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**MATHEMATICA**  
Policy Research, Inc.

**An Evaluation of  
Secondary Math Teachers  
From Two Highly  
Selective Routes to  
Alternative Certification -  
Addendum**

*Part B: Supporting Statement  
for Paperwork Reduction Act  
Submission*

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Submitted to:

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## **PART B: SUPPORTING STATEMENT FOR PAPERWORK REDUCTION ACT SUBMISSION**

This package requests clearance for data collection activities to support a rigorous evaluation of secondary math teachers who have entered teaching through highly selective routes to alternative certification (HSAC). This evaluation is being conducted by the Institute of Education Sciences (IES), U.S. Department of Education (ED); it is being implemented by Mathematica Policy Research, Inc. (MPR) and its partners—Chesapeake Research Associates LLC and Branch Associates.

The objective of the evaluation is to estimate the impact on secondary student math achievement of teachers who obtain certification via HSAC routes compared with teachers who receive certification through traditional or less selective alternative certification routes. The evaluation design is an experiment in which the researchers will randomly assign secondary school students to a treatment or control group. The treatment group will be taught by an HSAC teacher and the control group will be taught by a non-HSAC teacher. Both teachers must teach the same math class at the same level under the same general conditions at the same school. We will compare student math achievement between the treatment and control groups to estimate the impact of HSAC teachers.

This is the second submission of a two-stage clearance request. The package was submitted in two stages because the study schedule required that district and school recruitment begin before all the data collection instruments were developed and tested. The first stage package requested approval for recruitment of schools, a teacher background form, a pilot of the student assessment, and the random assignment of students. In this package, we are requesting approval for:

- A teacher survey and collection of teacher contact information
- A teacher math content knowledge assessment—the Praxis math subject test—to be administered to teachers who were not required to take this test for certification
- A form for all teachers—whether they took the Praxis math subject test to obtain certification or just for this study—to provide consent for the Educational Testing Service (ETS) to release their scores on this assessment to the study team
- Parent/guardian consent forms for the administration of a math assessment to high school students and the collection of school records on middle and high school students
- Collection of school records data on student characteristics and scores on state or district math assessments
- A student math assessment and students’ assent for taking the assessment
- A protocol for semi-structured interviews of HSAC program administrators

This package provides a detailed discussion of the procedures for these data collection activities and copies of the forms and instruments.

## **B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS**

### **1. Respondent Universe and Sampling Methods**

The respondent universe for the study will consist of secondary school math teachers from two HSAC programs (Teach For America [TFA] and the Teaching Fellows programs and other similar programs affiliated with The New Teacher Project [TNTP]), non-HSAC teachers of the same courses in the same schools, and the students in these courses. The sample will be selected in four stages. MPR will (1) identify districts with TFA or TNTP secondary math teachers, (2) identify the schools within these districts that employ secondary math teachers from TFA or TNTP, (3) select at least one HSAC and one non-HSAC secondary math teacher who are teaching the same course in the same school, and (4) randomly assign students between the classrooms taught by HSAC and non-HSAC teachers and include all students in these classrooms in the research sample.

The study will include a total of 450 “classroom matches,” each match consisting of a math class taught by an HSAC teacher and one taught by a non-HSAC teacher in the 2009-2010 school year, for a total of at least 900 classrooms. All classes in the match must be for the same subject (for example, Algebra I), at the same level (for example, honors, remedial, or regular), and must be taught under the same circumstances (for example, English language learners must be evenly distributed across the classrooms rather than clustered with one teacher or the other). Furthermore, it must be possible for researchers to assign students randomly between classes in the match with no disruption to or involvement in school scheduling procedures; this will typically be the case when all sections of the match are taught concurrently.<sup>1</sup> The same teacher may be in more than one classroom match if he or she teaches more than one eligible class during the school day. Assuming each teacher in the sample teaches an average of three study classes, we anticipate a total sample of 150 HSAC teachers and 150 non-HSAC teachers. We anticipate that it will require the participation of approximately 112 schools in 20 districts. Assuming 20 students per classroom, the study will include approximately 18,000 students.

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<sup>1</sup> Alternatively, if the school assigns students to “teams” in which students take all courses together throughout the school day and the target course is taught by an HSAC teacher in one team and a non-HSAC teacher in the other team, students can be randomly assigned to teams regardless of whether the courses are taught concurrently, with no involvement in the school’s scheduling procedures.

## **2. Statistical Methods for Sample Selection and Degree of Accuracy Needed**

### **a. Sample Selection**

Ideally, we would randomly sample teachers from the entire universe of secondary school HSAC math teachers for the evaluation. Impact estimates would then generalize to all secondary school HSAC math teachers. However, random sampling is not possible because the evaluation will necessarily be limited to schools in which the experimental design is feasible—those with eligible classroom matches. Thus, we propose to draw a purposive sample designed to meet a specified statistical standard of precision. Although we will not be able to generalize to all HSAC math teachers, we will obtain valid estimates of the impacts of the set of HSAC math teachers who meet our eligibility requirements.

*Selection of School Districts.* Rosters from TFA and TNTP will indicate the districts that have hired teachers from these programs. Because we are collecting a purposive sample, we will not randomly sample these districts. Instead, we will prioritize our recruiting efforts to focus first on the districts with the most math teachers and later on the districts with fewer.

*Selection of Schools.* From the school districts selected, we will contact schools to participate in the study and to determine whether or not they anticipate having an eligible classroom match in the 2009-2010 school year.

*Selection of Teachers.* Teachers who teach a class in the classroom match will be included in the study. The teachers will be teaching math and include both HSAC and non-HSAC teachers. In each school, we will include as many eligible classroom matches as possible in order to maximize the statistical power of the study.

*Selection of Students.* All students signed up for classes in a classroom match and who can take an assessment (if in high school) will be included in the study sample. These students will be randomly assigned to either a classroom taught by an HSAC teacher or a classroom taught by a non-HSAC teacher within the match.

### **b. Estimation Procedures**

To estimate the impact of HSAC teachers on secondary student math achievement for the full evaluation, we will treat each classroom match as a separate “mini-experiment.” For each classroom match, we will compare the average outcome math assessment score of students randomly assigned to the class taught by the HSAC teacher to the average score of those assigned to the non-HSAC teacher—the difference in average scores will provide an estimate of the HSAC teacher’s impact in that particular classroom match. We will then average the impact estimates across all classroom matches in the study to come up with an overall estimate of the HSAC teachers’ impact on secondary student math achievement.

*Primary Impact Analysis.* Due to random assignment, the differences in mean outcomes in each classroom match will provide an unbiased estimate of the impact of HSAC teachers. However, the precision of the estimates can be improved by controlling for student-level baseline characteristics that may explain some of the differences in achievement, such as sex, race,

free/reduced price lunch eligibility, special education status, whether the student is an English language learner, and prior math achievement. We will therefore estimate the following model of student math achievement for student  $i$  in classroom match  $j$ :

$$(1) \quad Y_{ij} = P_j + X'_{ij}\beta + T'_{ij}\delta + \varepsilon_i$$

where  $Y_{ij}$  is the outcome math test score of student  $i$  in classroom match  $j$ ,  $P_j$  is a vector of classroom match indicators,  $X_{ij}$  is a vector of student-level baseline characteristics,  $T_{ij}$  is an indicator for whether the student was in the HSAC teacher's class in classroom match  $j$ ,  $\varepsilon_i$  is a random-error term that represents the influence of unobserved factors on the outcome, and  $\beta$  and  $\delta$  are vectors of parameters to be estimated. Because the randomization is done within classroom matches within schools, and schools may differ from each other in student compositions, the model includes a vector of classroom match indicators,  $P_j$ , to control for differences in the average student characteristics between classroom matches and schools. If a sufficient number of classroom matches contain three teachers instead of two, the estimated standard errors will account for clustering of students within classroom.

The vector  $\delta$  represents the experiment-level impacts of the HSAC teachers in each classroom match that can then be aggregated to estimate the overall HSAC impact. The simplest and perhaps most intuitively appealing way to aggregate these impacts is to calculate an equally weighted average of the classroom match-level impacts. In this way, each classroom match will have an equal influence on the overall impact estimate. As a specification check, we will also explore alternative weighting schemes that have the potential to provide greater statistical efficiency and test the robustness of the findings, including giving greater weight to more precisely estimated classroom match-level impacts and weighting proportionally to the size of the sample in each classroom match.

**Subgroup Analyses.** In addition to estimating the overall impact of HSAC teachers on secondary student math achievement, we will conduct a limited number of subgroup analyses. Specifically, we will separately estimate the impact of TFA and TNTP teachers, middle and high school HSAC teachers, and novice and experienced HSAC teachers. To calculate subgroup impacts, the classroom match-level impact estimates will be aggregated for each relevant subgroup. For example, to calculate the subgroup impacts for high school and middle school teachers, the impact estimates from experiments in high schools will be aggregated separately from those from the experiments in middle schools. While we will test the statistical significance of the impact for each subgroup, we will not test the significance of differences between subgroups (for instance, between TFA and TNTP teachers), as the sample will not provide adequate statistical power for these comparisons.

**Non-Experimental Analysis.** If we find that HSAC teachers are more effective than non-HSAC teachers, policymakers will want to understand the reasons they are more effective. To shed light on this, we will investigate whether there are particular observable teacher characteristics that are correlated with the impacts. Because the effects of the teacher characteristics cannot be separated from the HSAC recruiting model experimentally, we will rely on non-experimental methods for this exploratory analysis.

For the non-experimental analysis, we will estimate variations of Equation 1 that introduce within-experiment differences in teacher characteristics:

$$(2) \quad Y_{ij} = P_j + X'_{ij}\beta + T'_{ij}\delta + C'_{ij}\gamma + \varepsilon_i$$

where  $C_{ij}$  represents a vector of observable characteristics of student  $i$ 's teacher,  $\gamma$  is a vector of parameters to be estimated, and all other variables are defined as above. Since these models include classroom match-level fixed effects, the coefficients in vector  $\gamma$  represent the correlations between the within-match differences in teacher characteristics and the within-match differences in student outcomes. These exploratory analyses will be guided in large part by differences between HSAC and non-HSAC teachers that are observed through the teacher survey and that have been hypothesized to influence student achievement. For example, HSAC teachers are often perceived to be different from non-HSAC teachers in their subject knowledge, the selectivity of their undergraduate colleges, and their experience, all of which have been connected to student achievement in prior research (Clotfelter et al. 2007). Therefore, using data from the teacher survey and teacher math knowledge assessments (if the option is exercised), we will examine how the differences between the HSAC teachers and the non-HSAC teachers along these dimensions are correlated with student outcomes.

***Non-Response and Crossovers.*** Although, we will take steps to minimize the amount of missing data, some student non-response for this evaluation is inevitable. This non-response may lead to biased impact estimates if the non-response is correlated with math achievement and whether the student was assigned to an HSAC teacher. To address this, we will use propensity score matching and create non-response weights that appropriately weight those for whom we have outcome math test scores, so that the weighted sample of students with nonmissing data is representative of the full sample. In addition, some students who are assigned to an HSAC teacher may crossover into a class with a non-HSAC teacher or vice versa. Including crossover students might bias the impact estimates by attributing the performance of the HSAC teacher to a non-HSAC teacher and vice versa. We can adjust the estimates for these crossovers using the students' assignment status as an instrumental variable for having an HSAC teacher (Angrist et al. 1996).

### **c. Degree of Accuracy Needed**

The study is designed to achieve a minimum detectable effect (MDE) of 0.10 standard deviations in student math test scores. This target MDE is based on considerations of policy relevance and attainability, balanced against the costs of data collection. It is lower than MDEs from similar studies at the elementary school level because test score gains tend to be lower at the middle and high school levels. Estimates of average annual gains in effect sizes from nationally-normed math tests across grade levels presented by Hill et al. (2007) indicate that a 0.10 standard deviation effect of HSAC teachers on test scores would be equivalent to roughly a third of a year of schooling for children in grades 6-10, a policy-relevant effect by most standards. Furthermore, previous research has estimated effects of HSAC teachers as high as 0.11 standard deviations (Boyd et al. 2006; Kane et al. 2006), suggesting that an HSAC impact of 0.10 might be attainable.

Exhibit 1 displays MDE sizes for the full sample and for subgroups of teachers. The MDEs are based on an assumed sample of 112 schools, one-third providing four teachers for the study and the rest providing two teachers, for a total of 300 teachers (150 HSAC and 150 non-HSAC teachers). We assume each teacher on average teaches in three separate classroom matches, for a total of 450 classroom matches, or 900 classes. We further assume each class has an average of 20 students, for a total of 18,000 students.

For all calculations, we assume a 5 percent level of statistical significance and an 80 percent level of statistical power. Based on the previous experimental study of TFA (Decker et al. 2004), we assume a “crossover rate” (students switching from the treatment to the control classroom or vice versa) of 5 percent and a sample attrition rate of 10 percent. Also, consistent with the previous experimental TFA study, we assume a teacher-level intracluster correlation (ICC) of 0.15 to account for correlation of outcomes between teachers as well as a correlation between treatment and control group outcomes within a school of 0.50. We assume that control variables in the impact model—in particular baseline test scores—explain 50 percent of the variances in the test score outcome measure (that is,  $R^2 = 0.50$ ).

#### EXHIBIT 1

##### MINIMUM DETECTABLE EFFECT SIZES

Subgroup size	Minimum Detectable Effect	Sample Size (students/teachers)
100 percent (full sample)	0.10	18,000/300
75 percent	0.11	13,500/225
50 percent	0.14	9,000/150
30 percent	0.18	6,000/100

Note: The minimum detectable effects were calculated using the following formula:

$$2.486 * \sqrt{1 - R^2} * \sqrt{\frac{2\rho}{T} + \frac{2(1-\rho)}{N}}$$

where  $R^2$  (= .50) is the regression R-squared value estimated from previous studies,  $T$  is the number of treatment (control) group teachers,  $N$  is the total number of students in the treatment (control) group classrooms (assuming 20 students per class),  $\rho$  (= .15) is the between-classroom variance as a percentage of the total variance of the outcomes based on previous similar studies, and sample attrition is 10 percent.

#### **d. Unusual Problems Requiring Specialized Sampling Procedures**

We do not anticipate any unusual problems that require specialized sampling procedures.

#### **e. Use of Periodic Data Collection Cycles to Reduce Burden**

All of the data collection activities that we are requesting clearance for in this package will occur only once.

### **3. Methods to Maximize Response Rates and Deal with Nonresponse**

**Teacher Contact Form.** We will administer a teacher contact form that requires minimal effort to complete at the beginning of the school year (Appendix A). In the states where we will administer a teacher assessment, we will personally distribute the contact and consent forms to the teachers and request that they complete it at that time. In the other states, we will mail the forms to the teachers at their school and they will have the option of returning the forms by mail or fax.

The contact information collected by this form will help us contact teachers who leave the school during the school year so we can ask them to complete the teacher survey in the spring. To maximize response rates, we will offer teachers \$5 for each completed contact form. Based on previous projects, we anticipate a 95 percent response rate for the teacher contact form. On the Impact Evaluation of Teacher Induction Programs, teacher contact information was collected as part of a 30 minute teacher survey that achieved a 94 percent response rate. We expect a similar response rate for the teacher contact form for this study, which will take less than 5 minutes to complete.

**Teacher Math Assessment and Consent Form.** We will administer the Praxis Middle School Mathematics (0069) test to teachers in grades 6-8 in states that do not require this test (or the 0061) for certification. We will administer the Praxis Content Knowledge in Mathematics (0061) test to teachers in grades 9-12 in the states that do not require teachers to take these tests for certification. To encourage teachers to take the teacher math assessment, we will send an invitation letter on ED letterhead (Appendix B). The letter will highlight the importance and purpose of the teacher math assessment and emphasize our commitment to maintaining data confidentiality. We will follow up with telephone calls to the teachers at the school to confirm their participation. A payment of \$120 will be offered to compensate teachers for the time (two hours) and effort to take the test. The assessment will be scheduled following school hours at the school or a site within the district to minimize traveling time for the teachers.

In the states that require teachers pass these Praxis math subject tests for certification, we will collect from ETS the study teachers' test scores from when they took the test to obtain certification. These teachers will receive a letter on ED letterhead which will request them to complete and return the enclosed contact form and consent form to release their scores to the study team (Appendix B). The letter will offer a \$5 incentive upon receipt of the completed forms.

We expect that we will be able to collect existing Praxis math subject test scores for 15 percent of the teachers, based on the proportion of study teachers that is employed in states that require the test for certification. Therefore, we will seek to administer the test to 85 percent of the teachers. Drawing upon prior experience, we expect that 90 percent of these teachers will complete the teacher math assessment. The Evaluation of Early Elementary School Mathematics Curricula achieved a 96 percent response rate for a one-hour teacher assessment that was administered at the school during curriculum training sessions. Since training will not be coupled with taking the Praxis assessment in this study, we anticipate a lower response rate. In total, we expect that we will administer the test to 76.5 percent (90 percent of 85 percent) of the study teachers.

**Parent Consent.** High participation rates for the student math assessment and student records data collection will depend on high rates of parent consent for each student's participation in the study (Appendix C).

All students for whom active or passive consent is required will be asked to take home a two-sided consent form and/or notification letter, one side in English and the other in Spanish, to their parents or guardians (English copies are presented in Appendix C). These documents will be translated into other languages as needed. The documents will inform parents and guardians that their child's classroom has been selected for a national study of HSAC teachers, that participation in the study is voluntary, and that it will involve schools/districts providing demographic and test score data for their child. For the high school students, the consent documents will indicate that students will be asked to complete a math assessment in class at the end of the school year. The consent documents will also specify that the information collected will be kept confidential and will only be reported in aggregate and it will also provide a toll-free telephone number for parents to call to ask questions about the study. If possible, a letter from the school principal supporting the study will be sent along with the consent form. The language will be clear and nontechnical. The consent documents are modeled after documents we have used in other evaluations.

Before the beginning of the school year, the school principal will be called to alert him or her to the need to distribute the consent forms. The forms will be sent via Federal Express to the school, with clear instructions for their distribution. The school will be asked to send the parental consent forms in the "first-day" packages distributed to parents if possible.

Teachers will be asked to collect the signed forms, and the school will be provided with postage-paid Federal Express packages to return the completed forms. Schools will be asked if they would be willing to have the students hand address an envelope with the consent form so that the material can be directly mailed to the parent. Before the end of the first week of school, we will call the school and the teachers to remind them to encourage students to return the forms. Further calls will be made as needed. If the rate of return of consent forms is low, a member of the evaluator's data collection team will visit the school to talk personally to the principal, teacher, and class. This study member may also attend school events that are frequented by parents, such as back-to-school nights or parent-teacher nights. At these events, study members can talk about the study and directly ask parents to complete the form. Additional consent packets will be distributed to students/parents as needed. We will discuss with the school the possibility of sending the consent forms with the students' report cards or other school materials requiring parent signature (such as class syllabi).

To explore whether incentives are effective in increasing the rate at which students return consent forms in active consent districts, we propose to conduct an incentive experiment. The experiment will investigate the effectiveness of two types of incentive. The first incentive is \$25 offered to classrooms that collect signed consent forms for at least 95 percent of their students. The second incentive is a \$5 gift card offered to each student who returns the signed consent form. Both types of incentives will be paid on the basis of returned forms, regardless of whether the parent provided consent. We based our decision to provide a \$5 gift card to students on two studies. In the Impact Evaluation of Mandatory Random Study Drug Testing (OMB Approval #1850-0818), students received a movie ticket (\$7 value) for the return of a completed consent

form, regardless of the consent status. In the Evaluation of the Youth Transition Demonstration Projects (OMB Approval #0960-0687), youth received a \$10 Target gift card or Metrocard if they returned the consent form, regardless of consent status.

Schools in districts that require active consent will be randomly assigned to one of three groups:

1. Treatment 1: Classroom receives a \$25 incentive if 95 percent or more of the consent forms are returned and individual students are offered a \$5 gift card if they return the consent form.
2. Treatment 2: There is no classroom incentive; individual students are offered a \$5 gift card if they return the consent form.
3. Control. There is neither a class incentive nor a student financial incentive for returning the form.

In each group of schools, we will document the percentage of forms returned each week starting with the week the forms are sent home with the students. Other procedures used to encourage the return of the forms not involving financial incentives will be similar in each group. Comparisons across groups of the number of forms returned each week will provide estimates of whether student or classroom incentives are effective and whether offering both student and classroom incentives is more effective than either student or classroom incentives alone. A power analysis concluded that we will be able to detect a difference by group of 14 percentage points or more in the rates at which the forms are returned, a difference much lower than found in previous experiments (Thompson 1984). The results of the experiment will be documented and presented to OMB.

**School Records Data.** To minimize burden on the district and maximize the likelihood of obtaining the data, during the initial phases of recruiting we will ask each district how administrative records data are stored, how we can obtain permission for collecting this information, and the contact person we should work with to obtain the data. For districts where these data are stored at the school level, we will provide the school a letter of approval from the district and a letter that will describe the type of data requested and include a toll-free number for school staff to call if they have questions (Appendix D). We will also accept electronic data file or hard copy lists. We assume that we will be able to obtain records for 95 percent of the participating students.

**Teacher Survey.** To maximize response to the teacher survey, we will send teachers a letter that will describe the study and provide instructions to complete the survey online at their convenience or to request a paper self-administered questionnaire (Appendix E). We will send out reminder emails and make reminder telephone calls. If necessary, MPR staff will follow up with nonrespondents and administer the survey over the telephone at the teachers' convenience. To increase the response rate, we will offer \$30 for each completed survey. Drawing on our experience with similar surveys, we expect a 90 percent response rate for the teacher survey. For the Evaluation of the Impact of Teacher Induction Programs, we achieved response rates between 85 percent and 94 percent for six teacher surveys, ranging from 20 to 30 minutes long.

The 30 minute teacher survey administered for the Impact Evaluation of Teacher Preparation Models achieved a 94 percent response rate.

**High School Student Math Assessment.** Students will be asked for their assent to complete the test either through a paper form or on the first screen of the computerized math assessment (Appendix F). Students who do not assent to the test will not take the test. We expect that nearly all students will assent to take the test. Because the test is presented on a computer, it will be novel to the students, and because it is adaptive, will not be too challenging and hence frustrating. To express our appreciation for participation in the student math assessment, we will offer a \$5 gift card to participating students.

Some students in our study will transfer to other schools within the district, and others will relocate outside the school district. Student mobility will be tracked through the use of multiple classroom roster checks in each school. Schools will be asked to provide their current rosters for the classrooms of sampled teachers three times during the school year. These will be cross-checked against the study sample in each classroom. Follow-up telephone calls with the appropriate school or district administrator(s) will help determine the location of those no longer enrolled in the study class. We will attempt to test students who leave the study classroom but remain in the same school when we assess their former classmates. For students who leave the study school but remain in the same school district, every attempt will be made to test them in their new schools at about the same time as those in their original cohort. We expect a 90 percent response rate for the student assessment, the same response rate achieved for the student math assessments administered for the Impact Evaluation of Teacher Preparation Models.

**HSAC Program Administrator Interviews.** To maximize response for the interviews with the program directors, we will call the HSAC program administrators to introduce the study and talk about the purpose of the study and interviews, and describe the topics to be covered in the interviews (Appendix G). Immediately after the call, we will email the study summary to them to provide more information (presented in the first submission of this OMB clearance request). A few days later, we will call the program administrators to address their questions and arrange a time for the interview.

#### **4. Tests of Procedures and Methods to Be Undertaken**

The teacher contact form, teacher consent form, and teacher survey were modeled on instruments used in a previous study, the Impact Evaluation of Teacher Preparation Models. The school records data collection form was modeled on forms developed for the Impact Evaluation of Charter School Strategies and Impact Evaluation of Teacher Induction Programs. The teacher contact form, teacher consent form, and school records data request form will not be pretested for this study as they were used effectively in previous studies for similar purposes. The teacher assessment, Praxis math subject tests, will not be pretested in light of its established use as a teacher assessment.

We conducted a pretest of the teacher survey with six middle and high school math teachers with a variety of routes to certification. The pretest did not result in any substantive changes to the survey and confirmed the burden to be 30 minutes or less.

The four student math assessments (General Math, Algebra I, Algebra II, and Geometry) will be piloted in spring 2009 to ensure that there is sufficient time in one class period to obtain a precise measure of a student's achievement and to resolve any logistical issues in administering the student assessment for the evaluation. Each version will be tested with 40 students from low income districts. Request for clearance for this pilot study was included in the first stage of the OMB package.

The parent consent forms will not be pretested as they were modeled on consent forms that were successfully used for the Impact Evaluation of Teacher Preparation Models and the Impact Evaluation of Teacher Induction Programs. The student assent statement will not be pretested as it was modeled upon assent statements used in previous studies.

The HSAC program interview protocol will not be formally pretested as it is considered a guideline for discussions, rather than a highly structured interview guide. However, after the first two sets of interviews, the research team will hold a debriefing to discuss how the protocols are working and make any necessary modifications. Additionally, our interviewers will be trained to understand the kind of information we need to collect and the meaning of particular questions, so they can communicate that effectively to interviewees.

## 5. Individuals Consulted on Statistical Aspects of the Design

The following individuals were consulted on the statistical aspects of the study:

Name	Title	Telephone Number
Melissa Clark	Senior Researcher, MPR	609-750-3193
Philip Gleason	Senior Fellow, MPR	315-781-8495
John Deke	Senior Researcher, MPR	609-275-2230

The following individuals will be responsible for the data collection and analysis:

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Melissa Clark	Senior Researcher, MPR	609-750-3193
Kathy Sonnenfeld	Survey Researcher, MPR	609-275-2293
Eric Zeidman	Survey Researcher, MPR	609-936-2784

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