Urban Debate and High School Educational Outcomes for African American Males: The Case of the Chicago Debate League

Briana Mezuk   **University of Michigan**

This study examines whether participating in competitive policy debate influences high school completion, academic achievement, and college readiness for African American male students. The analysis examines data from the Chicago Debate League from 1997 to 2006. Debate participants were 70% more likely to graduate and three times less likely to drop out as those who did not participate, even after accounting for 8th grade test scores and grade point average. Debate participants were more likely to score at or above the ACT benchmarks for college readiness in English and reading, but not in science or mathematics, than those who did not participate. Recurrent participation in policy debate positively influences scholastic achievement among African American male students in this urban setting.

In 2003, the national high school graduation rate was 70%; however, there was marked variation in high school completion rates by region and urbanicity (Swanson, 2008). The 2003 graduation rate in the city of Chicago Public School district was only 48% (Chicago Public Schools OREA, 2009), which is consistent with data showing that urban public school districts have, on average, lower high school completion rates than their suburban counterparts (Swanson, 2008). Racial and ethnic minorities disproportionately experience poor educational attainment even in these underperforming urban settings. For example, within Chicago the 2003 graduation rate for non-Hispanic White students was approximately 10% higher than for African American students (54.0% vs. 44.5%, respectively; Chicago Public Schools OREA, 2009). Within urban districts like Chicago, African American males have particularly low graduation rates and high dropout rates relative to their non-Hispanic White counterparts (35% and 61%, respectively; Chicago Public Schools OREA, 2009). Disparities in college matriculation and graduation mirror those seen in secondary education. African American men are less likely to graduate high school, less likely to matriculate to either two or four-year postsecondary education than Whites, and, once in college, are less likely to graduate in six years (Knapp, Kelly-Reid, & Ginder, 2009).

Ensuring that African American males graduate from high school and possess the literacy skills to succeed in college, in the workplace, and in broader society is a core priority for education policymakers. It is estimated that 25% of high school students read "below basic" level and nearly 40% of high school graduates lack the literacy skills employers seek (U.S. Department of Education, 2003). Substantial investments have been made to improve reading performance in elementary education, but few programs are available to effectively address *secondary* literacy for urban students generally, or African American men specifically. While urban students show steady improvement in early literacy, many studies isolate a "fourth grade slump"—a point in literacy learning where students begin to transition from "learning to read" to "reading to learn" and where students who will eventually read below grade level in later years show marked difference from their peers (Chall & Jacobs 2003; Chall, Jacobs, & Baldwin, 1990). The literacy gains in economically poor school districts generally flat-line or decline at this point relative to more affluent districts (Alliance for Excellent Education, 2006; U.S. Department of Education, 2005). This slump has severe consequences, since only 21% of African American and 33% of Hispanic

high school graduates meet college readiness benchmarks for reading (ACT, 2006). Secondary literacy impacts both reading intensive courses (i.e., literature and composition) and students' ability to access and master material and concepts across the curriculum (Snow & Biancarosa, 2003). Thus, student progress as a whole can be significantly impaired when students have poor secondary reading skills.

Findings increasingly indicate that improving secondary literacy requires sustained engagement with *complex texts*. The ability to engage with such texts (defined as writings with sophisticated structure, style, vocabulary, and purpose) is the clearest differentiator for success in college (ACT, 2006). Secondary reading skills include reading for important details, identifying causal and comparative relationships, and evaluating and drawing conclusions from evidence. These are also the skills at the core of competitive policy debate, which focuses on gathering and evaluating evidence from research, comparing authors' claims, and distilling key arguments from text. Participation in debate may be a means to improving secondary literacy and, thus, overall educational outcomes for students, particularly those who are not well served by existing academic programs, including young African American men in urban school districts (Payne, 2006; Schott Foundation for Public Education, 2008; Schweinhart, Barnes, & Weikhart, 1993; Tatum, 2005). The following sections briefly discuss the history of urban debate leagues in the U. S. and the existing evidence regarding their influence on academic achievement.

HISTORY AND ORGANIZATION OF URBAN DEBATE LEAGUES

In 1985, the first Urban Debate League (UDL) was founded in the Atlanta Public School district. This initial program served as the model for the Open Society Institute's *Urban Debate Initiative* in 1997 (Breger, 2000). Most UDLs consist of a partnership between the school district and a private nonprofit organization that has a board of directors comprising leaders in the education, civic, and business communities. Such leagues currently exist in 24 cities across the United States (National Association for Urban Debate Leagues, 2008a).

UDLs organize interscholastic debate as an academic competition, and promote debate as a component of the regular classroom curriculum. UDLs also provide college access-oriented opportunities, including technical assistance, mentoring, and event facilities provided by universities. Debate becomes part of the curriculum, either as a dedicated course or as an activity in other scholastic areas (e.g., social studies). Participation in debate is generally restricted to students in high school (grades 9 to12), although some UDLs have expanded their programs to include middle school divisions. Although UDLs and other forensics programs have become increasingly adopted in urban school settings, there is only limited research as to whether these programs improve student achievement.

EXISTING RESEARCH ON DEBATE AND EDUCATIONAL OUTCOMES

Despite widespread community support and anecdotal accounts (Lee, 1998; Warner & Bruschke, 2001), there has been little empirical quantitative research on the impact of debate participation on student outcomes in urban settings. An unpublished study comparing students who participated in five UDLs ($n = 209$) to students who did not ($n = 212$), reported that over the course of the academic year debaters had improved reading scores, indicated by the Scholastic Reading Inventory, and higher grade point averages (GPAs) than non-debaters (Collier, 2004). Another evaluation of students ($n = 235$) and coaches ($n = 25$) from the Baltimore UDL examined student attitudinal and educational outcomes over the course of the academic year and reported that more intense debate participation was associated with improvements in self-reported reading comprehension and a shift towards an internal locus of control (i.e., an increase in the belief that events are influenced by one's own actions rather than being influenced by the actions of others and, thus, beyond one's control; Sugland, Pelea, Leon, Harris, & Peak, 2003). A third evaluation comparing reading and psychosocial outcomes of students in the Minneapolis UDL reported that

debaters had greater improvements in reading comprehension, self-esteem rates, and a diminution of truancy rates relative to non-debaters over the academic year (DOC Communications, 2005). Other reports have indicated that debaters have higher graduation and college admission rates compared to school or district averages (National Association for Urban Debate Leagues, 2008b). Despite these positive findings, all of these investigations are subject to four major limitations that policymakers should be cautious of: (a) lack of or inappropriately specified comparison group; (b) failure to control for selection effects; (c) limited sample size; and (d) lack of academic scrutiny of the findings (i.e., none have been published in peer-reviewed journals). The research team sought to overcome these limitations with the present study and, thus, provide policymakers and practitioners with quantitative, empirical evidence as to whether or not UDLs influence academic achievement.

PURPOSE OF THIS STUDY

Motivated by the need to identify factors that influence achievement of African American male high school students, and the increasing attention to the role of co-curricular activities such as debate in urban school settings, this study addressed two questions: (a) How are students who choose to participate in urban debate different from their peers who do not choose to participate (that is, is there differential self-selection into the activity)? and (b) What is the influence of debate participation on three scholastic outcomes: GPA, college readiness as measured by the ACT, and ultimate high school outcome (graduate or drop out)? These questions were investigated using data from the Chicago Public School (CPS) district over the 10-year period from 1997 to 2006.

DATA SOURCE AND METHODOLOGY

Sample

The CPS system offers a unique opportunity to examine the influence of debate on academic outcomes because of its data-sharing agreement with the Consortium on Chicago School Research (CCSR) at the University of Chicago. The CCSR has an active partnership with the CPS and houses CPS enrollment, demographic, attendance, and achievement data dating from 1991 (Consortium on Chicago School Research at the University of Chicago, 2008). The CCSR also conducts field surveys of CPS students, teachers, and principals; conducts evaluations of CPS programs, and produces reports for individual schools; and the district overall regarding performance.

The sample for this study is derived from CPS academic records and is restricted to students who attended at least one year of high school in the district from 1997-1998 to 2006-2007 academic years (that is, it does not include students who attended private or charter schools or who left the CPS district prior to ninth grade). The CPS district currently consists of 116 high schools (39 of which participated in the Chicago Debate League) and serves approximately 112,000 students in grades 9 through 12. The district is racially diverse and is approximately 8% non-Hispanic White, 47% African American, 39% Hispanic, and 3% Asian, with multiracial students making up the majority of the remainder (Chicago Public Schools, 2007).

Students who participated in the Chicago-based UDL, the Chicago Debate League (CDL), were identified through tournament registration records (described below). Tournament records spanned from the 1997-1998 to 2006-2007 academic years. These tournament registration records were linked with CPS enrollment data by the CCSR. In a minority of cases (4.2%), students could not be accurately identified from the tournament registration records (e.g., students who were only identified by initials or a first name on the tournament roster and therefore could not be definitively matched to a student identification number). These cases were removed from analysis.

A random sample of students who attended the same CPS schools that participated in the CDL was derived from enrollment records. The selection of students who did not participate in debate was restricted to the 39 schools that made up the CDL in order to account for school-level

differences that may have influenced both achievement and likelihood of a school participating in the UDL (i.e., teacher-to-student ratio, availability of honors courses, relative poverty). This student selection process had the effect of "matching" debaters and non-debaters on these school-level characteristics. A four-to-one ratio of non-debaters to debaters within each school was targeted for the sample (the actual sampling ratio as 3.978:1). A total of 12,179 CPS students, enrolled at some point during the 1997-1998 to 2006-2007 academic years, were selected for the sample, of which 2,449 (20%) had participated in at least one CDL tournament. The final selected sample was well-representative of the general CPS student population in terms of race/ethnicity (15% non-Hispanic White, 48% African American, and 32% Hispanic). Race was determined by student self-report.

This analysis is largely restricted to African American male students ($N = 2,614$), of which 458 (18%) participated in the CDL. However, comparisons are made to the general CPS student population where appropriate to provide context. Data were derived from two main sources: CDL tournament records and CPS academic records.

Measures of Debate Participation

Data on debate participation were derived from CDL tournament registration records. The CDL held five to six tournaments each academic year from 1997-1998 to 2006-2007. Each debate tournament consisted of five 90-minute structured rounds in which students engaged in arguments on a specified topic. For each tournament, tabulation sheets record team rosters that yield the names of participating students, their school, division of competition (novice/junior varsity or varsity), the number of rounds debated, and the outcome (win or loss) of each round. Students were considered to be a debater if they had *ever* attended a CDL tournament (that is, if they had debated in at least one round in any tournament over the course of high school).

In addition to the dichotomous coding of whether or not a student ever participated in debate, a summary measure of the intensity of high school debate involvement was derived by adding the total number of rounds debated each year and summing those annual totals across all years the student debated.

Measures of Academic Performance and Educational Achievement

Four measures of educational achievement data were used in this analysis: (a) 8th grade standardized math and reading test scores from the Illinois Standards Achievement Test; (b) cumulative GPA for 8th and 12th grades; (c) standardized college readiness test scores from the ACT; and (d) and ultimate high school outcome (i.e., dropout or graduate).

Eighth grade standardized tests of reading and mathematics ability. The state of Illinois uses standardized tests given in eighth grade to identify four components of student ability: (a) to establish a baseline of achievement information prior to beginning secondary schooling; (b) to facilitate monitoring of student development over the course of schooling; (c) to identify areas of relative strengths and weaknesses for students; and (d) to help determine whether students have the scholastic background and skills necessary to successfully learn at their instructional level. This study is primarily concerned with using these test scores to indicate this latter characteristic of *student ability prior to entering high school*. The Illinois Standards Achievement Test (ISAT) is a statewide examination administered to eighth grade students beginning in 1999, with scores ranging from 120 to 200 for each of the reading and math sections (Illinois State Board of Education, 2009). The reading section covers several domains, including vocabulary meaning, analyzing idioms, analogies, figurative expressions, and etymologies. The mathematics section covers problems using whole numbers, percents, proportions, and exponents. The multivariate regression analysis (described later) was restricted to students with complete data on ISAT test scores (59% of students in the total sample). These test scores, along with eighth grade GPA, were

used to *determine whether academic performance in middle school influenced self-selection into debate in high school.*

Cumulative GPA. The cumulative GPA for all courses taken in 8th grade and 12th grade was determined by averaging the cumulative GPA for the fall and spring semesters of that grade level. Cumulative GPA for each grade level ranged from zero to five (with five being indicative of advanced or honors coursework).

High school completion. Two possible high school completion outcomes were evaluated: graduation and drop out. For the purposes of this analysis, the proportion of students who graduated or dropped out of high school was determined by first removing students from the sample who transferred out of the CPS system (either to another school system or to home instruction; $n = 145$). The *graduation* outcome was assigned only to students who graduated from a CPS school (that is, it does not include students who earned GEDs or graduated from an alternative CPS institution that grants a completion certificate but not a high school diploma). The *dropout* outcome was assigned to students who were determined to have dropped out of school for any reason, including military service, marriage, parenthood, employment, or care giving, as well as students who could not be located but were not known to have transferred to another school, died, or been incarcerated. Those students who left the CPS system *prior to high school* due to transferring or dropping out are not included in the calculation of either the graduation or drop out proportion.

College readiness: ACT scores. The ACT is a standardized assessment used in college admissions (similar to the SAT) and is composed of four sections: English composition, mathematics, reading, and science. Scores on each of these sections of the ACT range from 1 to 36, and are averaged to generate a total score. The ACT is generally taken in the spring before students apply to college (spring of 11th grade). For each section, the ACT has a designated "benchmark score" (English = 18; mathematics = 22; reading = 21; and science = 24; ACT, 2006). To score *at or above this benchmark* on a particular section indicates that the student is *"college ready" for coursework in that subject*, meaning that the student has a 50% chance of obtaining a B or higher in that course area. For the purpose of analysis, dichotomous variables were created that indicated whether the students' scores met or exceeded these benchmarks on each of the four sections.

Statistical Analysis

Descriptive analyses were carried out in three steps. First, all students who participated in the CDL were compared to the random sample of CPS students. The statistical significance of these group comparisons was determined using chi-squared tests for categorical variables (i.e., race/ethnicity, sex, grade level, high school completion) and Mann-Whitney tests for continuous variables (i.e., GPA, age, ISAT test scores). The Mann-Whitney test was used rather than the standardized t tests because the distribution of many of the continuous variables was skewed. Second, the same analytic strategy was used for comparing debaters and non-debaters in the subsample restricted to only African American male students. Finally, the influence of intensity of debate (i.e., frequency of participation) was examined by restricting the sample to only students who had ever participated in the CDL, again examining both debaters overall and the subsample restricted to African American males.

Multivariate regression was used to estimate the influence of debate participation on four outcomes: (a) 12th grade GPA; (b) probability of graduating high school; (c) probability of dropping out of high school; and (d) probability of being college ready as assessed by the ACT. In order to estimate the influence of debate independent from pre-existing achievement that may have influenced the likelihood to debate and the outcomes (self-selection bias), all models were adjusted for eighth grade ISAT test scores and eighth grade GPA, both centered on their respective

means. Eighth grade—rather than ninth grade—GPA and test scores were chosen as control variables because CPS students are not permitted to participate in debate until ninth grade, and therefore, these eighth grade indicators represents the best estimate of *"pre-debate"* achievement that could not have been influenced by participation in the activity. As appropriate for the model assumptions, multiple linear regression was used for the *continuous* outcome of GPA, while multiple logistic regression was used for the three *binary* outcomes (graduation, dropout, and scoring above the college readiness benchmarks for the ACT). As with the descriptive analyses, these models were applied to the sample as a whole and to the subsample restricted to African American males.

This study was approved by the University of Michigan School Public Health Institutional Review Board and the CPS Office of Research, Evaluation and Accountability. All analyses were conducted using STATA v.9 (StataCorp, 2005) and all p values refer to two-tailed tests.

RESULTS

There were nearly 2,500 CPS students who participated in at least one CDL tournament over the 10-year period. The number of schools hosting debate teams increased from 5 in 1997-1998 to 37 in 2006-2007, with a maximum of 39 in 2005-2006. The average CDL participant debated 25.5 rounds (approximately equal to five complete tournaments) over the course of high school. As illustrated by Table 1, compared to the *typical* CPS student, CDL participants were less likely to be male, less likely to be Hispanic and more likely to be African American.

Selection into Debate

Only high school students (grades 9 to 12) are allowed to participate in the CDL and, thus, the eighth grade test scores *indicate to what degree higher-performing students self-select into the activity* later on in high school. As shown by Table 1, CDL participants had higher average eighth grade test scores, suggesting that higher-performing students do preferentially select into the activity. Among students who scored in the upper quartile of the eighth grade ISAT reading assessment, 31% participated in debate, as opposed to only 8% of those who scored in the lower quartile ($p < 0.001$). A similar pattern was seen when the analysis was restricted to African American male students (32% of the upper quartile participated in debate, in comparison to 6% of the lower quartile, $p < 0.001$).

Among CDL participants, several factors were associated with likelihood of engaging in *intense* (defined as debating greater than 25 rounds over the course of high school) as opposed to a more *peripheral* (defined as debating less than 5 rounds over the course of high school) participation in the activity. Those students who had more intense debate involvement were more likely to be female ($p < 0.001$), had higher eighth grade GPA ($p < 0.001$), and had higher eighth grade test scores (all $p < 0.01$). Level of debate involvement did not vary significantly by race ($p = .110$). Among African American male CDL participants ($n = 458$), those who were more intensely involved in the activity had higher eighth grade ISAT test scores and GPA relative to those with more peripheral participation. Having established that debate preferentially attracted academically oriented students into the activity, the next set of analyses sought to determine whether debate influenced the three indicators of academic achievement (GPA, high school completion, and ACT scores) *after accounting for this self-selection.*

Table 1

Descriptive Characteristics of Chicago Public School Students, 1997-1998 to 2006-2007

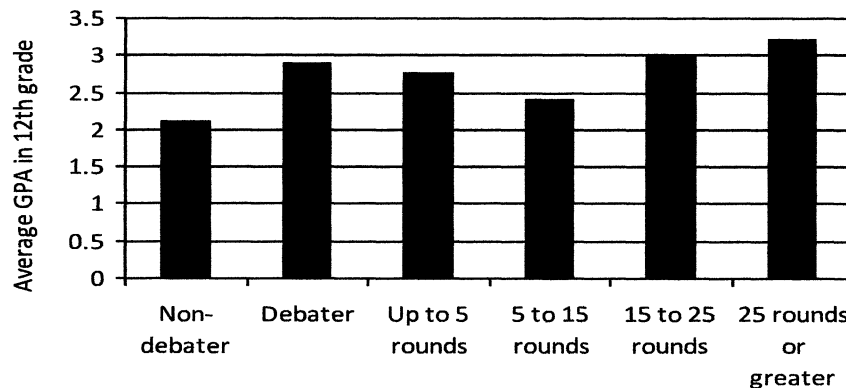|	Total Sample				African American Males Only		
	Overall	CDL participants	CPS random sample	*p*-value*	CDL participants	CPS random sample	*p*-value*
Total *N*	12,179	2,449	9,730		458	2,156	
Male (%, *SE*)	47.6 (0.5)	40.8 (1.0)	49.3 (0.5)	<0.001			
Race (%, *SE*)							
Non-Hispanic White	14.7 (0.3)	15.8 (0.7)	14.4 (0.4)	0.001			
African American	47.6 (0.5)	49.4 (1.0)	47.1 (0.5)				
Latino	31.5 (0.4)	27.9 (0.9)	32.4 (0.5)				
Asian	6.1 (0.2)	6.7 (0.5)	5.9 (0.2)				
Native American	0.2 (0.03)	0.2 (0.1)	0.2 (0.04)				
8th grade test scores (*M, SD*)†							
ISAT Math	160.2 (17.1)	165.3 (16.3)	158.9 (17.1)	<0.001	162.4 (15.2)	153.8 (16.0)	<0.001
ISAT Reading	157.8 (13.1)	163.3 (11.5)	156.3 (13.1)	<0.001	162.0 (10.7)	153.2 (13.1)	<0.001
ACT test scores (*M, SD*)							
Reading	19.3 (6.1)	21.1 (6.1)	18.8 (6.0)	<0.001	20.2 (5.7)	17.2 (5.3)	<0.001
English	18.7 (6.1)	20.4 (5.9)	18.1 (6.1)	<0.001	19.5 (5.3)	16.3 (5.5)	<0.001
Math	18.8 (4.9)	19.5 (5.0)	18.5 (4.8)	<0.001	18.6 (4.1)	17.3 (4.0)	<0.001
Science	18.9 (4.8)	20.1 (4.7)	18.5 (4.8)	<0.001	19.4 (4.3)	17.4 (4.6)	<0.001
GPA (*M, SD*)							
8th grade	2.4 (1.2)	2.9 (1.0)	2.2 (1.2)	<0.001	2.5 (1.0)	1.7 (1.0)	<0.001
12th grade	2.8 (1.0)	3.2 (1.0)	2.7 (1.0)	<0.001	2.9 (1.0)	2.2 (1.0)	<0.001
Graduate high school (%, *SE*)	59.1 (0.4)	77.4 (0.8)	54.5 (0.5)	<0.001	73.4 (2.1)	43.6 (1.1)	<0.001
Dropout of high school (%, *SE*)	17.6 (0.3)	7.2 (0.5)	20.2 (0.4)	<0.001	10.2 (1.4)	28.2 (1.0)	<0.001

Note: CDL: Chicago Debate League; *M* = Mean; *SD* = Standard Deviation.*†Two different 8th grade assessments were used over the study period. The Iowa Test of Basic Skills (ITBS) was administered from 1994 to 1998. The Illinois Standards Achievement Test (ISAT; which replaced the ITBS) was administered from 1999 to 2005. Only ISAT scores are used in this analysis. The scores in the table represent the mean (standard deviation) test scores over each period; *p*-value comparing CDL participants to the random sample of CPS students selected from the same schools as the CDL participants. *p*-values were derived from chi-squared tests for categorical variables and Mann-Whitney tests for continuous variables.

Influence of Debate Participation: 12th Grade GPA

For the sample as a whole (including debaters and non-debaters), the average 12th grade GPA was higher than the average 8th grade GPA, a trend at least partially accounted for by the selective attrition of poorly performing students out of the school system between middle-school and senior year of high school (Table 1). Even among these remaining, higher performing seniors, debaters had higher average GPA s than non-debaters at 12th grade. Figure 1 illustrates the relationship between the intensity of debate participation, indicated by the number of rounds debated, and 12th grade GPA among African American male students. This bar graph shows that as the number of rounds debated increases, average 12th grade GPA also increases ($p < 0.031$ for linear trend across categories of debate rounds).

Among all CDL participants, students who debated 25 or more rounds during high school (the equivalent of completing five debate tournaments), had 12th grade GPAs that were, on average, 0.20 points higher than students who debated fewer than 5 rounds, even after accounting for eighth grade test scores and eighth grade GPA. This 0.20 point difference in GPA is approximately equivalent to 20% of a letter grade ($p < 0.05$). Restricting the analysis to African American male debaters, those who debated 25 rounds or more had 12th grade GPAs that were nearly half a letter grade (0.49 points) higher than those who debated fewer than 5 rounds after accounting for 8th grade achievement, although this association was only marginally statistically significant ($p = 0.056$), reflecting the smaller sample size for this analysis.

Figure 1. Average cumulative 12th grade GPA by intensity of debate participation among African American males

Among African American male CDL participants only

Note. Mean 12th grade cumulative GPA (adjusted for 8th grade math and reading ISAT scores and 8th grade GPA) among African American males with complete GPA data (Total N = 147). Adjusted mean 12th grade cumulative GPA among African American male CDL participants stratified by categories of debate participation (CDL N = 39).

Influence of Debate Participation: High School Completion

Overall, the proportion of students who graduated from CPS from 1996-1997 to 2006-2007 was 59.1%. Among African American males this proportion was even smaller, at only 48.9%. The proportion of African American males who graduated was nearly *70% greater* among debaters

relative to non-debaters (73.4% vs. 43.7%, respectively). In parallel, the proportion of African American male debaters who dropped out of high school was nearly *three times lower* compared to non-debaters (Table 1). As shown by Figures 2a and 2b, African American male CDL participants with more intense involvement in debate were more likely to graduate from high school ($p < 0.001$) and were less likely to drop out ($p < 0.018$) compared to students with only marginal (< 5 rounds) involvement in the activity.

Influence of Debate Participation: College Readiness

Overall, debaters had higher average ACT scores than non-debaters (Table 1). The cumulative ACT score for CDL participants (generated by averaging the scores on the four ACT sections) was 20.3 as compared to 18.5 for non-debaters ($p < 0.001$). This trend for debaters to score better on the ACT than non-debaters persisted when the sample was restricted to African American males (cumulative ACT for debaters: 19.4 vs. non-debaters: 17.0, $p < 0.001$).

African American males who debated were twice as likely to score at or above the college readiness benchmark on the English ACT as those who did not debate (odds ratio: 1.99, $p < 0.003$) after accounting for eighth grade achievement, a finding that was similar to that for the sample overall (odds ratio: 1.56, $p < 0.001$). Also among African American males, debate participation was associated with 70% greater chance of scoring at or above the benchmark for the Reading section of the ACT (odds ratio: 1.70, $p < 0.02$), even after accounting for eighth grade GPA and ISAT math and reading scores. However, this association between debate and the reading section was *not* seen in the sample overall (odds ratio: 1.18, $p = 0.082$). After accounting for eighth grade GPA and test scores, there was no significant association between participating in the CDL and scores on either the Science (odds ratio: 1.34, $p = .322$) or Mathematics (odds ratio: 1.18, $p = .551$) sections of the ACT. In all models, higher scores on the eighth grade standardized tests were significantly associated with meeting or exceeding ACT benchmarks, even in those instances where debater status was not.

Figure 2. Predicted probability of graduating (panel A) and dropping out (panel B) of high school by intensity of debate participation among African American male debaters

(A) Graduate high school   (B) Drop out of high school
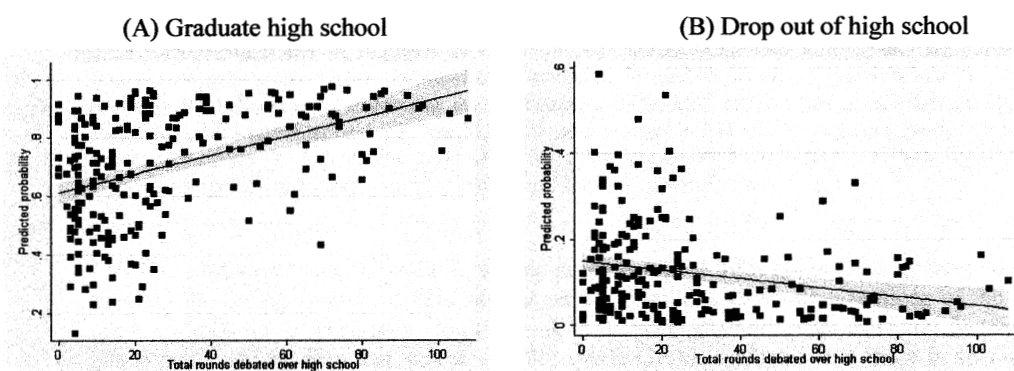
Note. Displays data only from African American male students who participated in the CDL and who had complete data on ISAT 8th grade test scores ($N = 277$). The values displayed in the figure are adjusted for ISAT scores (math and reading) and 8th grade GPA. The line and 95% confidence intervals indicate the average expected association between debate participation and probability of graduating (panel A) or dropping out (panel B).
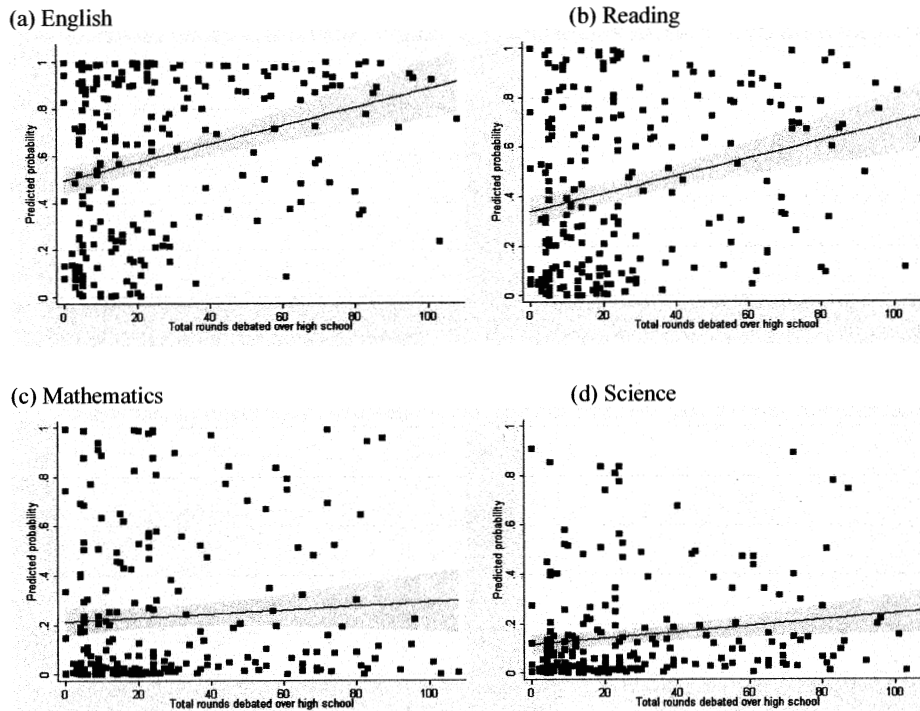
Among African American male CDL participants, intensity of debate participation was positively associated with the probability that the student scored at or above the benchmark on the English and Reading ACT in a *dose-response manner* (i.e., as the number of rounds a student debated over the course of high school increased, the predicted probability that the student scored at or above the benchmark, on average, also increased), even after accounting for eighth grade test scores and GPA (Figures 3a and 3b). The association between increased debate participation and probability of exceeding these ACT benchmarks was strongest for those who had debated 25 or more rounds over the course of high school (equivalent to attending 5 complete tournaments). There was no association between intensity of debate participation and probability of scoring above the benchmark for the Mathematics section of the ACT (Figure 3c). There was a modest association between intensity of debate participation and probability of exceeding the benchmark on the Science section (Figure 3d). Marginal participation in debate (that is, debating less than 15 rounds, equivalent to completing 3 or fewer tournaments) was not significantly associated with performance on any section of the ACT.

DISCUSSION

The three main findings from this study are: (a) competitive policy debate preferentially attracts academically oriented students; (b) despite this selection of better performing students into the activity, and after accounting for 8th grade scholastic characteristics, students who participated in debate had higher 12th grade GPA, were more likely to graduate from high school, less likely to drop out of high school, and were more likely to be college ready in reading and English than those who did not participate in debate; and (c) level of participation in this activity influences these associations in a dose-response manner, such that students with recurrent debate participation had higher likelihood of positive academic outcomes relative to those with only peripheral participation.

The finding that debate preferentially attracts academically oriented students should be understood within the context of this particular urban school district in two ways: (a) students who will go on to participate in the CDL in high school have higher average eighth grade test scores in reading and math than those who do not participate, but (b) even these higher test scores are not, on average, indicative of "well-performing" students (i.e., the average test scores for CDL participant are still below the state standards for adequate eighth grade performance; Illinois State Board of Education, 2009). In summary, while the eighth grade test scores for CDL participants are higher relative to non-participants, the absolute level of these scores is not indicative of adequate (let alone superior) academic achievement in middle school. This suggests that although self-selection certainly plays a part in who participates in this activity (as with all voluntary activities, particularly those concerning education attainment; Willis & Rosen, 1979), the bar for entry is not so high that only students with extraordinary academic track records seek to participate. This finding stands in contrast to other education reform efforts, such as the Knowledge is Power Program (KIPP), that, although apparently successful at improving achievement outcomes and college readiness, have steep entry requirements (i.e., significantly extended school day, week, and year; teachers, parents, students must sign written commitments to the KIPP educational philosophy and requirements) and may discourage some families and students, particularly those from disadvantaged backgrounds or with poor scholastic performance, from enrolling in the program (Carnoy, Mishel, Rothstein, & Jacobsen, 2005).

Figure 3. Predicted probability of scoring at or above the benchmark on each section of the ACT by frequency of debate participation among African American male debaters

(a) English

(b) Reading

(c) Mathematics

(d) Science

Note. The panels above display data only from African American male students who participated in the CDL and who had complete data on ISAT 8th grade test scores ($N = 277$). The values in the plots indicate the predicted probability of scoring at or above the benchmark for each ACT section according to intensity of debate involvement and are adjusted for 8th grade ISAT scores (math and reading) and 8th grade GPA. The line and 95% confidence intervals indicate the average expected association between debate participation and probability of meeting or exceeding the benchmark. Each ACT section has a different benchmark score (English = 18, Mathematics = 22, Reading = 21, and Science = 24) and has a total possible score of 36. To score at or above the benchmark score of each section is indicative of college readiness for coursework in English composition, algebra, social sciences, and biology, respectively.

The finding that participation in debate predicts higher 12th grade GPA, greater likelihood of meeting the college readiness benchmarks on the English and Reading sections of the ACT, and greater likelihood of graduating high school, even after accounting for selection factors (i.e., 8th grade math and reading test scores and 8th grade GPA), indicates that there is an *independent* effect of debate on these outcomes. The finding of only weak and statistically insignificant associations between debate and performance on the ACT Science and Mathematics sections suggests that the influence of debate on college readiness is restricted to those skills that are explicitly focused on in debate competitions, namely English composition, comprehending complex non-fiction texts, evaluating whether evidence is sufficient to support claims, assessing argumentation, and vocabulary. This result also indicates that selection factors likely do not in and of themselves explain the higher scholastic performance of debaters. If this were the case (that is, if *only* higher achieving students participated in and/or benefited from debate), it would be

expected that debaters would perform better than non-debaters on *all* scholastic outcomes, not just those relevant to the activity.

The finding that debate participation was associated with higher ACT Reading scores among African American males, but not in the CPS sample overall, suggests that this subgroup of students may particularly benefit from the reading comprehension fostered by this activity. This may be because this group has a particularly low level of reading comprehension (as indicated by eighth grade standardized reading test scores) at entry to high school relative to other demographic groups in CPS district, and, thus, has the most potential for improvement. Alternately, competitive policy debate may be a particularly effective means of acquiring reading skills for this group, although more research is needed to understand the basis for this finding.

These results are particularly striking in light of the fact that few programs address secondary literacy for urban students generally, let alone African American males specifically (Payne, 2006; Schott Foundation for Public Education, 2008; Schweinhart et al, 1993; Tatum, 2005). Key secondary reading skills include reading for important details, identifying causal and comparative relationships, and evaluating and drawing conclusions from evidence. As discussed earlier, these are also the primary skills fostered by competitive policy debate. Therefore, the association between debate and higher scores on the ACT Reading section reflects a constructive "intervention" focused on secondary literacy among a student population for whom literacy scores often otherwise remain stagnant in middle and high school based on national averages.

These findings should be interpreted in light of study limitations. First, although eighth grade achievement factors were included in the regression analyses, there may be other factors that were not taken into account (i.e., level of parental education) that may have influenced self-selection into debate and achievement outcomes. However, provided that these other factors are correlated with eighth grade achievement, these analyses would at least partially account for their effects. Second, these analyses only estimate the average influence of debate participation. There is likely heterogeneity in effect that these analyses do not capture. Future research should employ statistical approaches that account for this. Finally, these findings may not be generalizable to suburban or more rural settings.

Despite these limitations, this study represents the largest evaluation of policy debate on educational achievement in an urban setting and, to the best of this author's knowledge, the only quantitative evaluation of debate focused on educational outcomes for African American young men. The analysis used amassed educational data from middle and high school in order to account for self-selection into debate in high school and examined multiple achievement outcomes. Finally, this study used data from all CDL participants, not just those with high levels of involvement in the activity. As a result, the estimates generated here are more representative of the overall influence of debate on achievement than previous reports.

IMPLICATIONS FOR POLICY AND PRACTICE

These findings suggest four ways in which education practitioners and policymakers in the United States can act to improve academic outcomes for African American male high school students: (a) broaden access to academically rigorous programs that extend learning opportunities throughout the academic year; (b) support co-curricular programs that focus on secondary literacy skills and incorporate complex reading materials into instructional time; (c) implement programs that prepare and motivate students to excel at school-based learning; and (d) invest in innovative programmatic approaches backed by empirical evidence. Each of these suggestions is discussed in more detail below.

- *Extend learning opportunities throughout the academic year.* Many education models incorporate lengthening the school day or year as part of their programmatic approach (e.g., the KIPP approach aims to extend the time students are engaged in school activities by approximately 60%). UDLs extend learning time while employing a program model

designed to cultivate rigorous research, critical thinking, writing, and reading. The program examined here lengthens the school day with weekly teacher-directed afterschool practices, lengthens the school week with Friday and Saturday competitions, and lengthens the academic year with training in the form of a two-week long debate institute each August. This constructive, academic-focused out-of-school activity complements learning within the traditional school schedule.

- *Support co-curricular programs that focus on secondary literacy.* According to an ACT study on factors that influence success at college, "...students need to be able to read complex texts if they are to be ready for college" (Reading Between the Lines, 2006, p .23). Participation in debate often entails hundreds of hours independently reading, evaluating, synthesizing complex non-fiction text, and writing argument briefs based on those texts. Interventions that aim to strengthen secondary reading instruction for African American males by incorporating complex reading materials into instruction merit further investigation.

- *Prepare and motivate students to excel at school-based learning.* These findings suggest that UDLs equip students to take advantage of learning opportunities available through the traditional school curriculum in four distinct ways: (a) debate participation entails dozens of hours of interaction between teachers and students, often creating relationships where students gain recognition, feedback, and perspective; (b) competitive policy debate motivates learning because students participate in competitions that tangibly reward hard work (i.e., through trophies and recognition by school officials); (c) UDLs allow students in low performing schools to achieve competitive academic success, shifting their relationship to scholastic achievement and raising their expectations; and (d) debate participants spend time doing *focused, independent* work on college-level assignments, an approach proven to be a highly effective tool for improving academic achievement in secondary education settings. Efforts to support African American males might model UDLs to facilitate school-based learning by creating relationships, fostering engagement, and preparing students for focused, independent work.

- *Invest in innovative programmatic approaches backed by empirical evidence.* At all levels, educational programs need more support in order to close achievement gaps, prepare urban students for modern careers, and bring private investment to education. Systems of best practices that have been *field tested* with demonstrated success should be taken to scale by preventing cutbacks, expanding existing programs to serve more students and schools, and establishing new programs. These findings suggest that expanding access to participation in UDLs—with particular attention to monitoring the implementation of the intervention and evaluating performance—merits serious consideration from education policymakers.

CONCLUSION

Ensuring that African American male students graduate from high school with the requisite literacy and academic skills to succeed in college, in the workplace, and in broader society is a critical goal that must be addressed in a timely manner. While additional research is needed to better understand the factors that promote or discourage participation in competitive policy debate in urban settings (i.e., parental education, relative poverty, peer relationships, and psychological factors, such as self-esteem and locus of control) and how institutional characteristics influence the adoption and continued participation in urban debate programs (i.e., organizational and administrative support, teacher morale, turnover, and role in decision-making), the results discussed in this article indicate that the Chicago Debate League has succeeded in reaching a wide range of students over its 10-year history and that African American male students have substantially benefited from this program. Policy debate reinforces secondary literacy skills, and this may be one mechanism by which participating in this activity influences educational achievement. UDLs may provide an avenue for addressing the often cited Black-White

achievement gap (Jencks & Phillips, 1998) that reverberates in persistent disparities in income, occupation, wealth, and health throughout the lifespan (LaVeist, 2005).

REFERENCES

ACT. (2006). *Reading between the lines: What the ACT reveals about college readiness in reading.* Iowa City, IA: ACT.

Alliance for Excellent Education. (2006). *Why the crisis in adolescent literacy demands a national response* (AEE Policy Brief). Washington DC: Alliance for Excellent Education. Retrieved from http://www.all4ed.org/files/StrivingBrief3_numbers_02.pdf

Breger, B. (2000). Overview of the urban debate program. *Rostrum, 75,* 14.

Carnoy, M., Mishel, L., Rothstein, R., & Jacobsen, R. (2005). *The charter school dust-up: Examining the evidence on enrollment and achievement.* New York: Teachers College Press.

Chall, J. S., & Jacobs, V. A. (2003). Poor children's fourth-grade slump. *American Education, Spring. 27,* 14-15.

Chall, J.S., Jacobs, V.A., & Baldwin, L.E. (1990). *The reading crisis: Why poor children fall behind.* Cambridge, MA: Harvard University Press.

Chicago Public Schools. (2007). *CPS at a glance.* Retrieved from http://www.cps.k12.il.us/ ataglance.html

Chicago Public Schools, Office of Research Evaluation and Accountability (OREA). (2009). *Drop out and graduation rates, 1999–2008.* Retrieved from http://research.cps.k12.il.us/ cps/accountweb/Reports/citywide.html

Collier, L. (2004, November). *Argument for success: A study of academic debate in urban high schools of Chicago, Kansas City, New York, St. Louis and Seattle.* National Communication Association Convention Conference Proceedings, Chicago, IL.

Consortium on Chicago School Research at the University of Chicago. (2008). *Data and data requests.* Retrieved from http://ccsr.uchicago.edu/content/page.php?cat=6

DOC Communications, LTD. (2005). *Assessing the effect of the Minnesota urban debate league on academic and social development outcomes of students: First year report.* Minneapolis: Minnesota Urban Debate League.

Illinois State Board of Education. (2009). *Student assessment.* Retrieved from http://www.isbe. state.il.us/assessment/ISAT.htm

Jencks, C., & Phillips, M. (1998). *The Black-White test score gap.* Washington, DC: Brookings Institution.

Knapp, L. G., Kelly-Reid, J. E., & Ginder, S. A. (2009). *Enrollment in postsecondary institutions, fall 2007; graduation rates 2001 & 2004 cohorts; and financial statistics, fiscal year 2007* (No. NCES 2009-155). Washington DC: National Center for Educational Statistics, Institute of Educational Sciences, U. S. Department of Education.

LaVeist, T. (2005) Disentangling race and socioeconomic status: a key to understanding health inequalities. *Journal of Urban Health, 82,* 26-34.

Lee, E. (1998). Memoir of a former urban debate league participant. *Contemporary Argumentation and Debate, 19,* 93-96.

National Association for Urban Debate Leagues (NAUDL). (2008a). *Urban debate quickfacts.* Retrieved from http://www.naudl.org/quickfacts.htm

National Association for Urban Debate Leagues (NAUDL). (2008b). *Research documenting the academic and social benefits of urban debate leagues.* Retrieved from http://www.urbandebate.org

Payne, C. (2006). *Still crazy after all these years: Race in the Chicago school system.* Consortium on Chicago School Research. Retrieved from http://ccsr.uchicago.edu/content/ publications.php?pub_id=88

Schott Foundation for Public Education. (2008). *Given half a chance: The Schott 50 state report on public education and Black males.* Cambridge, MA: Author.

Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The HighScope Perry Preschool study through age 27* (Monographs of the HighScope Educational Research Foundation, 10). Ypsilanti, MI: HighScope Press.

Snow, C.E., & Biancarosa, G. (2003). *Adolescent literacy and the achievement gap: What do we know and where do we go from here?* (Carnegie Corporation of New York Adolescent Literacy Funders Meeting Report). Retrieved from http://olms.cte.jhu.edu/olms/data/ resource/2029

StataCorp. (2005). *Statistical software: Release 9.0.* College Station, TX: Stata Corporation.

Sugland, B., Pelea, B., Leon, J., Harris, V., & Peak, G. (2003). *Learning what you can, building from what you learn: Assessing the role of the Baltimore Urban Debate League on academic and social development outcomes of students.* Baltimore, MD: Fund for Educational Excellence.

Swanson, C. B. (2008). *Cities in crisis: A special analytic report on high school graduation.* Bethesda, MD: Editorial Projects in Education Research Center.

Tatum, A.W. (2005). *Teaching reading to Black adolescent males: Closing the achievement gap.* Portland, ME: Stenhouse.

U.S. Department of Education. (2003). *National assessment of educational progress 2002 brief* (No. NCES 2003-451). Washington DC: National Center for Educational Statistics, Institute of Educational Sciences, U.S. Department of Education.

U.S. Department of Education. (2005). *National assessment of educational progress: The nation's report card, 12th grade reading and mathematics.* Retrieved from http://nationsreportcard.gov/reading_math_grade12_2005/s0201.asp

Warner, E., & Bruschke, J. (2001). 'Gone on debating': Competitive academic debate as a tool of empowerment. *Contemporary Argumentation and Debate, 22,* 1-21.

Willis, R. J., & Rosen S. (1979). Education and self-selection. *Journal of Political Economy, 87*(5, Part 2), s7-s36.

AUTHOR

At the time this study was conducted BRIANA MEZUK was a Robert Wood Johnson Health and Society Scholar in the Department of Epidemiology at the University of Michigan, School of Public Health. She is currently an Assistant Professor in the Department of Epidemiology and Community Health at Virginia Commonwealth University, Richmond.

All comments and queries regarding this article should be addressed to bmezuk@vcu.edu