

Those Who Choose and Those Who Don't: Social Background and College Orientation

Eric Grodsky
Department of Sociology
University of Minnesota

Catherine Riegle-Crumb
Department of Curriculum and Instruction
University of Texas

Abstract

Empirical research on the decision to attend college is predicated largely on the assumption that students make conscious, utility-maximizing decisions about their educational careers. We suggest that for many students this may not be the case; in fact, we find that a large share of students assume from a young age that they will attend college, exhibiting what we call a college-going *habitus*. Consistent with critical arguments about how social class is reproduced, we find that white, native-born children of college-educated parents are more likely to take college for granted than their less advantaged peers. Students with a college-going *habitus* are more likely than others to apply to a four-year college by spring of their senior year in high school. However, while social origin accounts for some of the *habitus*/college application association, both advantaged and disadvantaged students appear to benefit from a college-going *habitus*.

Introduction

How do students choose whether or not to attend college? Much of the empirical work in sociology and virtually all of the empirical work in economics that seeks to address this question is predicated on a model of individual utility maximization. Under this model, students weigh the financial and psychic costs of college attendance against the benefits they expect to enjoy as a consequence of attending college and, if benefits exceed costs, they choose to attend. Although some models of the college choice process assume that students operate with perfect information, many are more realistic in their assessment of what students know and how certain they are in their expectations.¹

Contrary to this literature, we argue that many students don't really choose at all; they have always *assumed* that they will attend college. For such students, the decision is not whether but where to attend. Other students, however, do choose. They are the students who conform to the models of college choice common in the literature: many if not most of them decide whether or not to attend college based on material resources, personal constraints and academic achievement.

Building on the insights of Pierre Bourdieu and other scholars working in the cultural reproduction framework, we estimate a model of college *habitus* based on whether or not students claim to have made a (self) conscious decision to attend college. We evaluate the role of race/ethnicity, nativity, citizenship and parental education in adjudicating who among those planning to attend college chooses and who does not. We then consider characteristics of

¹ For reviews of the contemporary literature on college choice see Laura W. Perna, "Studying College Access and Choice: A Proposed Conceptual Model," *Higher Education: Handbook of Theory and Research* 21 (2006). and Eric Grodsky and Erika Jackson, "Social Stratification in Higher Education," *Teachers College Record* (Forthcoming).

secondary schools that may contribute to the late adoption of college *habitus* among students who otherwise would be unlikely to have a deeply held orientation to college.²

Analyzing data collected by the Texas Higher Education Project (THEOP) from students who were high school sophomores in Texas in 2002, we find that, consistent with a reproductionist frame, parental education, race/ethnicity and nativity predict college-going *habitus*. This relationship is partly but not fully mediated by student secondary school achievement, suggesting that the pathway from social origins to *habitus* is manifest only in part through the high school accomplishments of potential college matriculants. Furthermore, college-going *habitus* is associated with college application behavior among high school seniors. Contrary to reproductionist expectations, however, we find that the association between *habitus* and college application is substantially though not completely independent of social origins. Disadvantaged youth, although less likely to evidence a college-going *habitus*, benefit from a college-going *habitus* as much as their more advantaged peers. Finally, we find no evidence to support the contention that secondary school characteristics are associated with either college-going *habitus* or the probability of applying to college independent of student characteristics.

Social origins and higher education

Rates of college attendance among high school graduates in the United States have never been higher. Within two years of their graduation, 72% of students who completed high school in 1992 had attended some sort of college or university, an increase of almost twenty five percentage points over the class of 1972. Among sophomores in 2002 who had completed a high

² The model we have in mind is similar to that proposed by Perna (2006) in its emphasis on social context but different from Perna in its focus on *habitus*. Perna conceives of *habitus* as providing the context in which students make utility maximizing decisions. We suggest that *habitus* is a substitute for utility maximizing choice, at least at the stage of the choice process in which students decide whether or not to attend college at all.

school diploma or certificated\ of attendance by 2006, 78% had attained some college education by 2006.³ At the same time, the college completion rate declined from 51% to 45% between the high school graduating classes of 1972 and 1992 . Much of the increase in college attendance over the past few decades has been driven by increases in the rates of attendance among women and students with modest levels of secondary school achievement and college readiness who are less likely to complete a degree (Bound, Lovenheim, and Turner 2007).

Changes in college-going rates partly reflect increases in the economic returns to higher education (or alternatively declines in the earnings power of high school graduates and dropouts). Whether a cause or consequence of the college-for-all myth, more and more Americans believe that a college education is essential for labor market success . The spread of the college for all myth can be traced through changes in the educational expectations of recent cohorts of high school students. Between the 1980 and 2002 the share of high school seniors expecting to attend college rose from 43% to 85%. The increase was twice as great among children of parents who had not completed a bachelor's degree (just over forty percentage points) as among children with a parent who had gone completed at least a bachelor's degree (twenty percentage points) and substantially outpaced the actual growth in college attendance. This and other similar patterns have contributed to an attenuation of the relationship between social origins and educational expectations among high school students.

Declines in the stratification of educational expectations and increases in rates of college attendance would seem to undermine claims of reproduction theorists that education in general (and postsecondary education in particular) plays a pivotal role in perpetuating intergenerational

³ Authors' calculations based on Table 6 in Robert Bozick and Erich Lauff, "Education Longitudinal Study of 2002 (Els:2002): A First Look at the Initial Postsecondary Experiences of the High School Sophomore Class of 2002," (Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2007).

social inequalities. We argue, however, that reproduction theory can continue to inform our understanding of the role education plays in perpetuating social advantage and disadvantage. Although college expectations are widely held by high school students, expectations evolve at different stages in students' primary and secondary school careers. Students who have always believed that they will attend college are fundamentally different from those who make a conscious decision at some point in middle or high school to attend college. Focusing on expectations of students at the end of high school misses this critical distinction, combining early and late adopters of a college orientation into a single group.

We suggest that students with a lifelong expectation of continuing their education past high school hold a different *habitus* than those who make a more proximate conscious decision to go to college. By *habitus* we mean a largely unconscious constellation of preferences, behaviors, and styles of self presentation shaped during childhood. Although enduring, *habitus* is also subject to change over the life course, particularly as people come into contact with environments (or in the language of Bourdieu, "fields") inconsistent with their world views. There is a strong class component to *habitus*, but also substantial variation across individuals in the same social class. *Habitus* helps bound people's actions by leading them to reject pathways they view as highly unlikely to lead to success.

Schools are one of the principle agents outside of the family in the evolution of *habitués*. The field of school is heavily classed, with assumptions and styles of conduct and communication driven by the middle class norms of the teachers schools employ. In addition to being classed, however, schools legitimate social inequality by nurturing what some call the myth of meritocracy: everyone (or at least almost everyone) can succeed if they only try. Originally formulated by Young (1958) as a combination of intelligence and effort, the ideology

of meritocracy provides the underlying justification for social inequalities that arise during and through schools . Students are taught to accept the evaluations of their teachers and other educators through grades on individual assessments or courses as a legitimate basis for sorting based explicitly on the students own academic production. In the story of schools, student failure solely reflects shortcoming of the student, either in effort, cognitive skill, or the combination of the two.

College for all is a softer, more disingenuous version of meritocracy, offering the possibility that even if you haven't tried all that hard you can still go to college if you start working now or perhaps later. The explosion of remedial programs at community and four-year colleges is a testament to the strength of the college-for-all myth and the extent to which American educators and the general public are willing to postpone uncomfortable assessments of merit to achieve the veneer of universal educational opportunity.

These forces play themselves out in part through the evolution of *habitués* among students. In this paper we suggest that the *habitués* adopted by privileged youth are different from the *habitués* adopted by those less advantaged. Even though almost everyone believes that they will go to college, more advantaged students are more likely to take this belief for granted. In particular, those who are white, native born and from better educated families are more likely to fall into a reproductionist mode of college choice by not really deciding whether or not to go to college. They simply assume from a young age that it will be so. Minority youth and those from less educated families, on the other hand, trace their college expectations back to a more recent time. Such students are more likely to develop their college-going expectations as a result of their interactions with others in the field of middle or secondary school.

In addition to being more temporally proximate, we argue that the college expectations of these students may be more sensitive to school climate, or what some have called a “college going culture” or “organizational *habitus*” of the school . According to McDonough, organizational *habitus* “refers to the impact of a social class culture on individual behavior through an intermediate organization, in this case, the high school” (p. 156). In the case of choosing which college to attend, McDonough finds in her study four California high schools that organizational *habitus* “made possible different individual [college attendance] decisions by bounding the search parameters: different schools offered different views of the college opportunity structure” (156).

Even if McDonough’s insight into school *habitus* as dominant student social class *habitus* writ large proves accurate, this need not imply that the college attendance behavior of students is irrational in the sense of being inconsistent with some utility maximizing pathway. Privileged students may in fact be more likely to complete college and enjoy the rewards of a bachelor’s degree than otherwise similar disadvantaged students. However, her perspective (and ours) does suggest that standard models of college choice, based on students and their parents *consciously* evaluating the costs and benefits of college attendance, are partly misguided. Any analysis by privileged students of the costs and benefits of attending college is necessarily *ex ante* if they have really always believed that they will go to college or, in the case of McDonough’s work, attend schools in which continuing a selective four-year institution is taken as a given.

Along the same lines, the possession of a college-going *habitus* may also increase the likelihood the students behave in ways that increase their likelihood of making a successful transition from secondary to (and even through) tertiary education. A college-going *habitus* is an assumption that the goal of college is both proper and attainable without serious consideration of

the alternatives. In this way a college-going *habitus* is similar to Morgan's (2006) notion of prefigurative commitment to postsecondary education. Prefigurative commitment is the orientation of someone toward some future goal, whether arrived at by careful conscious consideration, socialization or a mixture of the two processes. Like prefigurative commitment, a college-going *habitus* may increase the likelihood that students engage in behaviors that increase their probability of attaining their goals. Morgan refers to this behavior as preparatory commitment. In the case of college attendance, preparatory commitment likely includes taking advanced coursework in high school, earning high grades and taking a college entrance exam (SAT/ACT) and its precursor (PSAT/PACT).

Surprisingly little past research has applied Bourdieu's notion of *habitus* to this critical transition. The research that has built on Bourdieu's insights to understand social stratification has largely focused on the choices *among colleges* made by students continuing their education at the tertiary level (McDonough 1997; Reay 1998; Reay, David, and Ball 2005). This work finds that social inequality is partly reproduced through the postsecondary choices students make, the resources available to them to help them make those choices, and their experiences in college. We seek to extend this literature back beyond the decision of what type of college to attend to the decision (or nondecision) to attend college at all.

Data

We rely on the first and second waves of the sophomore survey collected by the Texas Higher Education Opportunity Project (THEOP). In the base year (2002), THEOP drew a stratified, clustered sample of 108 public high schools and sought to collect data from all sophomores and seniors enrolled in each sampled school in March of 2002. After eliminating ineligible schools, THEOP achieved a school participation rate of 93.3%. In-class surveys were

the primary means of data collection but students attending schools that did not allow THEOP to conduct in-class surveys and those THEOP was unable to reach during school hours were surveyed by mail. Seventy-three percent of sophomores who attended participating schools completed a survey (Texas Higher Education Opportunity Project 2003). All student-level measures are based on student reports.

Of the 19,969 students that participated in the base year survey, we exclude 1,377 students who were not presented with the question on which we base our measure of college-going *habitus* (either because they indicated they did not expect any education past high school or because they terminated the interview before getting to this screener question) and an additional 226 respondents that failed to answer the *habitus* question. Of those with valid data for our *habitus* measure another 3,038 (15.2% of the sample) failed to provide information about parent education.⁴

With the exception of the measures of last grade earned in each of four subjects (described below), we use listwise deletion to address item nonresponse. This procedure leaves us with 12,522 for most of the analyses of college-going *habitus*. While we doubt missing values are missing completely at random, OLS regression is fairly robust to violations of this assumption (Allison 2002). Models using dummy substitution rather than listwise deletion increased our sample size to over 18,000 but yielded substantively identical results to those we present here.

In 2004 THEOP attempted to resurvey a stratified random sample of 3,000 base year respondents with adequate permissions and identifying information. Students were surveyed by phone in the spring of 2004, when most of them would have been seniors in high school. Of

⁴ Item nonresponse increased fairly monotonically over the survey instrument and, unfortunately, the parent education items appeared near the end of the survey.

those students successfully contacted, about 75% completed the screener adjudicating among the strata into which they might fall. The final response rate among those completing the screener and eligible for inclusion in the sample was around 72%. As was the case with analyses of the base year data, we use dummy substitution to deal with missingness (with the exception of prior grades) and listwise deletion otherwise. We use base year characteristics for all independent variables in the senior year equations. The analytic sample for these models includes 1,944 students. We estimate all models with sample weights constructed by THEOP to adjust for unequal probabilities of selection and, in the case of the senior follow up, sample attrition, and we adjust the standard errors of our estimates for clustering at the (base year) school level.

Measures

Our measure of *habitus* is based on student responses to the following question: When did you first think about going to college? Students could indicate that they had “always wanted to go to college” or had first thought about going to college during elementary school, middle school, freshman year, sophomore year or never. Our measure collapses these latter categories to create a dichotomous indicator that distinguishes students with an enduring college habitus (who always wanted to go to college) from those without. Students who indicated that they would either *like to go* no further than high school graduation or that they *expected to go* no further than high school graduation (about 8% of students responding to one of these questions) were not asked when they first thought about going to college, and therefore are excluded from analysis. Measures of social origin include student race/ethnicity, nativity, citizenship, whether the student lives with both parents, parent education, whether or not each parent was employed at any time in the month leading up to the survey and whether the primary language the student speaks to her parents is English. Student race/ethnicity was collected based on a single question combining

racial and ethnic origin and recoded into white, African American, Mexican/Mexican American/Chicano, Asian/Pacific Islander and other. Parent education is based on the higher of the levels of the two parents in two parent families and the sole parent/guardian otherwise. We recode parent education to distinguish among those with less than a high school education, a high school diploma, any postsecondary schooling but less than a bachelor's degree, and a bachelor's degree or more.⁵ We also include a control for students' sex.

To distinguish those with relatively uninformed postsecondary expectations from those engaged in activities to increase their likelihood of successfully completing a postsecondary degree we also adjust for measures of students' postsecondary preparation. These measures of preparatory commitment include the student's most recent grade in math, English/languages arts, social studies and science; whether or not the student has taken the PSAT or PACT; and whether or not the student has taken or was at the time of the survey enrolled in algebra II. Grades were collected on an ordinal scale and recoded to the approximate grade point value for each level on a four-point scale.⁶

To evaluate the role of college-going *habitus* in actual college-going behavior we evaluate the association between *habitus* and other student and school characteristics with the probability that a student applies to at least one four-year college by the spring of her senior year. This latter measure is derived from the wave two sophomore survey. Parallel analyses of the probability of applying to *any* college yielded substantively identical results, largely due to the concentration of four-year colleges among the colleges to which students had applied at the time

⁵ Among student participating in the second wave of the survey, 38% reported a different level of parent education in wave two than they did in wave 1. Results using both measures, however, are substantively similar and statistically indistinguishable.

⁶ Analyses using dummy coding for the each grade measure failed to improve model fit over the interval/ratio coding.

of survey. Roughly 90% of all colleges to which students reported applying granted baccalaureate degrees.

We rely on two sets of measures to capture elements of organizational *habitus* related to college attendance. Unfortunately, these data are only available for students attending public schools in Texas, resulting in a loss of 14 secondary schools, about 15% of all schools in the sample. Since these schools are comparatively small, their exclusion reduces the sample of students by only about 2%. The first set of measures reflects the preparatory commitment of students attending each of the schools for which we have data. To ensure that these proxies reflect properties of the school rather than the students in our sample, we base each of these measures on the outcomes experienced by students two years ahead of those included in our analytic sample. The school's four-year graduation rate is taken from school reports to the Texas Education Agency (TEA) and represents the percentage of first-time 1997-1998 high school freshman that completed high school in the 2001-2002 school year. We also include estimates of the percentage of students who plan to attend college and the percentage of students taking AP courses. These indicators reflect the behavioral orientation of students attending each high school toward higher education, with schools with higher completion rates, higher average levels of college aspirations and higher rates of AP course-taking evidencing a stronger college-going culture.

Our second set of measures reflects actual college attendance decisions made by students who graduated from each public high school in the 2001-2002 school year (the year in which our sample members were sophomores). TEA reports the number of graduates from each public high school attending each public college in Texas by graduating cohort. We coded colleges as elite four-year colleges (Texas A&M and UT-Austin), four-year colleges more generally and two-year

colleges (including community and junior colleges as well as technical colleges offering only associates degrees or certificates). For each high school we then estimated the percentage of 2002 graduates pursuing each postsecondary pathway in the year following their high school graduation (2002-2003).

This second set of estimates speaks directly to the supposed product of a school's college going culture. If there is such a thing as a college-going culture (or organizational *habitus* geared toward promoting college attendance) it should exert its influence at the school level, leading students attending more collegiately focused schools to enjoy a greater likelihood of college attendance than otherwise similar students attending schools with lower level of organizational *habitus*. However, these estimates only reflect the college attendance of students in the year after high school graduation at public institutions in the state of Texas. While a large share (and perhaps even the majority) of high school graduates who attend college will do so the year after graduating and in the state in which they completed high school, many college attendees will chose private or out-of-state institutions while others will delay attendance for a year or more.

Findings

We first show results from the linear probability model in Table 1 predicting the probability of possessing a college *habitus*. Each model is weighted using the sample weights included and THEOP with standard errors adjusted for clustering within secondary schools. We include estimates from comparable logistic regression models in Appendix A.⁷

Turning first to Model 1 (labeled 'SES'), we find a striking gender difference in college going *habitus*. Girls are about 19 percentage points more likely than boys to have always

⁷ In results not shown we also produced average marginal effects based on the logit models. These average marginal effects are substantively identical to the estimates based on the linear probability model.

believed that they would attend college (give or take 3 percentage points). This difference in the college choice process, with girls much less likely to ‘choose’ to go to college than boys (and more likely to assume that they will do so) may help account for the emerging gender gaps in postsecondary participation and completion.⁸

The probability of having a college going *habitus* is insensitive to the presence of a father or male guardian but is sensitive to patterns of paternal employment; children of fathers who worked in the month before the survey are about eight percentage points more likely to have always believed that they would eventually attend college than children of fathers who did not work in the previous month (± 3.6 percentage points).

Parental education exerts an enormous amount of influence on the timing of college aspirations. Compared to children of parents who completed high school but never attended college, children of parents with at least a bachelor’s degree are around 20 percentage points more likely to have a college-going *habitus* (\pm about 4 percentage points). Children of parents who failed to complete high school, on the other hand, are about seven percentage points less likely than children of high school graduates to hold a lifelong expectation of postsecondary attendance (± 5 percentage points).

Net of parental employment and education we still find modest racial/ethnic differences in the probability of always believing one will attend college. African American students are around six percentage points less likely than non-Hispanic whites to hold a deep-seated college *habitus* (± 4 percentage points) while Latino students are around seven to eight percentage points less likely to do so (\pm about 5 percentage points). Although the native-born are about six

⁸ Of course one would need to control for gender differences across cohorts to build an argument that part of the growing gender gap is attributable to college *habitus*. We are exploring these gender differences further in another paper.

percentage points more likely to assume from a young age that they will attend college (± 5 percentage points), citizenship has virtually no effect at all net of nativity. This is potentially problematic since students who are not United States citizens face many additional barriers to college entry and persistence than do citizens. Non-citizens are among the most disadvantaged students in a college-for-all world; even if they adequately prepare themselves for college they have many fewer options for financing their education than do citizens.

Finally, as one would anticipate, children who have always believed that they would attend college also tend to do better in school, take more advanced math classes and are more likely to take the precursor to the SAT or ACT (column 3, labeled ‘achievement’). In Morgan’s (2006) terms, these students are transforming the prefigurative commitment they exhibit by their temporally unbound beliefs that they will attend college into preparatory commitment, or action in the service of their educational goals. These actions mediate the association between background characteristics and college *habitus*, but substantial ascriptive differences remain. Even net of preparatory actions, girls are almost 17 percentage points more likely to assume that they will attend college than are boys (± 3 percentage points). Likewise, children of parents with at least a college education remain around 14 percentage points more likely to have always assumed that they would attend college than children of high school graduates (\pm about 4 percentage points) even after adjusting for the advantages they enjoy in academic preparation and achievement in high school.

The importance of a college-going culture

Turning to the role of organizational habitus, school fixed effects models (not shown) suggest that around 2% of the variance in college-going *habitus* is associated with differences among schools net of individual controls. We entered measures of school preparatory

commitment and college attendance patterns separately, restricting our sample to the 11,880 sample members attending schools for which we had valid information on these indicators (a loss of about 5% of the sample). We also included all individual level controls in each model.⁹

We find virtually no evidence to support the contention that variation in the college-going culture of the schools our sample members attend contributes to their college-going *habitus*. Coefficients for these organizational attributes (shown in Table 2) are generally small in magnitude and, with one exception, fail to attain statistical significance. Each percentage increase in the proportion of students who report that they plan to attend college is associated with a 0.4 percentage point increase in the probability of having a college-going *habitus*, give or take almost 0.4 percentage points. Standardizing on the independent variables, the coefficient for proportion of students reporting college plans is 7.2 (\pm about 7.1).

Habitus and the decision to apply to college

Thus far we have demonstrated the fairly substantial relationship between social origin and college-going *habitus* on the one hand and the tenuous relationship between schools and college-going *habitus* on the other. But does college-going *habitus* work to advantage some and disadvantage others on the pathway to higher education or is it largely irrelevant to postsecondary behavioral outcomes? To answer this question we estimate a series of linear probability models predicting whether or not sample members reported applying to any four-year college by the spring of their senior year in high school. We include estimates from a parallel series of logistic regression models in Appendix B.

⁹ One might worry that individual-level measures of achievement, including grades, taking algebra two and taking the PSAT or PACT are endogenous to organizational *habitus*. In models not shown we removed the achievement measures and found results virtually identical to those presented here.

The marginal association between college-going *habitus* and actual application behavior is substantial: those who have always assumed that they would go to college are almost 18 percentage points more likely to apply to a baccalaureate-granting institution than those who make a conscious decision to attend (± 5 percentage points; see Table 3). Adding measures of socioeconomic origin to the model reduces the estimated conditional association of *habitus* with college application by about a third. The association between social origins and application behavior is quite substantial net of college-going *habitus*, with children of college graduates enjoying about a 25 percentage point advantage in their probability of applying to a four-year college over children of parents whose highest level of education is high school. The advantage of coming from a family in which one or both parents have a bachelor's degree is roughly twice the advantage of having a college-going *habitus*.

There appear to be few substantial or statistically significant racial/ethnic differences in the conditional probability of college application (Column 3). However, the estimates from the final model of Table 3 suggest that racial/ethnic differences in application behavior are suppressed by differences in academic achievement and college preparatory commitment. Net of differences in secondary school academic experiences, African American and Mexican/Chicano students are about 10 percentage points more likely to apply to a four-year college than otherwise similar non-Hispanic white students.

Even adjusting for variation in socioeconomic origins, race/ethnicity, nativity, citizenship and preparatory commitment, we find that students with a college-going *habitus* continue to enjoy a modest five-percentage-point advantage in their probability of applying to a four-year college over those who make a conscious decision to attend (± 4.6 percentage points). This suggests that the association between *habitus* and college application behavior is at least in part

independent of both social origins and secondary school experiences, undermining a strictly reproductionist interpretation of the role a college-going *habitus* plays in educational attainment.

In a final set of models we revisit the question of whether or not organizational *habitus* has an impact on patterns of college attendance net of students attributes. Less than 1% of the variance in the probability of applying to a four-year college is between schools net of social origins, race/ethnicity and college-going *habitus*. Controlling for various measures of organizational *habitus* has relatively little bearing on the college-going *habitus* coefficient, as shown in Table 4.¹⁰ Point estimates for our indicators of organizational *habitus* are small in magnitude and not uniform in their significance or valence. When coefficients do attain statistical significance they are sometimes signed in counterintuitive ways. For example, each percentage point increase in a high school's four-year graduation rate is associated with a 0.7 percentage point *decline* in the conditional probability of applying to a four year college (± 0.6 percentage points). On the other hand, each percentage point increase in the share of students taking AP classes is associated with a 0.4 percentage point *increase* in the conditional probability of applying to a four year college (± 0.4 percentage points). Surprisingly, the shares of students attending a public four-year college and a public two-year college are negatively associated with the conditional probability of applying to a four-year college at 0.4 and 0.5 percentage points respectively (\pm about 0.4 percentage points). The share of students attending one of Texas's elite public flagships is not significantly associated with the probability of applying to a four-year college net of individual attributes.

¹⁰ Each model in Table 4 also controls for the full set of individual-level predictors: social origins, race/ethnicity, nativity and preparatory commitment. Models excluding measures of preparatory commitment yielded virtually identical results.

Discussion

Although the substantial majority of high school students expect to attend college, we contend that the trajectories they follow in forming those intentions matters. Some students go through life simply assuming they will attend college. They do not arrive at the application decision by carefully weighing the costs and benefits of a postsecondary credential but rather by default; attending college is something they always just assumed would happen to them. Other students, however, engage in a more (self) conscious process of educational choice. They recall a time when they decided to attend college, suggesting that such a pathways was not a foregone conclusion. They either had not formed expectations about their education futures up to that decision point or had expected to attain less than a college education.

Building on the work of Pierre Bourdieu and others in the educational reproduction literature, we anticipated that social origins, race/ethnicity, nativity and citizenship would contribute substantially to the probability that students assumed from a young age that they would attend college, an assumption we argue is indicative of a college-going *habitus*. We also suggested that these background characteristics would operate largely through the college-going *habitus* to influence the probability that students actually attend a four-year college or university, taking application as an indicator of attendance. Borrowing from McDonough's (1987) insights into organizational *habitus* and the work of others on the importance of a 'college-going culture,' we expected to observe variation in the probability of having a college-going *habitus* and applying to college across schools net of student characteristics. Our expectations are only partially supported by our analyses.

We find that social origins do exert a substantial degree of influence in the probability of adopting a college-going *habitus* (Table 1). Native born children of college graduates living in

households in which the male head is employed enjoy a substantially higher probability of having a college-going *habitus* than other children. Conditional on social origins, preparatory commitment (as measured by academic performance, course taking and taking the PSAT or PACT) is also associated with a college-going *habitus*.

On the other hand, race/ethnicity is not very strongly associated with the probability of having a college-going *habitus* conditional on other social origin characteristics (and even less so conditioning on preparatory commitment). Likewise, we find little evidence to support the notion that a college-going culture or organizational *habitus* contributes to the timing of students' postsecondary educational expectation formation (Table 2). Furthermore, we account for a modest 14% of the variance in college-going *habitus* with our linear models. Possessing a college-going *habitus* is influenced but far from determined by social origin characteristics.

Habitus exerts some influence on the probability that students apply to a baccalaureate-granting institution during their senior year of high school, suggesting that the construct is more than merely symbolic in its importance. Students with a college-going *habitus* are roughly ten percentage points more likely to apply to a four-year college than others conditional on social origin characteristics and about five percentage points more likely to do so conditioning on preparatory commitment (which may be partly endogenous to college-going *habitus*).

Nonetheless, the advantages parents pass on to their children are largely independent of children's college-going *habitus*. Even net of preparatory commitment, the advantage children of college-educated parents enjoy over otherwise similar children of high school graduates is roughly three times the advantage those with a college-going *habitus* hold over students who make a conscious decision somewhere along the road to attend college.

Organizational *habitus* has little bearing on students' college application decisions. In fact, while school-level indicators of high school preparatory commitment have contradictory influences on college application behavior, the net association between the attendance behavior of earlier cohorts of students and application behavior of our sample members is negative (Table 4). We do not make much of these negative coefficients both because of their magnitude and the trivial share of variance in the probability of applying to a four-year college across high schools conditional on student attributes. That said, the evidence we present undermines claims that organizational *habitus* is an important component of student postsecondary enrollment decisions.

While these findings in general temper claims as to the importance of organization *habitus* in patterns of postsecondary attendance, we read our evidence as tentative. First, as noted at the outset of this paper, we have relatively few empirical studies of any sort on which to build to understand how *habitus* shapes postsecondary outcomes. In fact, ours is the only quantitative study of which we are aware to explore this topic. Second, we rely on a single-item indicator of student college-going *habitus*. Assuming the indicator is valid, it is still much less reliable than a set of indicators would be. As a result, we likely overstate standard errors in models predicting individual college-going *habitus* (including standard errors around organizational *habitus* coefficients) and understate the influence of college-going *habitus* on college application behavior. Finally, we have a relatively small sample of schools on which to base our evaluation of the role of organizational *habitus* (n=77). A larger sample of schools would give us more power to identify the association between organizational *habitus* and individual outcomes.¹¹

¹¹ We should note, however, that our sample of 77 schools is appreciably larger than the sample of four schools on which McDonough (1997) based her work.

Conclusion

Many theories of educational stratification assume students make conscious decisions about their educational futures, weighing the costs and benefits of alternative pathways. In the case of postsecondary attendance, however, this is not necessarily so. Many students believe from a young age that they will attend college as a natural part of their development. They do not consciously weigh the costs and benefits of that decision any more than they weigh the costs and benefits of attending primary or middle school. Students with what we term a college-going *habitus* take for granted that they will continue their formal education past high school.

The fact that the decision to attend college is for many students a non-decision need not imply that it is irrational. Given the degree to which the college-for-all ethos has penetrated our culture and the substantial economic returns to postsecondary credentials and course taking, attending college may be quite rational, at least in a bounded sense. Likewise, most students with a college-going *habitus* probably engage in a conscious process in deciding *where* to apply to college and where ultimately to attend. The application and attendance processes may be affected by organizational *habitus* in ways consistent with McDonough (1997) that we do not observe here.

That said, we believe that if researchers want to understand how students go about deciding whether or not to end their education at high school they must adjudicate between those who consciously make such a decision and those who do not. As a matter of policy, we think that encouraging a college-going culture may be more important in the early years, fostering the evolution of a college-going *habitus* among children, than in the secondary school years. Practices to encourage such an orientation among students may be as simple as normalizing

college attendance by making college a more familiar concept to students, particularly those from less socioeconomically advantaged families.

On the other hand, many students enter college inadequately prepared, with little understanding of the level of preparation and work necessary to successfully complete a degree. Sowing the seeds of a college-going *habitus* may therefore have mixed effects, encouraging preparatory commitment and improving educational outcomes among some while fostering the evolution of naively optimistic postsecondary beliefs among others. Improving the organizational *habitus* of primary schools is not without risk.

On a theoretical level, our findings offer qualified support to reproductionist theories of educational stratification. Social origins do contribute to variation in the probability of adopting a college-going *habitus*. Children of more highly educated parents enjoying a markedly higher probability of taking their college attendance for granted rather than making a conscious decision to attend. Variation in preparatory commitment mediates only a small share of the origin-*habitus* relationship we observe.

However, a college-going *habitus* is not restricted to the children of the most educated parents. The social origin characteristics we observe, while limited, account for a fairly modest share of the variance in the probability of possessing a college-going *habitus*. Furthermore, models of college application allowing for the interaction of *habitus* and social origin characteristics did not improve prediction above models restricted to main effects. College-going *habitus* appear to enhance the probability of applying to a four-year college for more and less advantaged students in similar ways, leaving open the possibility that increases in college-going *habitus* among disadvantaged youth could undermine rather than reinforce social stratification.

Rather than a strictly reproductive force, *habitus* may also act to enhance the capacity of disadvantaged students to resist social reproduction along the lines advocated by Giroux ,

Several scholars have warned against an overly rigid reading of Bourdieu's work . In fact, it is not surprising that *some* disadvantaged students affect a college-going *habitus* and enjoy its benefits. Without occasional working class 'success stories' the system by which schools reproduce class might be seen by some as illegitimate. Our reading of Bourdieu, however, is that these success stories should be sufficiently unusual as to perpetuate the myth of the meritocracy without permitting any meaningful degree of social mobility. They are not. Advantage is reproduced through college-going *habitus* but not very effectively. Many disadvantaged students assume from a young age that they will attend college. This college-going *habitus* has the same conditionally modest beneficial effect on applying to a four-year college for advantaged and disadvantaged students alike.

Bourdieu's insights into social stratification have produced a wealth of scholarship. There have been relatively few empirical studies of how his insights apply to higher education, however, and almost no studies using representative samples and quantitative techniques. We find that Bourdieu's insights into *habitus* have merit as they apply to assumptions about educational attainment, but that college-going *habitus* can serve simultaneously to enhance and undermine social reproduction. Although we find little evidence in support of claims about the importance of organizational *habitus* or a 'college-going culture' for students' postsecondary careers, we recognize that our indicators of these constructs are imperfect. Given the very small share of between school variation in either college-going *habitus* or the conditional probability of attending college, however, we think efforts to enhance the organizational *habitus* of secondary schools may be misplaced.

- Allison, Paul D. *Missing Data*. Edited by Michael S. Lewis-Beck. Vol. 136, *Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: Sage Publications, 2002.
- Apple, Michael, and Lois Weis. "Ideology and Practice in Schooling: A Political and Conceptual Introduction." In *Ideology and Practice in Schooling*, edited by Michael Apple and Lois Weis, 3-33. Philadelphia: Temple University Press, 1983.
- Bound, John, Matt Lovenheim, and Sarah Turner. "Understanding Changing College Completion Rates." In *Population Studies Center Research Reports*. Ann Arbor: University of Michigan Institute for Social Research, 2007.
- Bourdieu, Pierre, and Jean-Claude Passeron. *Reproduction in Education, Society and Culture*. Translated by Richard Nice. London: Sage Publications, 1990.
- Bozick, Robert, and Erich Lauff. "Education Longitudinal Study of 2002 (Els:2002): A First Look at the Initial Postsecondary Experiences of the High School Sophomore Class of 2002." Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2007.
- Breen, Richard, and John H. Goldthorpe. "Explaining Educational Differentials: Towards a Formal Rational Action Theory." *Rationality and Society* 9, no. 3 (1997): 275-305.
- Buchmann, Claudia, and Thomas DiPrete. "The Growing Female Advantage in College Completion: The Role of Family Background and Academic Achievement." *American Sociological Review* 71, no. 4 (2006): 515-41.
- Cunha, Flavio, James J. Heckman, and Salvador Navarro. "Separating Uncertainty from Heterogeneity in Life Cycle Earnings." National Bureau of Economic Research, 2005.
- Giroux, Henry A. "Theories of Reproduction and Resistance in the New Sociology of Education: A Critical Analysis." *Harvard Educational Review* 53, no. 3 (1983): 257-93.
- Goldin, Claudia, and Lawrence Katz. *The Race between Education and Technology*. Cambridge: The Belknap Press of Harvard University Press, 2008.
- Goldin, Claudia, Lawrence Katz, and Ilyana Kuziemko. "The Homecoming of American College Women: The Reversal of the College Gender Gap." *Journal of Economic Perspectives* 20, no. 4 (2006): 133-56.
- Goyette, Kimberly A. "College for Some to College for All: Social Background, Occupational Expectations, and Educational Expectations over Time." *Social Science Research* 37, no. 2 (2008): 461-84.
- Grodsky, Eric, and Erika Jackson. "Social Stratification in Higher Education." *Teachers College Record* (Forthcoming).
- Grubb, W. Norton. "Learning and Earning in the Middle, Part I: National Studies of Pre-Baccalaureate Education." *Economics of Education Review* 21, no. 4 (2002): 299-321.
- Heckman, James J., Lance J. Lochner, and Petra E. Todd. "Earnings Functions and Rates of Return." In *NBER Working Paper Series*. Cambridge, 2008.
- Kane, Thomas J., and Cecilia Elena Rouse. "Labor-Market Returns to Two and Four Year College." *The American Economic Review* 85, no. 3 (1995): 600-14.
- Lareau, Annette. "Social Class Differences in Family-School Relationships: The Importance of Cultural Capital." *Sociology of Education* 60, no. 2 (1987): 73-85.
- Manski, Charles F. "Schooling as Experimentation: A Reappraisal of the Postsecondary Dropout Phenomenon." *Economics of Education Review* 8, no. 4 (1989): 305-97.

- McDonough, Patricia M. *Choosing Colleges: How Social Class and Schools Structure Opportunity*. Albany: State University of New York Press, 1997.
- Mills, Carmen. "Reproduction and Transformation of Inequalities in Schooling: The Transformative Potential of the Theoretical Constructs of Bourdieu." *British Journal of Sociology of Education* 29, no. 1 (2008): 79-89.
- Morgan, Stephen L. *On the Edge of Commitment: Educational Attainment and Race in the United States*. Palo Alto: Stanford University Press, 2005.
- Oakes, Jeannie. "Ensuring Equity in College Preparation: What K-16 Partnerships Can Do." *Teaching to Change LA* 3, no. 1-7 (2004).
- Perna, Laura W. "Studying College Access and Choice: A Proposed Conceptual Model." *Higher Education: Handbook of Theory and Research* 21 (2006): 99-157.
- Person, Ann E., James E. Rosenbaum, and Regina Deil-Amen. "Student Planning and Information Problems in Different College Structures." *Teachers College Record* 108, no. 3 (2006): 374-96.
- Reay, Diane. "'Always Knowing' and 'Never Being Sure': Familial and Institutional Habituses and Higher Education Choice." *Journal of Education Policy* 13, no. 4 (1998): 519-29.
- . "'It's All Becoming a Habitus': Beyond the Habitual Use of Habitus in Educational Research." *British Journal of Sociology of Education* 25, no. 4 (2004): 421-44.
- Reay, Diane, Miriam E. David, and Stephen Ball. *Degrees of Choice: Social Class, Race, Gender and Higher Education*. Sterling: Trentham, 2005.
- Reynolds, John, Michael Stewart, Ryan MacDonald, and Lacey Sischo. "Have Adolescents Become Too Ambitious? High School Seniors' Educational and Occupational Plans, 1976 to 2000." *Social Problems* 53, no. 2 (2006): 186-206.
- Rosenbaum, James E. *Beyond College for All: Career Paths for the Forgotten Half*. New York: Russell Sage Foundation, 2001.
- Snyder, Thomas D., Sally A. Dillow, and Charlene M. Hoffman. "Digest of Education Statistics 2006." Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2007.
- Texas Higher Education Opportunity Project. "Texas Higher Education Opportunity Project (Theop) Baseline Survey Methodology Report." Princeton: Princeton University, 2003.

Table1: Linear estimates of the probability of having a college-going *habitus*

	SES	ethnicity/ nativity	achievement
female	0.194*** (0.014)	0.193*** (0.014)	0.169*** (0.014)
mother/female guardian present	0.068* (0.028)	0.069* (0.028)	0.039 (0.023)
father/male guardian present	0.004 (0.016)	-0.006 (0.018)	-0.017 (0.018)
<i>Worked last month</i>			
mother/female head	0.004 (0.015)	-0.001 (0.016)	0.001 (0.016)
father/male head	0.083*** (0.018)	0.076*** (0.018)	0.052** (0.018)
<i>Parental education</i>			
<HS	-0.067** (0.025)	-0.045 (0.027)	-0.033 (0.025)
some college/AA	0.085*** (0.017)	0.080*** (0.016)	0.054*** (0.015)
bachelors	0.190*** (0.021)	0.174*** (0.019)	0.120*** (0.020)
graduate/professional	0.244*** (0.020)	0.223*** (0.018)	0.162*** (0.017)
<i>Race/ethnicity</i>			
African American		-0.062** (0.021)	-0.012 (0.022)
Mexican/Chicano		-0.077*** (0.019)	-0.044* (0.021)
Other Latino		-0.071** (0.027)	-0.047 (0.028)
Asian/Pacific Islander		0.067* (0.026)	0.035 (0.026)
other		-0.006 (0.054)	0.015 (0.055)
<i>Nativity</i>			
born in US		0.062* (0.025)	0.072** (0.024)
citizen		-0.017 (0.025)	0.010 (0.022)
Non-English parent		0.029	0.028

Table1: Linear estimates of the probability of having a college-going *habitus*

		(0.018)	(0.019)
<i>Most recent grade</i>			
English/language arts			0.042*** (0.007)
math			0.030*** (0.006)
history/soc studies			0.024*** (0.007)
science			0.016* (0.008)
took algebra II			0.088*** (0.018)
taking algebra II			0.076*** (0.012)
took the PSAT/PACT			0.047*** (0.012)
constant	0.156*** (0.036)	0.150*** (0.041)	-0.172*** (0.050)
N	12522	12522	12522
r2	0.09	0.10	0.14
BID	17080	17055	16619

Table 2: Linear estimates of the probability of having a college-going *habitus*

	preparatory commitment	college attendance
4 year grad rate (1997-98 freshman)	-0.002 (0.001)	
% taking AP course	0.001 (0.001)	
% college plans	0.001* (0.000)	
% grads attending 4yr college		-0.001 (0.001)
% grads attending 2 yr college		-0.001 (0.000)
% grads attending UT/A&M		0.003** (0.001)
constant	0.153* (0.077)	0.076 (0.041)
N	11880	11880

Table 3: Linear estimates of the probability of applying to a four-year college

	marginal	SES	ethnicity/ nativity	achievement
college habitus	0.178*** (0.025)	0.114*** (0.021)	0.121*** (0.021)	0.060* (0.023)
female		0.061 (0.043)	0.061 (0.039)	0.034 (0.033)
mother/female guardian present		0.079 (0.053)	0.083 (0.053)	0.029 (0.052)
father/male guardian present		0.069 (0.037)	0.066 (0.037)	0.040 (0.030)
<i>Worked last month</i>				
mother/female head		0.028 (0.032)	0.038 (0.031)	0.039 (0.028)
father/male head		0.018 (0.038)	0.014 (0.039)	-0.034 (0.037)
<i>Parental education</i>				
<HS		-0.079 (0.060)	-0.094 (0.067)	-0.059 (0.051)
some college/AA		0.130* (0.055)	0.134* (0.055)	0.109* (0.043)
bachelors		0.231*** (0.036)	0.232*** (0.040)	0.189*** (0.038)
graduate/professional		0.275*** (0.043)	0.278*** (0.046)	0.199*** (0.038)
<i>Race/ethnicity</i>				
African American			0.005 (0.043)	0.097* (0.040)
Mexican/Chicano			0.051 (0.037)	0.104** (0.034)
Other Latino			0.052 (0.064)	0.055 (0.056)
Asian/Pacific Islander			0.128* (0.064)	0.080 (0.048)
other			-0.123 (0.133)	-0.059 (0.103)
<i>Nativity</i>				
born in US			-0.053 (0.072)	-0.028 (0.065)
citizen			0.006 (0.073)	0.048 (0.068)

Table 3: Linear estimates of the probability of applying to a four-year college

English not primary language with parent			-0.029 (0.045)	-0.013 (0.041)
<i>Most recent grade</i>				
English/language arts				0.013 (0.024)
math				0.043* (0.017)
history/soc studies				0.071*** (0.019)
science				0.022 (0.016)
took algebra II				0.216*** (0.036)
taking algebra II				0.193*** (0.042)
took the PSAT/PACT				0.091** (0.027)
constant	0.538*** (0.027)	0.247*** (0.069)	0.274* (0.108)	-0.178 (0.133)
N	2038	2038	2038	2038
r2	0.03	0.11	0.12	0.24
bid	2763	2663	2699	2494

Table 4: Linear estimates of the probability of applying to a four-year college

	random effects	preparatory commitment	college attendance
college habitus	0.060** (0.021)	0.062** (0.021)	0.060** (0.021)
4 year grad rate 1997-98 freshman		-0.004* (0.002)	
% taking AP course		0.004** (0.001)	
% college plans		0.000 (0.001)	
% grads attending 4yr college			-0.001 (0.001)
% grads attending 2 yr college			-0.002* (0.001)
% grads attending UT/A&M			-0.001 (0.003)
constant	-0.208* (0.086)	0.122 (0.181)	-0.118 (0.097)
N	1944	1944	1944
r2	.	.	.
bid	.	.	.

Appendix A: Odd ratios for having a college-going *habitus*

	SES	ethnicity/ nativity	achievement
female	2.250*** [2.089,2.423]	2.259*** [2.097,2.434]	2.122*** [1.965,2.291]
mother/female guardian present	1.157 [0.991,1.351]	1.157 [0.990,1.352]	1.071 [0.914,1.255]
father/male guardian present	1.048 [0.950,1.155]	1.001 [0.906,1.106]	0.948 [0.856,1.049]
<i>Worked last month</i> mother/female head	1.037 [0.951,1.131]	1.025 [0.938,1.119]	1.035 [0.946,1.133]
father/male head	1.379*** [1.236,1.538]	1.343*** [1.203,1.500]	1.242*** [1.110,1.390]
<i>Parental education</i> <HS	0.698*** [0.613,0.795]	0.737*** [0.642,0.846]	0.767*** [0.666,0.883]
some college/AA	1.387*** [1.244,1.546]	1.369*** [1.227,1.528]	1.266*** [1.132,1.416]
bachelors	2.277*** [2.031,2.552]	2.150*** [1.914,2.415]	1.782*** [1.581,2.008]
graduate/professional	2.657*** [2.365,2.986]	2.477*** [2.198,2.791]	1.963*** [1.735,2.221]
<i>Race/ethnicity</i> African American		0.795*** [0.703,0.899]	0.955 [0.841,1.083]
Mexican/Chicano		0.732*** [0.660,0.813]	0.813*** [0.730,0.905]
Other Latino		0.703*** [0.583,0.848]	0.778** [0.643,0.941]
Asian/Pacific Islander		1.221 [0.987,1.512]	1.057 [0.849,1.315]
other		0.771** [0.642,0.926]	0.839 [0.696,1.012]
<i>Nativity</i> born in US		1.255* [1.054,1.494]	1.254* [1.050,1.497]
citizen		0.974 [0.792,1.199]	1.046 [0.848,1.291]
Non-English parent		1.184** [1.045,1.341]	1.180* [1.038,1.340]

Appendix A: Odd ratios for having a college-going *habitus*

<i>Most recent grade</i>			
English/language arts			1.170*** [1.110,1.233]
math			1.142*** [1.091,1.195]
history/soc studies			1.141*** [1.081,1.205]
science			1.087** [1.032,1.145]
took algebra II			1.271*** [1.109,1.455]
taking algebra II			1.406*** [1.281,1.542]
took the PSAT/PACT			1.239*** [1.139,1.348]
constant	0.271*** [0.224,0.329]	0.272*** [0.210,0.353]	0.063*** [0.046,0.088]
N	12522	12522	12522
BID	-1074	-1074	-1456

Appendix B: Odds ratios for applying to a four-year college

	marginal	SES	ethnicity/ nativity	achievement
college habitus	2.166*** [1.740,2.696]	1.709*** [1.392,2.098]	1.782*** [1.446,2.195]	1.430** [1.119,1.828]
female		1.342 [0.902,1.997]	1.349 [0.932,1.951]	1.211 [0.855,1.716]
mother/female guardian present		1.420 [0.894,2.255]	1.461 [0.909,2.348]	1.119 [0.668,1.875]
father/male guardian present		1.384 [0.995,1.924]	1.366 [0.976,1.911]	1.272 [0.934,1.732]
<i>Worked last month</i> mother/female head		1.146 [0.856,1.535]	1.197 [0.897,1.598]	1.213 [0.894,1.644]
father/male head		1.079 [0.768,1.515]	1.068 [0.746,1.528]	0.833 [0.562,1.233]
<i>Parental education</i> <HS		0.719 [0.437,1.185]	0.666 [0.374,1.188]	0.776 [0.477,1.264]
some college/AA		1.721* [1.090,2.718]	1.764* [1.128,2.757]	1.662* [1.124,2.459]
bachelors		2.836*** [2.040,3.943]	2.866*** [2.009,4.088]	2.639*** [1.753,3.974]
graduate/professional		3.709*** [2.450,5.615]	3.803*** [2.476,5.842]	3.053*** [2.000,4.661]
<i>Race/ethnicity</i> African American			1.022 [0.674,1.550]	1.747** [1.153,2.647]
Mexican/Chicano			1.283 [0.908,1.814]	1.817** [1.244,2.655]
Other Latino			1.331 [0.725,2.444]	1.383 [0.774,2.474]
Asian/Pacific Islander			2.329 [0.948,5.723]	2.203* [1.002,4.846]
other			0.568 [0.177,1.828]	0.787 [0.288,2.151]
<i>Nativity</i> born in US			0.767 [0.383,1.536]	0.895 [0.455,1.760]
citizen			1.018 [0.498,2.081]	1.329 [0.647,2.730]

Appendix B: Odds ratios for applying to a four-year college

English not primary language with parent			0.862 [0.567,1.310]	0.904 [0.586,1.397]
<i>Most recent grade</i>				
English/language arts				1.087 [0.872,1.356]
math				1.262** [1.070,1.489]
history/soc studies				1.446*** [1.186,1.763]
science				1.123 [0.955,1.321]
took algebra II				3.614*** [2.241,5.827]
taking algebra II				2.954*** [1.812,4.815]
took the PSAT/PACT				1.719*** [1.262,2.341]
constant	1.166 [0.944,1.441]	0.311*** [0.169,0.574]	0.350* [0.129,0.951]	0.025*** [0.006,0.098]
N	2038	2038	2038	2038
r2	2634	2539	2574	2369
bid				