has focused on identifying characteristics of effective teachers and effective teaching (e.g, Blazar, 2015; Blazar, 2018; Blazar & Kraft, 2017), the unequal distribution of teacher and teaching quality across schools and districts (e.g., Blazar, Litke, & Barmore, 2016), and the effect of policies such as standards and accountable on teacher quality (e.g., Blazar & Pollard, 2017).

It has become clear to me that any efforts to improve outcomes for disadvantaged students at scale -- which I see as *the most* important goal of education -- must address issues of race and ethnicity directly. The proposed project uses tools and methods developed in my prior work to do just this. I am committed to developing a long-term research agenda focused specifically on the needs of disadvantaged students, and the ways in which teachers can help improve the outcomes of students often held behind due to race or ethnicity.

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PROFESSIONAL EXPERIENCE

University of Maryland College Park
Assistant Professor of Education Policy and Economics, *College of Education* 2017 – present

Harvard University
Postdoctoral Research Fellow, *Graduate School of Education* 2016 – 2017
Lecturer in Education, *Graduate School of Education and Kennedy School of Government* 2016 – 2017
Teaching Fellow, *Graduate School of Education* 2012 – 2016
Advisor, *Teacher Education Program, Graduate School of Education* 2010 – 2011
Freshmen Proctor and Academic Advisor, *Harvard College* 2010 – 2017

High School for International Business and Finance, New York City Department of Education
9th – 12th grade English Language Arts 2006 – 2009

SELECTED AWARDS AND FELLOWSHIPS

Jean Flanigan Outstanding Dissertation Award, *Association for Education Finance and Policy* 2017
Dissertation Fellowship, *Mathematica Policy Research* 2015
Finalist for Spencer Dissertation Fellowship, *National Academy of Education* 2015
Emerging Education Policy Scholar, *Thomas B. Fordham Institute* 2015
Pforzheimer Fellowship for Public Service, *Harvard University* 2010, 2011

PUBLICATIONS

Peer-Reviewed Journal Articles

Kraft, M. A., & Blazar, D. (Forthcoming; online 2016). Improving teachers' practice across grades and subjects: Experimental evidence on individualized teacher coaching. *Educational Policy*.

Blazar, D., Braslow, D., Charalambous, C. Y., & Hill, H. C. (2017). Attending to general and mathematics-specific dimensions of teaching: Exploring factors across two observation instruments. *Educational Assessment, 22*(2), 71-94.

Blazar, D. & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational Evaluation and Policy Analysis, 39*(1), 146-170.

Lynch, K., Chin, M., & Blazar, D. (2017). Relationship between observations of elementary teacher mathematics instruction and student achievement: Exploring variability across districts. *American Journal of Education, 123*(4), 615-646.

Blazar, D., Litke, E., & Barmore, J. (2016). What does it mean to be ranked a "high" or "low" value-added teacher? Observing differences in instructional quality across districts. *American Educational Research Journal, 53*(2), 324-359.

Blazar, D. (2015). Effective teaching in elementary mathematics: Identifying classroom practices that support student achievement. *Economics of Education Review, 48*, 16-29.

Blazar, D. (2015). Grade assignments and the teacher pipeline: A low-cost lever to improve student achievement? *Educational Researcher, 44*(4), 213-227.

Blazar, D., & Kraft, M. A. (2015). Exploring mechanisms of effective teacher coaching: A tale of two cohorts from a randomized experiment. *Educational Evaluation and Policy Analysis, 37*(4), 542-566.

Hill, H. C., Blazar, D., & Lynch, K. (2015). Resources for teaching: Examining personal and institutional predictors of high-quality instruction. *AERA Open, 1*(4), 1-23.

Hill, H. C., Charalambous, C. Y., Blazar, D., McGinn, D., Beisiegel, M., Humez, A., Kraft, M., Litke, E., & Lynch, K. (2012). Validating arguments for observational instruments: Attending to multiple sources of variation. *Educational Assessment, 17*(2-3), 88-106.

Blazar, D. (2011). Using theatre to engage cultural identity: Implications for students and teachers. *English Education, 43*(3), 294-304.

Blazar, D. (2009). Self-discovery through character connections: Opening up to gayness in *Angels in America*. *English Journal, 98*(4), 77-84.

Papers Under Review

Blazar, D. Validating teacher effects on students' attitudes and behaviors: Evidence from random assignment of teachers to students (*Education Finance and Policy*, invited revise and resubmit).

Blazar, D., Gilbert, B., Herlihy, C., Gogolen, C. Exploring the potential for video-based classroom observations.

Blazar, D. & Pollard, C. Does test preparation mean low-quality instruction? (*Educational Researcher*, conditionally accepted).

Kraft, M. A., Blazar, D., & Hogan, D. The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. (*Review of Educational Research*, invited revise and resubmit).

Work in Progress

Blazar, D., Kane, T. J., & Thal, D. Does video technology improve the classroom observation process? Results from a randomized experiment.

Blazar, D., & Kraft, M. A. Teacher evaluation, instruction, and student achievement: Examining mechanisms to support school improvement.

Blazar, D., & Schueler, B. Why do districts matter? An interdisciplinary perspective.

Litke, E., Hill, H. C., Blazar, D., & Humez, A.. Examining high and low value-added mathematics instruction: Can expert observers tell the difference?

Other Articles

Blazar, D., & Kraft, M. A. (2016). Social and emotional skills in school: Pivoting from accountability to development. *Albert Shanker Institute Blog*.

RESEARCH FUNDING

Co-Principal Investigator. "Never Judge a Book by Its Cover," Bill and Melinda Gates Foundation with Principal Investigator Thomas J. Kane ($762,059; subcontract to University of Maryland $30,588). 2016 – 2018

Principal Investigator. "Validating Teacher Effects on Non-Tested Outcomes," Smith Richardson Foundation #20151018 with advisor Martin West ($50,000). 2016 – 2018

Principal Investigator. "Teacher and Teaching Effects on Students' Attitudes and Behaviors," Albert Shanker Institute ($2,000). 2015

Co-Principal Investigator. "Evaluating the MATCH Individualized Teacher Coaching Program," New Schools for New Orleans with Principal Investigator Matthew A. Kraft ($150,000). 2011 – 2015

CONFERENCE PRESENTATIONS

American Education Research Association (2013, 2014, 2015), *Association for Education Finance and Policy* (2013, 2014, 2015, 2016, 2017), *Association for Public Policy Analysis and Management* (2013, 2014, 2015, 2016), *Hawaii International Conference on Education* (2015), *Society for Research on Educational Effectiveness* (2015, 2017)

REFEREE SERVICE

AERA Open, American Educational Research Journal, Economics of Education Review, Educational Evaluation and Policy Analysis, Educational Researcher, Journal of Research on Educational Effectiveness