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EDUCATIONAL STRATIFICATION AND OBESITY IN MIDLIFE: CONSIDERING THE ROLE OF SEX, SOCIAL CLASS, AND RACE/ETHNICITY

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EDUCATIONAL STRATIFICATION AND OBESITY IN MIDLIFE: CONSIDERING THE ROLE OF SEX, SOCIAL CLASS, AND RACE/ETHNICITY

by

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Dedication

For anyone who has ever smiled through silent pain, cried behind closed doors, or fought battles no one knows about. You are stronger than your struggle.

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Abstract

EDUCATIONAL STRATIFICATION AND OBESITY IN MIDLIFE: CONSIDERING THE ROLE OF SEX, SOCIAL CLASS, AND RACE/ETHNICITY

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Traditional approaches to understanding the link between education and body mass treat schooling as a black box—universally conceptualizing student outcomes in terms of attainment, as reflected by years of schooling completed or highest credential earned. As a result, previous research investigating the relationship between "education" and body mass does not consider some of the more sociological aspects of the process of schooling. To address this gap in the literature, I consider if individual and institutional attributes interact in ways that have the potential to exacerbate or ameliorate educational disparities in body mass. In doing so, I consider the role of sex, race/ethnicity, and social class given that norms about body mass, in particular what is considered ideal or "appropriate", varies across segments of the population. Results based on the sophomore cohort of High School and Beyond (1980) suggest that "what" about education matters for body mass differentials and "why" largely depends on who you ask. In general, educational differentiation only predicted obesity in midlife for women at the top at the academic status hierarchy in high

school and college, whereas among men, it seems that earning good overall grades in high school and graduating from a four-year college, even if at the lowest tier university, are all that matter.

Table of Contents

List of Tables xii

List of Figures xxi

Chapter 1: *Introduction and Background* 1

Introduction 1

Research Aims 9

Conceptal Model 10

Background 12

Oserved Assocation between "Education" and Body Mass 12

Traditional Pathways Linking "Education" to Body Mass 13

Educational Stratification and the Process of Schooling in the U.S. 17

Educational Stratification, Social Norms, and Body Mass Differentials 19

The Role of Selection 21

Chapter 2: *Data and Methods* 25

Data and Sample 25

Data 25

Sample 28

Measurement of Variables 29

Obesity at Midlife 29

Educational Attainment Level and Selectivity 29

Academic Course-taking and Performance in High School 30

Observed Confounding 31

Analytic Strategy 32

Bi-variate and Multivariate Analyses 32

High School Fixed Effects..33

Identifying a Switch Point to Invalidate Inferences...............................34

Descriptive Statistics..35

Chapter 3: *Secondary Schooling and Obesity at Midlife* 39

Introduction..39

Research Questions..41

Methods 41

Results..42

Chapter 4: *Educational Attainment Level and Selectivity and Obesity in Midlife*............61

Introduction..61

Research Questions..62

Methods 62

Results..63

Chapter 5: *Heterogenous Educational Returns to Midlife Obesity* 79

Introduction..79

Research Questions..80

Methods 80

Results..80

Chapter 6: *Discussion and Conclusion* 109

Appendix 111

References 163

List of Tables

Table 1: Descriptive statistics for full analytic sample by sex (SD presented in parentheses)....37

Table 2: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence....49

Table 3: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence....51

Table 4: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment....53

Table 5: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment 55

Table 6: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of high school fixed effects, key demographic factors observed during adolescence, and educational attainment....57

Table 7: AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of high school fixed effects, key demographic factors observed during adolescence, and educational attainment 59

Table 8: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in HS) ...70

Table 9: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in HS)........................72

Table 10: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of high school fixed effects, key demographic factors observed during adolescence, and high school course-taking and academic perfomance...74

Table 11: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of high school fixed effects, key demographic factors observed during adolescence, and high school course-taking and academic performance 76

Table 12: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among white women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)........87

Table 13: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among white men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)........89

Table 14: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among black women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)........91

Table 15: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among black men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)........93

Table 16: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among Hispanic women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)........95

Table 17: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among Hispanic men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 97

Table 18: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 99

Table 19: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 101

Table 20: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 103

Table 21: AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 105

Table 22: AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence 111

Table 23: AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence...113

Table 24: AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence....................115

Table 25: AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence....................117

Table 26: AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment 119

Table 27: AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment 121

Table 28: AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment..123

Table 29: AME from linear probibility models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment..125

Table 30: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 127

Table 31: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 129

Table 32: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)..131

Table 33: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 133

Table 34: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among white women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)....135

Table 35: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among white men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)....137

Table 36: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among black women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)....139

Table 37: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among black men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)....141

Table 38: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among Hispanic women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)....143

Table 39: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among Hispanic men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)..145

Table 40: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 147

Table 41: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)..149

Table 42: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 151

Table 43: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 153

Table 44: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)..155

Table 45: AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)..157

Table 46: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 159

Table 47: AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school) 161

List of Figures

Figure 1: Conceptual Model for Investigating the Effect(s) of Educational Stratification in Secondary and Postsecondary Schooling on Obesity at Midlife..24

Chapter 1: Introduction and Background

Introduction

Body mass has increased among all genders, racial/ethnic backgrounds, ages, and educational levels since the 1980s (Zhang and Wang 2004). As a result, nearly 40 percent of adults in the United States are obese, and roughly 72 percent are either overweight or obese (Ogden et al. 2017). Although the prevalence of obesity—*defined by a body mass index (BMI) of 30 or more*—has increased among all demographic subgroups in recent decades, obesity continues to affect some segments of the population more than others (Arroyo-Johnson and Mincey 2016a). It is well-documented that people who earn a bachelor's degree report lower rates of obesity than their peers who fail to reach this educational milestone (see Kim, Roesler, and Knesebeck 2017).

During midlife—the life-course stage when the mortality risk associated with obesity peaks—bachelor's degree completion serves as the dividing line between the advantaged and disadvantaged with respect to body mass (Mehta and Chang 2009). Recent estimates suggest that four-year college completers are as many as 16 percentage points less likely to be obese during midlife than their less-educated counterparts (Kim 2016), and some evidence suggests that educational disparities in body mass are even larger among individuals who graduate from a selective college or university (Fletcher and Frisvold 2012).

From a social justice perspective, the relationship between bachelor's degree completion and body mass represents a troubling instance of stratification because obese individuals are at a higher risk of developing numerous chronic physical and mental health conditions (Chang, Pollack, and Colditz 2013; Masters et al. 2013). Obesity is also a social and economic liability that leads to a reduction of opportunities in the domains of employment, education, and social relationships (Puhl and Heuer 2010)—particularly among women (Conley and Glauber 2005). Seen through a lens of national economic interest, the consequences of obesity are staggering. The direct medical care costs associated with treating obesity and obesity-related conditions are over $190 billion annually and rising (Rosenthal et al. 2017). Although the individual and societal consequences of obesity are far-reaching, well-established, and growing, critical questions about the link between education and body mass remain unanswered.

Population projections estimate that obesity prevalence will reach record-high levels in the coming years, as cohorts who were teenagers during the 1980s enter midlife (Wang et al. 2008). The link between education and obesity represents a common, serious, and costly—yet potentially modifiable—social problem in contemporary society. As higher rates of obesity become a modern-day reality, gaining a deeper understanding of the relationship between education and body mass is an important task for social scientists.

Traditional approaches to understanding the link between education and obesity treat schooling as a black box—universally conceptualizing "education" in terms of attainment, as reflected by years of schooling completed or highest credential earned (see Kim, Roesler, and Knesebeck 2017). However, as recently paraphrased by Zajacova and Lawrence (2018) in their critical assessment of the current state of health research in the United States:

> "…Attainment although undoubtedly important, is only the end point of an extended and extensive process of formal schooling, where institutional quality, type, content, peers, teachers, and many other individual, institutional, and interpersonal factors shape life course trajectories of schooling and health" (pp. 278).

Indeed, by defining the process of schooling in America using a single snapshot previous research investigating the link between "education" and body mass does not consider some of the more sociological aspects of the process of formal schooling in the United States, such as the extent to which individual and institutional attributes interact in ways that may amplify and/or ameliorate educational disparities in body mass. This aspect of the process of schooling is a potentially important component of the black box of education.

The lack of empirical work studying the *process* of schooling for modern-day obesity differentials is surprising given the long history of research rooted in the sociology of education, which emphasizes the importance of considering educational attainment outcomes not as events, but as the result of a cumulative series of events (Entwisle et al. 2005; Heckman 2006). Research within this tradition suggests that students' pathways into and through postsecondary schooling are the result of their movement through a highly differentiated and increasingly stratified sequence of educational transitions (Coleman et al. 1966; Crosnoe and Muller 2014; Lucas 2001). Parental socioeconomic status is a key social determinant that sets the stage for students' educational experiences, shaping not only attainment level and selectivity, but the entire schooling and social trajectories that drive and result in these disparate outcomes (Lucas 1999). If educational stratification is an important pathway through which students' attainment outcomes shape body mass differentials, then the extant literature may systematically misstate or greatly deemphasize the relationship between "education" and obesity.

Stratification in opportunities to learn are especially pervasive (and consequential) during the high school years—when the sequential curricular pathways leading to higher and more select educational outcomes become increasingly hard to alter (Crosnoe and Schnieder 2010; Gamoran and Hannigan 2000). Although at its core, the high school curriculum is designed to ensure that *all* students complete the basic coursework required to successfully transition to adult roles and responsibilities, curricular differentiation is pervasive (see Kao and Thompson 2003 for a discussion). As a result, some students only complete the courses necessary to earn their high school diploma and little more, while others complete a series of advanced coursework in preparation for college, career, and beyond (Bastedo and Jaquette 2011; Gamoran 1987; Jencks 1968). The crux of the problem is that the determinants of high school course placement, persistence, and performance are far from meritocratic (Attewell and Domina 2008; Fryer and Levitt 2006; Lucas and Berends 2007; Neal and Johnson 1996).

Students begin formal schooling with substantial gaps in vocabulary, numeracy, reading readiness, and general knowledge (Duncan and Magnuson 2011)—skill disparities that tend to widen as youth move through the school system (DiPrete and Eirich 2006; Entwisle et al. 2005; Heckman 2006). Although some evidence suggests that initial gaps do not grow throughout formal schooling (von Hippel and Hamrock 2019; von Hippel, Workman, and Downey 2018), scholars agree that by the time students reach high school, they are disproportionately tracked into more- or less-advanced courses as a result of skill disparities (Kaushal, Magnuson, and Waldfogel 2011; Moller et al. 2010). Race/ethnicity and parental socioeconomic status (SES) are powerful predictors of students' course-taking trajectories in high school, even net of pre-existing differences in course placement and academic performance (Crosnoe and Huston 2007; Kelly 2009; Riegle-Crumb and Grodsky 2010). Given that initial academic disparities tend to widen over time, scholars within the sociology of education argue race/ethnicity and socioeconomic status are central features of educational stratification, tapping into the heritability of academically relevant traits and a range of structural and social advantages (Grodsky and Riegle-Crumb 2010).

More advantaged parents tend to have greater familiarity with navigating the structure of schooling and are able to draw on their knowledge about what needs to happen now to make college completion happen later (Morgan 2005; Lucas and Berends 2002; Schneider 2007). White and high-SES adolescents, therefore, tend to accrue more academic credentials that are attractive to four-year colleges and universities—especially selective ones—than their otherwise similar peers (Adelman 1994; Crosnoe and Schnieder 2010; Schneider et al 1998). At the same time, non-Asian minority and lower income students are disproportionately tracked into less-rigorous courses and are more likely to drop out of high school, further intensifying the role of social origins for educational stratification (Kaushal, Magnuson, and Waldfogel 2011; Moller et al. 2010).

This pattern of cumulative (dis)advantage extends into higher education—adolescents' race/ethnicity and SES both directly and indirectly (through academic antecedents) influence whether they continue on to higher education, the kind of institution they attend (community college versus four-year, selective versus unselective college, etc.), and the likelihood they graduate with a bachelor's degree (Crosnoe and Muller 2014). Taken together, this evidence suggests that the high school years are an integral part of the status attainment process. To date, however, the extent to which the high school years either contribute to or culminates in (through disparate postsecondary outcomes) educational disparities in obesity has not been explored.

In addition to shaping adolescents' postsecondary prospects and outcomes (or lack thereof), the stratification of course-taking opportunities in high school also structures students social interactions by dividing them into different subgroups, characterized by distinct values, norms, and cultures—including those related to body mass and physical appearance (Coleman 1988; Frank et al. 2008; Mueller et al. 2010; Oakes 2005). To the extent that students' secondary and postsecondary outcomes are, on average, a reflection of their racial/ethnic and/or socioeconomic standing within the broader stratification system (Fryer and Levitt 2006; Jencks and Phillips 1998; Neal and Johnson 1996), ideals about what constitutes ideal and "appropriate" body mass likely varies across these contexts. Individuals have an incentive to conform to the aesthetic standards of others with whom they interact socially and identify culturally (Fikkan and Rothblum 2012; Burke and Heiland 2008); thus, elite educational experiences and outcomes may provide a proxy measure of social differentiation (Bourdieu 1987; Coleman 1961; 1988; 1982) and the corresponding weight-related norms and values (Ali et al. 2011; Mueller et al. 2010; Paxton et al. 1999).

Despite the prevalence of obesity in the U.S., it remains a heavily stigmatized characteristic in American society. However, the extent to which obesity is stigmatized—and correspondingly sanctioned—varies across segments of the population. With respect to gender, women are evaluated more negatively and discriminated against more severely than males because culture "allows for much less deviation from aesthetic ideals for women than it does for men" (Fikkan and Rothblum 2012:575). Obesity-related stigma is especially pronounced among white women, as black and Hispanic norms concerning body mass are more permissive towards overweight and obesity than corresponding white norms (Fitzgibbon et al. 2000). In a culture where femininity is predicated on ‘‘appearing small, petite, frail, submissive or otherwise non-threatening’’ (Whitehead and Kurz 2008:345), an obese white woman is sanctioned accordingly, rendered unattractive and desexualized (Bordo and Heywood 2004; Millman 1980).

In addition to shaping perceptions about beauty and femininity, white cultural norms about body mass position thinness as a marker of social status, with the ultrathin female ideal viewed as a sign of success and prestige (Crosnoe 2007; Hesse-Biber 2007; McLaren and Kuh 2004). Some scholars suggest that this pattern of lower BMI among the most well-off serves as a source of social differentiation (Bourdieu 1984; Cockerham 2005)—employed by high-SES women to set themselves apart from lower SES groups (Hesse-Biber 2007; McLaren 2007; McLaren and Kuh 2004). Socioeconomically advantaged white women, therefore, are especially concerned with their weight and invest considerable effort in maintaining a lean appearance (McLaren 2007; Ross 1994), whereas socially disadvantaged white women are less likely to aspire to the ultrathin ideal espoused by their wealthier counterparts (Sobal and Stunkard 1989).

Black and Hispanic cultural norms about body mass, in contrast, have less within-group variability. In particular, racial/ethnic minorities do not place as much value on physical appearance as a means for success, attractiveness, and life satisfaction—regardless of gender or social strata (Kronenfeld et al 2010; Stice year). In sum, the fact that women in upper middle classes tend to be thinner is not a consequence of genetics or better access to treatment; their physical appearance is a consequence of their "social station" in society, which dictates the rewards and punishments used to enforce standards of appropriate body size McLaren and Kuh 2004; Ross 1994). In stark contrast, higher body mass is evaluated as a relatively neutral condition among white men and racial/ethnic minorities of both genders (Fitzgibbon et al. 2000; Hebl and Turchin 2005; Wang and Zhang 2006).

Previous research suggests that women typically assume primary responsibility for the care, feeding, and education of children—including the transmission of shared cultural understandings (Neumark-Sztainer et al. 2010). Consequently, the beliefs that women possess with respect to their own body image have implications for their perception of, and response to, the body image of their children. This is an important consideration given that adolescents' self-assessment, including what is considered "good" or "bad" weight, is influenced by their perceptions of their parents' attitudes toward body mass (Helfert 2011). It is not surprising, then, that in describing beauty and attractiveness black female teens place less stress on physical characteristics and more emphasis on psychological traits, whereas their white counterparts are more likely to associate good looks with being thin (Desmond et al. 1989). Moreover, black and

Hispanic adolescents report substantially higher levels of body satisfaction compared to their high-SES white peers, for whom the desire to be thin increases with social class (Gordon-Larsen et al. 2003; Sobal and Stunkard 1989; Wang and Zhang 2006).

Peers also act as a prominent source of weight- and appearance-based norms, especially during adolescence (Ali et al. 2011; Giordano 2003; Mueller et al. 2010; Paxton et al. 1999). Indeed, "the influence of friends surpasses that of parents" by mid-adolescence (Crosnoe 2000:378). In an important paper, Frank et al. (2008) demonstrated that one can classify individual students' peers in terms of the network of students with whom they take the classes, arguing that peer norms and cultures at this structural level are likely to yield the strongest peer influences on adolescents. However, given the role of race/ethnicity and parental SES in shaping the composition of secondary schools and curricula (Conger, Long, & Iatarola, 2009; Long, Conger, & Iatarola, 2012), adolescents tend to be surrounded by peers who share similar cultural norms and ideals with respect to body mass (Crosnoe, Frank, and Mueller 2008). Taken together, this evidence suggests that more privileged adolescents'—especially girls—have networks of social influence, both at home and at school, that disproportionately promote low BMI and sanction overweight and obesity (Crosnoe 2001; Crosnoe 2007; Ross 1994).

Still, the link between individual and peer attributes during the high school years is not absolute, and some racial/ethnic minorities and low-SES students will have more privileged peers as a function of their course-taking trajectories (Ferrare 2012; Crosnoe and Schneider 2010). When surrounded by socioeconomically advantaged peers, and the accompanying body mass-related sanctions and stigma, high-SES students may serve as "vessels" of influence from their own parents to their less-advantaged classmates (Crosnoe, Frank, and Mueller 2008; Fletcher et al. 1995). In such circumstances, the resources that lower-SES and minority students get from peers with respect to body mass may substitute for the influence of parents. In this way, elite academic contexts have the potential to both exacerbate and ameliorate socially constructed educational gradients in obesity.

Apart from the formal institutional structure that delivers college preparatory credentials to some students and not others, therefore, the schooling process in the U.S. is also characterized by an informal organizational structure made up of social hierarchies that shape students' the weight-related behaviors and norms adolescents carry with them into adulthood (Coleman 1961; Crosnoe 2011; Sawyer et al 2012). If social stratification in adolescents' high school experiences and subsequent attainment outcomes shape body mass differentials at midlife, then previous research may systematically misstate or greatly deemphasize if, how, and for whom, "education" matters for body mass differentials in midlife. To date, however, the extent to which educational stratification in high school and college contribute to long-term body mass differentials has not been explored.

Research Aims

To address this gap in the literature, this dissertation is organized around three separate, but related, analytic chapters that are organized around three overarching research aims:

1. Does stratification with respect to academic course-taking in high school predict body mass during midlife?
2. Does stratification in educational attainment level and selectivity predict body mass during midlife?
3. Do racial/ethnic minorities and first generation college students who occupy a position at the top of the academic status hierarchy in high school or college have lower body mass during midlife than their counterparts who are not given these opportunities?

In addressing each research aim, I consider the extent to which the relationships I seek to observe are modified by sex because body mass—as well as aesthetic standards of ideal body size, and the severity of social punishments for being overweight or obese—differ for women and men depending on their position in the status hierarchy (Arroyo-Johnson and Mincey 2016b; Heymsfield et al. 2016). Indeed, the findings suggest that focusing solely on the product of schooling—rather than the process—limits our understanding of how (and for whom) education impacts obesity.

In addressing each of the three research aims outlined above, a primary goal of this dissertation is to elucidate the ways in which the cumulative and highly-stratified structure of schooling shapes body mass differentials during midlife, bringing us closer to conceptualizing the processes through which education matters for obesity. In accomplishing this goal, this dissertation also shines light on whether policy interventions should be aimed at improving students' attainment outcomes, or whether it is more important to otherwise improve the process of schooling for maximum returns to long-term body mass.

Conceptual Model

As underscored in Figure 1, estimating the link between educational stratification and body mass during midlife is complicated by the fact that, (1) learning and performance at one point differentially prepares students for the next step (and is also highly stratified by SES); and (2) the relationship between adolescent body mass and educational stratification at the secondary and postsecondary levels is, at least in part, endogenous to body mass in midlife (Haas and Fosse 2008; Zheng 2017; Long, Conger, and Iatarola 2012; Zajacova and Lawrence 2018).

For instance, students begin schooling with substantial racial/ethnic and SES–related gaps in vocabulary, numeracy, reading readiness, and general knowledge (Duncan and Murnane 2011), and these initial skill disparities that tend to widen as youth progress through formal schooling (DiPrete and Eirich 2006). By the time they reach high school, lower income and minority students are disproportionately tracked into college preparatory classes, further intensifying the role of social origins for academic inequalities (Needham, Crosnoe, and Muller 2004).

Additionally, racial/ethnic minorities and students whose parents have fewer economic resources are more prone to be obese during adolescence (Martin et al. 2012). Obese adolescents, in turn, tend to have lower test scores and grades throughout secondary schooling, and are less likely to complete college preparatory coursework by the end of high school (Crosnoe and Muller 2014; Sabia 2007). This pattern of cumulative disadvantage extends into higher education, especially among adolescent girls, for whom body mass is both directly and indirectly (through high school course-taking) associated with whether students continue on to higher education, the kind of institution they attend, and the likelihood they graduate with a bachelor's degree (Crosnoe 2007; Pattison et al. 2014). Figure 1 also illustrates that adolescents with parents with low levels of educational attainment are more likely to face academic hurdles on the educational pathway leading to a bachelor's degree, independently of adolescent BMI. In particular, students with highly educated parents are more likely to enroll in higher education than their disadvantaged peers with similar BMI and academic aptitude, as reflected by test scores and grades (Breen and Goldthorpe 1997; Morgan, Spiller, and Todd 2013; Jackson 2013).

Given the socioeconomic differentiation associated with the process of schooling, for example, students with highly educated parents are more likely to have similarly advantaged peers (Crosnoe and Muller 2014). However, as suggested in Figure 1, the link between individual and parental education is not absolute; thus, it is possible that students with poorly educated parents will have peers with highly educated parents. When surrounded by socioeconomically advantaged peers, and the accompanying norms with respect to body mass, the influences of peers and their parents may substitute for the influence of parents that a student with highly educated parents may have and student with less educated parents may not. Thus, although social origins may tap into the heritability of academically and socially relevant traits and a range of structural and social advantages, with long term implications for both educational and body mass differentials (Bulik-Sullivan et al. 2015), occupying an elite academic space may disrupt this process by exposing students to different norms with respect to body mass. Each component of the conceptual model depicted in Figure 1 is discussed in more detail below.

Background

Observed Association between "Education" and Body Mass

Previous research investigating the relationship between "education" and body mass during midlife universally focuses on the highest level of schooling completed. Overall, this body of research documents an inverse relationship between increased schooling and adult risk factors for obesity (Bockerman et al. 2017; Cutler and Lleras-Muney 2010; Ljungvall and Zimmerman 2012). Evidence based on data from the Wisconsin Longitudinal Study, for example, suggests that the body mass returns to increased schooling are robust across various model specifications, including the use of sibling fixed effects to control for omitted variable bias. Moreover, both a continuous indicator measuring years of schooling completed and an ordinal indicator reflecting the highest credential earned predict reduced BMI and a lowered risk of overweight and obesity status during midlife (Kim 2016). In terms of the magnitude of educational disparities in body mass, evidence based on the NHANES data suggest that individuals who complete a bachelor's degree or higher are approximately fifteen percentage points less likely to be obese at midlife than their counterparts who only complete high school or less (Ogden et al 2017).

The inverse relationship between educational attainment and body mass during midlife is large, and well-documented across time, place, and population (see Kim, Roesler, and Knesebeck 2017 for a review). However, some research suggests that there are important demographic differences in the nature of this relationship. For example, a growing body of evidence illustrates that the link between education and obesity is particularly pronounced among women (Arroyo-Johnson and Mincey 2016; Cohen et al. 2013; Ogden et al. 2014 McLaren and Kuh 2004; Yu 2012; 2016), for whom norms about weight—in particular what is considered "good" or "bad" weight—are stricter and more publicly enforced (Martin 1996; Wardle, Waller, and Jarvis 2002).

Additionally, a small body of evidence suggests that earning a bachelor's degree from a selective college or university (relative to a non-selective one) is associated with an additional reduction in the probability of being obese at midlife (Fletcher and Frisvold 2014). In particular, Fletcher and Frisvold (2014) use the Wisconsin Longitudinal Study (WLS), which consists of a random sample of the graduating high school class of 1957 in Wisconsin, to illustrate that, among non-Hispanic white four-year college graduates, earning a degree from a selective college is associated with a reduction of approximately 4–6 percent in BMI and 15–18 percent in overweight.

Regardless of how—and for whom—it is defined, the inverse association between educational attainment and obesity at midlife is well-established and enduring. Nevertheless, as underscored by the brief review below, what about "education" matters for modern-day body mass differentials remains poorly understood.

Traditional Pathways Linking "Education" to Body Mass

The link between educational attainment and body mass has been explained in different ways by different research traditions. Scholars within the social sciences acknowledge that educational disparities in body mass involve more than freely chosen lifestyles (see Pampel, Krueger, and Denney 2010 for a discussion). Instead, research within this tradition suggests that educational disparities in body mass result from the multifarious ways in which attainment structures inequality throughout adulthood (Blagg and Blom 2018). In particular, research on the social determinants of body mass points towards the vast differences in the social circumstances of bachelor's degree completers compared to their counterparts who fail to reach this educational milestone, often underscoring disparities with respect to material well-being, human capital accumulation, and social status (Cutler and Lleras-Muney 2010; Ross and Wu 1995).

With respect to material well-being, scholars argue that feelings of economic hardship and financial problems are more likely among persons with less schooling, and that these difficulties lead to increased chronic stress, health damaging behavior, and subsequent obesity (Marmot 2005). Additionally, research within this tradition suggests that less educated persons are more frequently exposed to work stress and job strain—conditions that are strongly associated with increased body mass (Brunner, Chandola, Marmot 2007; Burdette and Hill 2008; Inoue, Tsurugano, Niskikitani, and Yano 2010). Although these pathways make sense theoretically, existing empirical evidence suggests that the link between educational attainment and body mass during midlife operates independently of disparities in material well-being—e.g. income, wealth, occupation, and numerous other economic indicators (Cohen et al. 2013; Cutler and Lleras-Muney 2010).

In terms of the human capital explanation, researchers argue that cognitive and non-cognitive factors, which are fostered—or at least rewarded—through increased schooling, improve health outcomes via everything from health behaviors and health management to higher occupational prestige and income (Cutler and Lleras-Muney 2008; Farkas 2003; Mirowsky and Ross 2003). Proponents of this framework also contend that higher levels of schooling increase the efficacy, problem-solving skills, ability to process information, and locus of control needed to overcome obstacles to maintaining a healthy body mass—e.g. the inertia of inactivity, the discomfort of exercise, and the desire for unhealthy foods and excess calories (Darmon and Drewnowski; Nayga 2000; Ross and Wu 1995). Despite the popularity of this framework in the extant literature, a closer look at the empirical evidence suggests that the relationship between increased schooling and body mass operates independently of IQ, test scores, future orientation, locus of control, and numerous other indicators of human capital observed during both adolescence and adulthood (Cohen et al. 2013; Cutler and Lleras-Muney 2010).

Although the relationship between educational attainment and body mass during midlife endures independently of disparities in both material well-being and human capital, evidence based on a white subsample of the NLSY79 data suggests that, in conjunction with key early-life and demographic controls, these explanations account for approximately 35 and 40 percent of the association between educational attainment and BMI and obesity, respectively (Cutler and Lleras-Muney 2010). Thus, the economic and human capital pathways account for a non-trivial amount of the association between educational attainment and body mass during midlife. That said, some scholars suggest that these explanations do little to attenuate variation in the relationship between educational attainment and body mass when a more refined measure of postsecondary completion is considered.

Recently, a handful of scholars have begun to consider the extent to which other dimensions of educational attainment, such as institutional selectivity, present an important source of variation in body mass differentials (Fletcher and Frisvold 204; Pattison et al. 2016). Evidence based on data from the Wisconsin Longitudinal Study, for example, suggests that earning a bachelor's degree from a selective college or university (relative to a non-selective university) is associated with an additional 10 percentage point reduction in the probability of being obese at midlife (Fletcher and Frisvold 2014). Thus, health scholars have concluded that both the quantity *and* the quality of educational attainment matter for obesity.

Much less is known about why graduating from a selective college or university affects body mass, or the role of gender in this process. Indeed, the relationship between graduating from an elite college and body mass during midlife endures net of occupational characteristics (access to care, insurance coverage, prestige), income/wealth measures, marriage market outcomes, graduate school attendance, as well as numerous indicators reflecting cognitive and non-cognitive skill acquisition throughout the life course (Fletcher and Frisvold 2012). Furthermore, there is no evidence that these commonly hypothesized explanations attenuate the observed effect of college selectivity on body mass during midlife (Fletcher and Frisvold 2012). Thus, although disparities with respect to material well-being and human capital may attenuate educational variation in body mass among individuals with lower and less prestigious educational outcomes, these traditional pathways offer little insight into body mass differentials when higher and more select educational outcomes are considered.

In the sections that follow I argue that *academically selective* educational contexts likely influence body mass through non-material resources. In particular, I argue that these contexts—and the characteristics of the individuals who populate them—have distinct social capital

(Boudon 1974; Coleman 1988) related to body mass ideals and norms (Kawachi et al. 2008; Kawachi et al. 1999). In crafting this argument, I use the long history of research rooted in the sociology of education and two classic sociological perspectives to argue that academically selective schooling contexts affect body mass through pathways of social influence—including class-based norms of thinness and the power of peers in groups (Bordieu 1984; Bourdieu 1987; Bourdieu and Wacquant 1992;). Before considering these social processes, however, it is helpful to understand the role of educational stratification in shaping not only students' attainment level and selectivity, but the entire schooling and social trajectories that drive and result in these disparate outcomes.

Educational Stratification and the Process of Schooling in the U.S.

For over 50 years, research within the sociology of education has shown that differences in family background—especially race/ethnicity and parental SES—are strongly associated with students' academic success and eventual attainment outcomes (Adelman 1994; Coleman 1966). Indeed, this body of evidence underscores that students begin kindergarten with substantial disparities in vocabulary, numeracy, reading, and general knowledge (Duncan and Magnuson 2011), and that these initial skill disparities tend to widen as youth progress through formal schooling (DiPrete and Eirich 2006). By the time they reach high school, students with less-educated parents are overwhelmingly tracked into courses necessary to earn their diploma and little more, while children from more-educated families pursue a series of advanced coursework in preparation for college, career, and beyond (Bastedo and Jaquette 2011; Harwell et al. 2009). As a result, the relationship between family background and academic success extends well beyond the walls of high school.

Indeed, race/ethnicity and parental education are associated with whether similar-ability students continue on to college, the kind of institution they attend, the major they pursue, and the likelihood they graduate with a bachelor's degree (Crosnoe and Muller 2014; Grodsky and Riegle-Crumb 2010; McDonough 1977; Sutton et al. 2013). Consequently, postsecondary institutions, and the distribution of their graduates are largely segmented along lines of social class (and race/ethnicity to a lesser extent): community colleges enroll a socially distinct student body compared to four-year colleges; academically selective colleges have very different undergraduate demographics than less selective colleges; etc. (Bailey and Dynarski 2011; Weis, Cipollone, and Stitch 2015). Taken together, this evidence underscores the relationship between students' social origins and their chances of obtaining educational status markers, such as a bachelor's degree—but also advanced course-taking in high school and college selectivity (Granovetter, 1973; Kanter, 1977; Seymour & Lunde, 1991).

In theorizing about the academic advantages enjoyed by more privileged youth, scholars within the sociology of education argue that more educated parents use their social capital to promote their children's academic success by teaching the specific behaviors, patterns of speech, and cultural references that are valued by the educational and professional elite (Bourdieu 1987; Coleman 1966; Coleman 1988). Parents on the high end of the socioeconomic continuum know the written and unwritten rules and can therefore teach their children to work the system more effectively (Lareau 2004). Moreover, parents with increased schooling are better able to link their children to a cohesive social network of well-educated individuals who can fill in gaps in this knowledge, as needed (Plank and Jordan 2001). These competitive advantages are especially important amidst the shuffling of students and increased differentiation that occurs at the transitions to high school—a period of disrupted relationships, new norms and rules, and long-term consequences for students' attainment outcomes (Benner 2011; Crosnoe 2003; Crosnoe and Huston 2007; Morgan 2005).

In sum, race/ethnicity and socioeconomic status are particularly important components of educational stratification, tapping into the heritability of academically relevant traits, norms, and a range of structural and social advantages (Grodsky and Riegle-Crumb 2010; Lee, Smith, and Croninger1997; Schiller et al. 2010). In addition to instrumental academic resources, the social capital more advantaged parents share with their offspring also has implications for their exposure to body mass norms and ideals.

Educational Stratification, Social Norms, and Body Mass Differentials

Indeed, some evidence suggests that more privileged parents use the adoption of healthy behaviors and lifestyles to set themselves (and their children) apart from their less advantaged counterparts (Cockerham 2005). For example, individuals who complete a bachelor's degree or higher are more likely to teach their children to exercise moderately or vigorously (Stempel 2005), to diet (Sobal and Stunkard 1989), and to eat frequent servings of fruits and vegetables (Cutler and Lleras-Muney 2008). As a result, it is unsurprising that the children of college completers have, on average, a lower body mass during youth and adolescence than children whose parents who fail to reach this educational milestone (Giskes et al. 2008; Langenberg et al. 2003). Importantly, existing empirical evidence suggests that different norms with respect to health behaviors do little to attenuate educational disparities in body mass during childhood, adolescence, and adulthood—especially among the highly educated and their offspring (Cutler and Lleras-Muney 2008;).

Instead, research within this tradition emphasizes that those with higher and more select educational outcomes have different body mass preferences and weight-related norms than their less-educated peers—which subsequently results in discrepancies in body mass across the life course (Bourdieu and Wacquant 1992; McLaren 2007). In particular, health scholars suggest that highly-educated individuals prioritize the recognition and pursuit of attributes that are valued and rewarded in society, such as a thin body (Hesse-Biber 2007; Pudrovska and Anishkin 2012). As a result, being overweight or obese has a greater impact on psychological distress among the well-educated, a population in which high-BMI is uncommon and viewed as personal failure (Ross 1994). Given that youth initially learn health values and behavioral norms from their family, obesity is stigmatized more among children of highly-educated parents—especially during adolescence (Sobal and Stunkard 1989), a key period of biological and social change, with attitudes and behaviors acquired during this stage tracking into adulthood (Sawyer et al. 2012).

Another key feature of adolescence is that the influence of peers surpasses that of family (Crosnoe 2000). However, given the role of race/ethnicity and parental SES in shaping the composition of secondary schools and curricula (Conger, Long, & Iatarola, 2009; Long, Conger, & Iatarola, 2012), adolescents tend to be surrounded by peers who share similar cultural norms and ideals with respect to body mass (Crosnoe, Frank, and Mueller 2008). More advantaged adolescents, therefore, tend to have networks of social influence—both at home and at school—that disproportionately promote thin ideals and sanction overweight and obesity (Crosnoe 2001; Crosnoe 2007).

Still, the link between individual and parental education is not absolute; thus, it is possible that students with poorly educated parents will have peers with highly educated parents. When surrounded by socioeconomically advantaged peers, and their accompanying norms with respect to body mass, the influences of peers and their parents may substitute for the influence of parents that a student with highly educated parents may have and student with less educated parents may not. Thus, although parental education may tap into the heritability of a range of structural and social advantages, occupying an elite academic space may disrupt the intergenerational transmission of disadvantage by exposing students to different norms with respect to body mass.

The Role of Selection

One of the main challenges in studying the link between educational stratification and body mass is accounting for selection. Within a selection framework, education's seemingly beneficial effects simply reflect unmeasured factors that are related to both educational stratification and body mass at midlife. It is important, therefore, to account for family background when estimating these relationships because skills, access to higher education, postsecondary attainment, and body mass at midlife are all highly skewed by race/ethnicity and parental socioeconomic status.

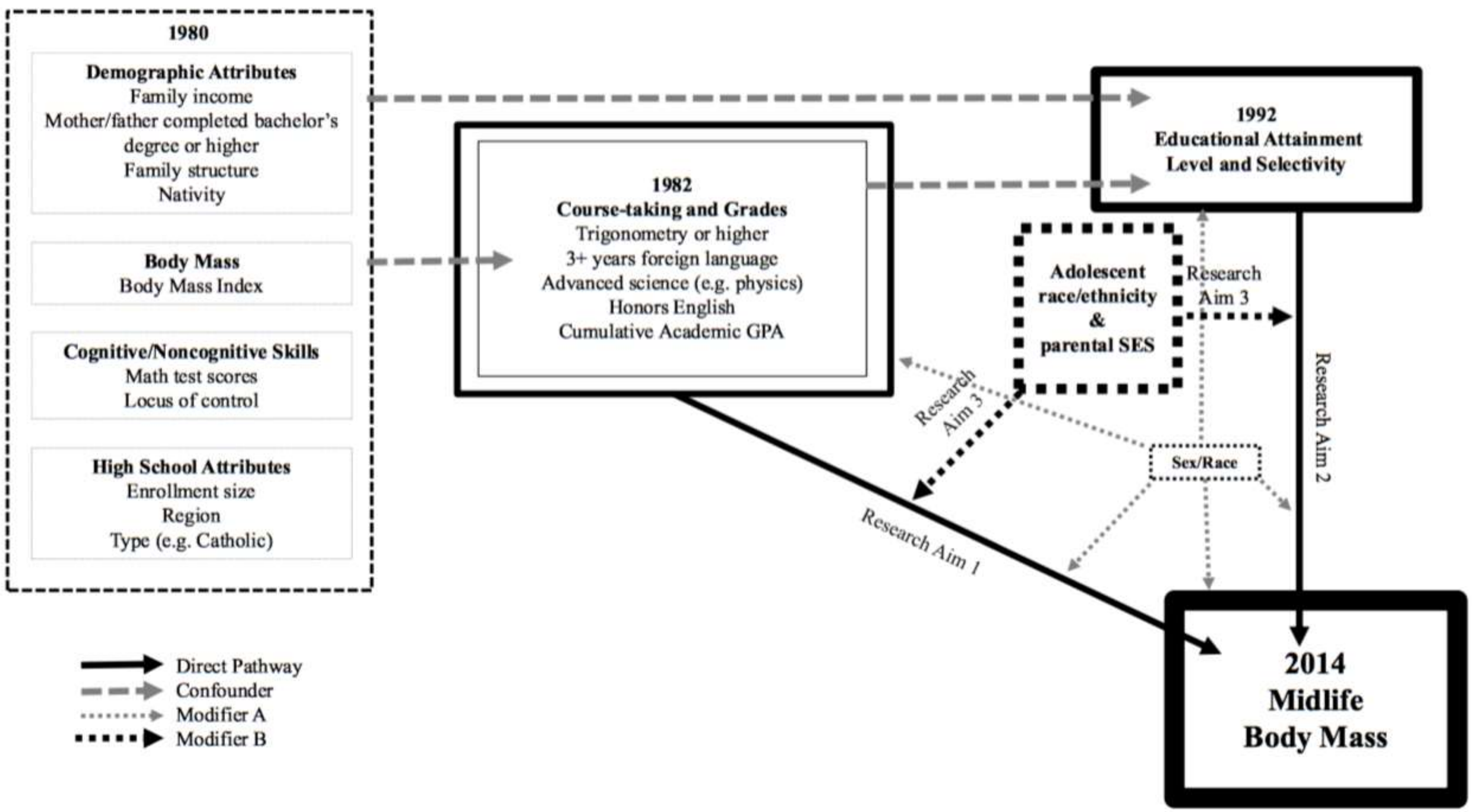
Parental education, in particular, is the single best predictor cognitive and non-cognitive skills from elementary school onward (Duncan and Brooks-Gunn 1997). Specifically, more privileged students not only have higher skills when they enter kindergarten, but they also make larger skill gains throughout formal schooling, resulting in large gaps by the end of high school (Burkam and Lee 2002). With respect to postsecondary outcomes, existing literature suggests that students with more highly educated parents, in higher status occupations, with above average income are both overrepresented at selective colleges and universities, and are more likely to complete a bachelor's degree (Carnevale and Rose 2003; Coleman 1988; Duncan and Brooks-Gunn 1997; Lin 2001; Schnabel et al. 2002).

Parental socioeconomic status is similarly correlated with body early in the life course, which may have direct and indirect implications for the relationships I seek to observe. Students raised by parents with lower levels of educational attainment, for example, are more prone to high body mass during adolescence (Martin et al. 2012). Obese adolescents, in turn, tend to have lower test scores and grades throughout secondary schooling, and are less likely to complete college preparatory coursework by the end of high school (Crosnoe and Muller 2014; Sabia 2007). This pattern of cumulative disadvantage extends into higher education, especially among adolescent girls, for whom body mass is both directly and indirectly (through academic antecedents) associated with whether students continue on to college, the kind of institution they attend (community college versus four-year, selective versus unselective college, etc.), and the likelihood they complete a bachelor's degree (Crosnoe 2007).

As a result, some scholars contend that "obesity and socioeconomic status are simultaneously antecedents and consequences of each other over the life course via mutually-reinforcing patterns of effects" (Pudrovska et al. 2014 pp.13). With this consideration in mind, in order to estimate the relationship between educational stratification and body mass differentials during midlife, it is important to account for the role of social background and body mass during adolescence in allocating students to different positions in the academic hierarchy throughout the schooling process. In addition to accounting for pre-existing individual differences, previous research also suggests that numerous school attributes independently shape students' educational and health trajectories (Long et al. 2012; Frisvold and Golberstein, 2011, 2013).

In sum, students who complete higher and more select educational outcomes systematically differ from those who do not—both with respect to their individual attributes and their position in the academic status hierarchy throughout formal schooling. Despite these methodological challenges, research that wrestles with the question of how to capture education as a long-term process is important because it has the potential to inform sociological understanding of the connection between education and obesity by illuminating how formal schooling experiences filter into the educational attainment process in ways that have the potential to exacerbate or ameliorate the intergenerational transmission of obesity vis-à-vis disparate secondary and postsecondary schooling experiences and outcomes. In the section that follows, I describe the data and methods I use to execute my overarching research aims.

Figure 1. Conceptual model for investigating the effect(s) of educational stratification in secondary and postsecondary schooling on obesity at midlife



Chapter 2: Data and Methods

Data and Sample

Data

To address the research aims that structure this dissertation, I rely on data from the High School and Beyond (HS&B) sophomore cohort. The HS&B data were initially collected in 1980, from 30,030 sophomores in over 1,000 public and private secondary schools. A subsample of this cohort, consisting of approximately 14,830 individuals, was followed up with surveys in 1982, 1984, 1986, and 1992, as students progressed from high school into the early stages of their adult life. High school and postsecondary transcript data were also collected in 1987 and 1993. Sample members were surveyed most recently in 2014, when most individuals were between 48 and 50 years old.

The primary topics addressed by the early surveys include persistence in attaining educational goals; progress through the curriculum; rates of degree attainment (and other assessments of educational outcomes); barriers to persistence and attainment; and the relationship between course-taking patterns, academic achievement, and subsequent access to, and choice of, undergraduate and graduate educational institutions (Zahs et al. 2005). In addition to providing reliable and cumulative information about quantitative distinctions in students' secondary and postsecondary (if applicable) achievement trajectories, the transcript data also provide information about the hierarchies within which these trajectories take shape. The most recent follow-up survey collected information on midlife outcomes, including body mass. In addition to the 2014 follow-up, this analysis is based primarily on the transcript data and the 1980, 1982, and 1992 follow-ups. Below I provide more details about these components of the

HS&B data, followed by a brief discussion about why these data are particularly well-suited to address my research aims.

The base-year survey was conducted in the spring of 1980, during the latter part of students' sophomore year of high school. Respondents were selected using a two-stage, stratified probability sample with schools as the first-stage and students within schools as the second-stage. More than 30,000 sophomores enrolled in roughly 1,000 public and private high schools across the country participated in the base-year survey. The first follow-up sample included all 1980 sophomores (including base-year non- respondents) who were still enrolled in their original base-year schools. Certain categories of 1980 sophomores (early graduates, dropouts and transfers) no longer enrolled in their original schools were subsampled.[1]

The data collected in 1980 and 1982 from the sophomore cohort included information on school, family, work experiences, educational and occupational aspirations, personal values, and cognitive skills via administered tests.[2] The cognitive tests measured achievement in reading comprehension and vocabulary, mathematics, science, writing, and civics during students' sophomore and senior year of high school. School questionnaires, which were filled out by an official in each participating high school, were also collected over this period, providing information about enrollment, educational programs, facilities and services, dropout rates, and course offerings. Subsequent to the 1982 follow-up, high school transcripts were also collected. High school transcripts were successfully obtained and coded for nearly 90 percent of the sophomore cohort (Jones et al. 1983).

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[1] More detailed information about the base year and first follow up samples can be found in Frankel et al. 1981and Tourangeau et al. 1983.

[2] Of the sample members eligible for the first follow-up, 95 percent completed the questionnaire and 88 percent completed the tests.

A few years later, in 1987, the postsecondary transcript study began for respondents who reported attending a postsecondary institution during the 1984 or 1986 waves. Building on this initiative, another round of postsecondary transcript data gathering was conducted in Februarys of 1993 to collect information on students' academic histories since leaving high school. By this time, most students had been out of high school for 11 years, allowing many of the sophomore cohort members to persist in obtaining their baccalaureate degrees and others to pursue graduate, doctoral, and professional degrees. I rely on the 1993 transcript data because if students' complete transcripts were obtained during the 1987 transcript study, no request for transcripts was made in 1993; however, their transcript data were abstracted from the 1987 transcript files, recoded, and integrated with data from transcripts collected in 1993 (Zahs et al. 1995).[3] Data were also collected on postsecondary institutional characteristics—such as type of institution, highest degree offered, enrollment, admissions requirements, and tuition (Burns 2011).

Turning back to the sophomore cohort survey data, the 1992 follow-up was compromised of the same sample members as the first follow-up, provided they were not deceased.[4] The1992 survey sought to obtain information on issues of access to and choice of postsecondary educational institutions, persistence in obtaining educational goals, progress through the curriculum, degree attainment and other educational outcomes. Taken together, the overarching objectives of the data collected between 1980 and 1992 allows analysts to describe relationships between sophomore cohort sample members' social backgrounds, high school experiences and outcomes, and postsecondary educational experiences and outcomes.

[3] Including the 1987 transcript data, about 14,000 transcripts were processed from 15,000 institutions for approximately 13,030 sophomore panel sample members.

[4] Approximately 160 individuals from the first-follow were deceased by the fourth follow-up. Among non-deceased sample members, the response rate for the fourth follow-up was approximately 85 percent.

The fifth follow-up survey of the sophomore cohort sample, conducted in 2014, builds on this information by surveying sample members when most were between 48 and 50 years old. Consistent with the 1992 follow-up, the 2014 follow-up consists of eligible sample members from the 1982 follow-up. Notably, the 2014 follow-up survey was designed to collect new information from all eligible members of the sophomore panel, regardless of their response status in earlier waves of data collection. Of particular interest in the 2014 follow-up were connections between secondary and postsecondary educational experiences and later life outcomes, including respondents' overall health, their height and weight, and any long-term physical or mental conditions. Sample members were also asked about any academic or vocational courses they completed or credentials they earned (including degrees, certificates and diplomas) since they were last surveyed. Approximately 65 percent of eligible sample members responded to the 2014 follow-up surveys used in the current analysis.[5]

The HS&B data are well-suited for this analysis because I am able to control on key factors known to predict disparities in both schooling and body mass outcomes *and* I have the advantage of utilizing high school fixed-effects (Attewell and Domina 2008; Haas and Fosse 2008; Hummer and Perry 2013). As a result, I am able to isolate the extent to which the link between educational stratification and obesity operates through observed differences with respect to the structure of schooling—rather than unobserved and/or institutional ones (Long et al. 2012).

Sample

Of the 14,830 sample members who participated in the panel study, I restrict my analysis to 2014 survey respondents who reported information on their height and weight (used to

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[5]See Muller et al. 2019 for more detailed information about the 2014 follow-up structure and sample.

construct body mass).[6] This specification results in an analytic sample consisting of approximately 4,490 women and 4,040 men. I retain missing data on independent variables using multiple imputation procedures, with the number of imputations commensurate with the percentage of cases missing data on independent variables (Dong, Ying, and Peng 2013). I obtain substantively similar results when I use listwise deletion for missing cases or when I retain missing cases using constant substitution or single imputation procedures.

Measurement of Variables

Obesity at Midlife

I construct the dependent variable, obesity at midlife, as a binary indicator reflecting if the respondent's body mass index (BMI) at approximately age 50 is greater than or equal to 30. To derive this measure, I first calculated a BMI for each respondent based on their self-reported height (in inches) and weight (in pounds) in 2014. Specifically, I followed the guidelines established by the Center for Disease Control and Prevention (CDC) and calculated BMI by dividing weight in pounds by height in inches squared and multiplying by a conversion factor of 703. Once each respondent had a value for BMI, I constructed two weight status categories consisting of "non-obese" (BMI less than or equal to 29.9) [omitted reference] and "obese" (BMI greater than or equal to 30.0). Results are substantively consistent if I define the dependent variable using a categorical, continuous, or dichotomous indicator of body; however, I rely on the dichotomous measure, reflecting obesity, for substantive, theoretical, and practical purposes.

Educational Attainment Level and Selectivity

I construct educational attainment as a transcript-based indicator reflecting the level and selectivity (if applicable) of the highest degree attained by the respondent through the 1993

[6]All unweighted numbers are rounded to the nearest 10 per IES restricted use guidelines.

postsecondary transcript data collection. Response categories include: “less than high school graduate,” “high school graduate” [omitted reference], “completed a certificate from a less than two-year college,” “completed an associate’s degree at a two-year college,” “completed a bachelor’s degree at a non-selective four-year college,” “completed a bachelor’s degree at a moderately selective four-year college,” and “completed a bachelor’s degree at a very selective four-year college.” I define institutional selectivity using the HS&B HEGIS File, which contains data on the institutional characteristics for each college or university attended through 1993 by sophomore cohort respondents (Burns 2011).

Academic Course-taking and Performance in High School

I measure the academic antecedents to educational attainment level and selectivity using information about students’ core academic course-taking in high school as well as information about their academic grades. Each course that appeared on a student’s transcript was coded with Classification of Secondary School Courses (CSSC) codes, which have been used in all major transcript studies, including High School and Beyond (HSB), the National Education Longitudinal Study (NELS), and the National Assessment of Educational Progress.

I use the CSSC codes to construct four separate dichotomous indicators reflecting if students completed at least one advanced course in math, science, foreign language, and English by the end of high school. This conceptualization emphasizes *which* courses students take rather than how many years of courses they take which is more consistent with the literature on what matters for shaping adolescents’ peer group during high school, college, and beyond.

I also include a measure of students’ cumulative high school grade point average (GPA) because substantial research indicates that the grades students receive are not simply representations of their academic ability (DiPrete and Buchmann 2013), but are also impacted by a number of non-cognitive factors including cooperativeness (Rosenbaum 2001), disciplinary problems (Farkas et al. 1990), motivation and effort (Stiggins and Conklin 1992), attendance and class participation (Kelly 2008), work habits and preparedness (Rosenbaum 2001; Farkas et al. 1990), self-control and interpersonal skills (Duckworth et al. 2015) and teacher–student relationships (Brookhart 1993). Accounting for these attributes will, in theory, help isolate the role of the structural position of the course. I construct *cumulative GPA* by weighting high school transcript-based core academic course grades (reading, math, science, and social studies) by the number of credits respondents earned in each course throughout high school.

Observed Confounding

One of the challenges in studying the link between education and obesity is that both schooling and health disparities may stem from pre-existing differences between students (Benson, von Hippel, and Lynch 2018; von Hippel and Lynch 2014). Left unmeasured, these factors can produce selection effects that make it difficult to identify the relationships I seek to observe. I attempt to minimize the role of selection when estimating the relationship between secondary and postsecondary schooling and obesity by accounting for key individual and institutional factors known to predict disparities in both education and body mass. These indicators are measured during the base year survey (when most respondents were 16 years old).

I construct adolescent BMI as a continuous indicator based on the respondent's self-reported height and weight. Results are substantively similar when I use an age-and sex-specific categorical indicator of BMI percentile.

The demographic indicators I account for include parental education and income, and race/ethnicity. I construct *parental education* as a five-category indicator reflecting the highest degree the respondent's mother or father earned. Response categories include: "less than a high school diploma," "high school diploma" [omitted reference], "vocational training," "some college," and "bachelor's degree or higher." I construct parents' *income* to reflect the combined annual income of each of the respondent's parents. I construct race/ethnicity as a four-scheme variable consisting of "white" [omitted reference], "black," "Hispanic," and "other."

I measure differences in adolescents' cognitive and non-cognitive skills using indicators of their locus of control and their math and verbal test scores in 10th grade. I construct *locus of control* as a standardized scale (alpha=0.77) consisting of sample member's responses to four questions: "How do you feel about each of the following statements? a) Good luck is more important than hard work for success; b) Every time I try to get ahead, something or somebody stops me; c) Planning only makes a person unhappy, since plans hardly ever work out anyway; d) People who accept their condition in life are happier than those who try to change things." Response categories include: "Agree strongly," "Agree," "No opinion," "Disagree," and "Disagree strongly." I construct separate indicators for students' math and verbal skills using their achievement scores, which are based on multiple choice tests administered to HS&B sample members.

In an attempt to isolate the extent to which individual educational differences predict obesity at midlife, as a first step, I will include indicators for several school-level factors known to confound the relationships I seek to observe, including high school enrollment size, region, urbanicity, and type (eg. public versus private).

Analytic Strategy

Bi-variate and Multivariate Analyses

Below I present descriptive statistics for the full analytic sample by obesity status and gender (Table 1). Then, within each analytic chapter, I begin with multivariate linear probability models. I provide more detail about how I build the models to address the overarching research aim within each chapter. I present the results from these estimates as average marginal effects (AME) or average partial effects (APE), which are interpreted as the average percentage increase (or decrease) in the probability of being obese experienced by persons with a particular educational outcome (Mood 2010). I present all results separately by gender and use the "suest" command in Stata to test if group differences are statistically significant ($p<0.05$). All analyses are weighted to account for differences in the probability of selection into the sample and I rely on clustered standard errors to account for the nested structure of the data. As outlined below, I go beyond using descriptive and multiple regression techniques to test the robustness of the findings associated with each research aim.

High School Fixed Effects

The clustered nature of the HS&B data is a powerful methodological and theoretical tool to further my claims about the relationship between secondary and postsecondary schooling and obesity at midlife. By utilizing high school fixed effects I am able to extend the multivariate modeling strategy described above and soak up the combined effects of all time-invariant predictors that differ across high schools and absorb any spill-over effects resulting from these differences. A strength of estimating high school FE (versus individual FE with repeated measures or sibling fixed effects) is that I am able to estimate the effects of individual attributes that are fixed, while controlling for all time-invariant differences in observed and unobserved attributes across schools. Thus, fixed effects models greatly reduce the threat of omitted variable bias (Allison 2009). To be clear, my research aims are not concerned with examining how high school attributes influence the relationship between education and body mass, but instead I seek to remove the role of differences between high schools to better isolate the extent to which the relationship between educational stratification and body mass operates through individual differences rather than institutional processes (Long et al. 2012).

Because fixed effects models look at the influence of each adolescents' deviation from his or her school-mean on measured attributes, I can isolate these effects within schools and more precisely isolate individual-level effects of secondary education on obesity at midlife. Thus, the key to my identification strategy in the multivariate analysis is the assumption that obesity is exogenous and is not correlated with unobserved factors that affect students' schooling outcomes. When using the fixed effects, however, my identifying assumption is that the unobservable factors that might simultaneously affect education and obesity are time-invariant.

Although this strategy is a powerful tool for removing bias, I can never be sure that my assumptions are fully satisfied given the nature of observational data. Nevertheless, I argue that the combination of methodological techniques I employ allows me to estimate the parameters of the relationship between educational stratification to obesity at midlife among women and men with a fair degree of confidence.

Identifying a Switch Point to Invalidate Inferences

Critics may challenge my claims by arguing that (1) the omitted variables pertinent to my research aims vary over time within each high school, and therefore are not absorbed by the fixed effects (bias resulting from violation of conditional independence assumption); or (2) the observed confounders included in the regression models are inadequate to fully compensate for differences between those who do and do not complete higher and more select levels of schooling (bias resulting from endogeneity). At the same time, other skeptics may argue that including too many controls overcorrects for unobserved heterogeneity and produces results biased in the opposite direction. Thus, as a final step, I quantify the robustness of my inferences by identifying a "switch point" where bias is large enough to undo my claims about the effects of secondary and postsecondary education on obesity at midlife (Frank et al. 2013).

In particular, I use the "konfound" command in Stata, which calculates (1) how much bias there must be in an estimate to invalidate/sustain an inference and interpret it in terms of sample replacement; and (2) the impact of an omitted variable necessary to invalidate/sustain my inferences with respect to the role of education on obesity among women and men.

While I acknowledge that I can never be sure that my assumptions are fully satisfied given the limitations of observational data and sociological theory, serious attempts to understand, quantify, and bound which aspects of the process of schooling in the U.S. affects body mass during midlife are critical because the information gained has the potential inform policy about the causes and consequences of educational stratification. In this spirt, I revisit and execute my first research aim in the section that follows.

Descriptive Statistics

Table 1 provides descriptive statistics for the analytic sample by gender and weight status at midlife. Looking first at the left panel of Table 1, which displays the descriptive statistics for women, there appears to be differences in obesity prevalence across the educational attainment categories. In particular, women who earn a bachelor's degree or higher, regardless of selectivity, are significantly more likely to have a BMI less than 30 than they are to be obese, whereas women who only complete a high school diploma are more likely to be obese than they are to have a BMI less than 30 ($p<0.05$). With respect to academic course-taking and performance in high school, it appears that women who complete advanced courses are less likely to be obese at midlife ($p<0.05$), although this difference is not statistically significant among women who complete AP English by the end of high school. Differences in obesity seem to be especially steep depending on students' mathematics and foreign language course-taking in high school ($p<0.05$). Moreover, it appears that women who are obese during midlife receive lower grades and have lower mathematics test scores in high school than their peers with a midlife BMI less than 30. Looking down the rows of the left panel of Table 1 other notable differences between women by midlife obesity status emerge. In particular, women who have a BMI less than 30 in midlife (relative to women who are obese) appear to be more likely to be white, come from families with parents who are more highly educated and have higher average incomes ($p<0.05$).

Turning now to the right panel of Table 1, there appears to be a similar educational gradient in weight status for men; however, the gradient appears to be slightly less steep for men than women when considering the role of institutional selectivity ($p<0.05$). Thus, the magnitude of the gradient between individuals who have a BMI less than 30 and those who are obese appears to be smaller for men than women. Moreover, there do not appear to be stark educational differences in midlife body mass with respect to academic course-taking and performance in high school among men. Likewise, the demographic indicators I consider do not sharply differ by weight status among men. Taken together, this evidence suggests that the variables I consider may explain less variation in midlife body mass among men than among women. I now turn to the multivariate results to develop a more complete understanding of the extent to which educational attainment and early life factors combine to shape body mass differentials in midlife.

Table 1. Descriptive statistics for full analytic sample by sex (SD presented in parentheses)

	Female		Male	
	BMI<30	BMI>30	BMI<30	BMI>30
Dependent Variable				
Body Mass Index	24.27	35.98	26.25	34.50
	(3.10)	(5.83)	(2.42)	(5.45)
Educational Attainment Level and Selectivity				
Highest Degree or Credential Earned				
Less than High School	0.07	0.10	0.08	0.07
High School [omitted reference]	0.50	0.65	0.53	0.64
Certificate	0.05	0.05	0.04	0.05
Associate's Degree	0.07	0.06	0.05	0.05
Non-selective Bachelor's Degree	0.23	0.13	0.23	0.16
Moderately Selective Bachelor's Degree	0.06	0.02	0.05	0.03
Very Selective Bachelor's Degree	0.02	0.00	0.02	0.01
Academic Performance in High School				
Courses Completed by 12th Grade				
Advanced Mathematics	0.16	0.07	0.18	0.15
AP English	0.07	0.05	0.06	0.05
Three or more years Foreign Language	0.18	0.10	0.12	0.08
Advanced Science	0.12	0.08	0.13	0.10
Cumulative GPA	2.52	2.37	2.31	2.18
	(0.76)	(0.77)	(0.76)	(0.73)
Observed Confounders				
Demographic Characteristics				
Race/Ethnicity				
White [omitted reference]	0.77	0.63	0.74	0.70
Black	0.09	0.21	0.09	0.13
Hispanic	0.10	0.13	0.13	0.13
Other	0.04	0.02	0.04	0.04
Parental Education				
Bachelor's Degree or Higher	0.16	0.08	0.16	0.14
Respondent Born in US	0.96	0.97	0.96	0.97
Respondent Lives with both Biological Parents	0.69	0.63	0.73	0.71
Family Income	4.56	3.79	4.70	4.29
	(2.11)	(2.02)	(2.12)	(2.04)
Skills in 10th Grade				
Locus of Control	0.11	-0.05	-0.07	-0.11
	(0.96)	(0.93)	(1.02)	(1.01)

Table 1 [cont].

	Female		Male	
	BMI<30	BMI>30	BMI<30	BMI>30
Mathematics Test Score	13.12	10.15	13.75	12.36
	(9.48)	(8.99)	(10.20)	(9.82)
High School Attributes				
Total Membership	1350.84	1288.54	1364.39	1328.28
	(791.55)	(813.33)	(807.36)	(777.71)
Type				
Public [omitted reference]	0.88	0.93	0.89	0.94
Catholic	0.07	0.05	0.06	0.05
Private	0.05	0.03	0.04	0.02
Region				
North east [omitted reference]	0.23	0.19	0.25	0.22
North central	0.28	0.28	0.26	0.29
South	0.30	0.39	0.30	0.31
West	0.19	0.15	0.19	0.18
Body Mass during Adolescence				
BMI in 10th Grade	19.62	22.47	20.61	23.05
	(2.39)	(3.74)	(2.67)	(3.38)
Observations	3170	1310	2630	1410

Source: High School and Beyond Sophomore Cohort

Chapter 3: Secondary Schooling and Obesity at Midlife

Introduction

Recall, by defining “education” as the outcome of a cumulative and highly-differentiated process, the strategy of existing research does not consider the some of the more sociological aspects of the *process* of schooling in the United States. The lack of empirical work tracing the link between education and obesity back to the *process* of schooling is surprising given the long history of research rooted in the sociology of education, which emphasizes that students’ pathways into and through postsecondary schooling are the result of their movement through a highly stratified sequence of educational transitions (Hauser 1970; Mare 1981; Coleman 1968). As discussed previously, stratification in opportunities to learn are especially pervasive and consequential during the high school years—when choice and options in coursework increases dramatically, and when the sequential curricular pathways leading to a bachelor’s degree become increasingly hard to alter (Crosnoe and Huston 2007; Gamoran and Hannigan 2000).

Disparities in high school course-taking is a key mechanism of stratification because students who complete advanced coursework have, on average, higher grades, achievement test scores, and high school completion rates than their peers in less rigorous courses (Attewell and Domina 2008; Gamoran and Hannigan 2000; Grodsky and Reigle-Crumb 2010). Completing advanced courses in high school also increases the probability that students will attend college, and in particular that they will attend a selective college or university (Byun, Irvin, and Bell 2015; Rose and Betts 2004; Schneider, Swanson, and Riegle-Crumb 1997). Among students who attend a four-year college, completing advanced coursework in high school is a strong determinant of bachelor’s degree completion (Adelman 2006).

The preceding discussion also underscored that, apart from the formal institutional structure that systematically delivers crucial academic credentials to some students and not others, high schools are also characterized by an informal organizational structure made up of social hierarchies (Coleman 1961). This social side of schooling may be particularly relevant for developing a more complete understanding of the pathways linking education to obesity given that these intermediate peer contexts can reinforce or counter negative social messages about some trait that is stigmatized in the general context of American society (Coleman, Johnstone, and Jonassohn 1981; Goffman 1963), such as obesity (see Puhl and Heuer 2009 for a review). To the extent that students' educational experiences and outcomes reflect their standing in the broader stratification system, norms with respect to what constitutes a healthy and appropriate body mass may vary across these contexts (Crosnoe 2007; Ross 1994).

In sum, it is well-documented that students' academic experiences in high school have important consequences for their pathways into and through higher education (Adelman 1999; Adelman 2003; Schneider 2003), as well as the body mass norms and ideals that adolescents take with them into adulthood (Crosnoe 2011; Mueller et al. 2010), yet there is a lack of empirical work tracing the roots of previously observed educational gradients in obesity back to this "critical period" (Schafer et al. 2013). If social stratification in students' high school experiences and subsequent educational outcomes help shape body mass differentials at midlife, then previous research may systematically miss or greatly deemphasize if, how, and for whom, "education" matters for body mass. To date, however, the extent to which the high school years either contribute to or culminate in (through disparate postsecondary outcomes) educational disparities in obesity has not been explored.

Research Questions

To address this gap in the literature, I answer the following research questions:

1. Does stratification with respect to academic course-taking in high school predict body mass during midlife? If so,
   a. Do these relationships endure independently of demographic and structural factors known to influence long-term outcomes with respect to schooling and body mass?
2. Do academic factors observed at the end of high school predict body mass during midlife net of high school completion and overall educational attainment?
3. Is the relationship between academic stratification in high school and body mass during midlife robust to causal claims?

Methods

To address my first research question, I use a linear probability models to establish the magnitude of differences in the relationship between academic course-taking and performance by the end of high school and body mass during midlife separately among women (Table 2) and men (Table 3). In Model 1, I include each academic indicator to examine the independent contribution of academic indicator and body mass in midlife. Subsequently, in Model 2, I add indicators for students' cognitive and non-cognitive skills in 10th grade to examine the extent to which any observed differences operate through positional advantages experienced by students who begin high school with higher skills, as reflected by these measures. Next, I add controls for key demographic (Model 3) and school (Model 4) attributes known to influence students' outcomes with respect to both schooling and body mass. Finally, in Model 5, I add an indicator for respondents' BMI during adolescence to test the extent to which the relationships I seek to observe operate through potential teacher bias with respect to grading and the selection of high-BMI adolescents out of more rigorous courses in high school.

To address my second research question, in Model 2 of Table 4 (women) and Table 5 (men), I test the extent to which any observed relationships between academic course-taking and performance by the end of high school and body mass during midlife operate through disparities in students' educational attainment outcomes by 1993. To address my third research question, I use high school fixed effects and identify a switch point to invalidate my inferences (as described in Chapter 2).

Results

Does Stratification with respect to academic course-taking in high school predict body mass during midlife?

The first model of Table 2 examines the baseline association between each advanced course I consider and obesity at midlife, net of the others and overall cumulative GPA. Among women, individuals who complete advanced mathematics in high school are nearly 12 percentage points less likely to be obese at midlife, net of cumulative GPA and the other advanced courses we consider. Likewise, women who complete three or more years of a foreign language in high school are approximately six percentage points less likely to be obese at midlife than their counterparts who complete less than three years. However, it is not just the courses women complete in high school that seem to impact their BMI at midlife, the grades they earn in these courses also shape body mass differentials. Specifically, a one-point increase in cumulative GPA is associated with a 3.5 percentage point decrease in the probability of being obese at midlife.

Looking down the rows of Table 2, it appears that much of the relationship between the academic antecedents to bachelor's degree completion and body mass during midlife is explained by pre-existing differences in these attributes. However, there is one notable exception to this phenomenon. In particular, women who complete advanced mathematics in high school remain approximately eight percentage points less likely to be obese at midlife, even once we account for disparities in skills, BMI, and other demographic and institutional attributes observed during adolescence. Thus, the relationship between advanced math course-taking and obesity during midlife among women likely operates independently of these potential confounders among women. The results presented in Table 22 (see appendix) suggest that these results are substantively consistent when logistic models are used to predict midlife obesity. Likewise, these results are consistent when midlife BMI, rather than obesity, is considered (see Table 24).

Turning to Table 3, it appears that academic course-taking and performance by the end of high school also predicts body mass during midlife among men. In particular, men who complete three or more years of a foreign language, or advanced science, are approximately eight and six percentage points less likely, respectively, to be obese at midlife. Moreover, a one-point increase in cumulative GPA is associated with a three percentage point decrease in the probability of being obese at midlife. The relationship between high school course-taking and obesity during midlife appears to operate independently of pre-existing differences and socioeconomic status and academic skills. Instead, these educational disparities in midlife body mass appear to operate through differences in institutional context and adolescent BMI. Once these factors are accounted for, the relationship between the academic antecedents to bachelor's degree completion and body mass during midlife is largely attenuated to zero. That said, it appears that men who complete advanced science in high school remain approximately five percentage points less likely to be obese at midlife, net of these factors, although this relationship is now only marginally significant ($p<0.10$). These results are substantively consistent regardless of the statistical model used or measure of midlife body mass considered (see Table 23 and Table 25 in the appendix).

In sum, the evidence presented in Table 2 and Table 3 suggests that the academic antecedents to bachelor's degree completion we consider predict body mass differentials during midlife among both women and men, even once we account for pre-existing differences in key demographic, academic, and structural factors. However, the extent to which any observed relationships endure independently of the increased schooling outcomes they predict remains unclear. To shed more light on this issue, I now turn to my second research question.

Do academic factors observed at the end of high school predict body mass during midlife net of overall educational attainment?

To better understand the answer to this research question, we now turn to Table 4 and Table 5, which examine if academic factors observed at the end of high school predict body mass during midlife net of educational attainment among women and men, respectively. The first model in Table 4 is simply the final model from Table 2 for ease of interpretation. In Model 2, I add an indicator reflecting the highest level of schooling each female respondent completed by 1993. The results from Model 2 suggest that accounting for the highest level of schooling completed does little to attenuate the relationship between advanced course-taking and obesity during midlife among women.

Indeed, women who complete advanced mathematics in high school remain approximately seven percentage points less likely to be obese at midlife than their counterparts who do not complete advanced mathematics by 12th grade, net of observed confounders and disparities in overall educational attainment. To put the magnitude of this finding into perspective, women who complete a bachelor's degree or higher are approximately nine percentage points less likely to be obese at midlife than their peers who terminate their schooling after graduating high school. Notably, the magnitude of these findings are not statistically distinguishable ($p<0.05$). *Thus, the size of the "effect" of completing advanced mathematics by* *the end of high school on midlife obesity is comparable to that of graduating from a four-year college or university*. Once again, these results are substantively consistent when logistic models are used to predict midlife obesity (see Table 26). Likewise, these results are consistent when midlife BMI, rather than obesity, is considered; however, the results become marginally significant ($p<0.10$) once educational attainment is accounted for (see Table 28).

Turning to Table 5, it appears that, among men, accounting for overall educational attainment does little to attenuate the coefficient reflecting the relationship between advanced science course-taking in high school and obesity at midlife; however, this coefficient is no longer statistically distinguishable from 0. These results are substantively consistent regardless of the method used or outcome considered (see Table 27 and Table 29 in the appendix).

Taken together, the evidence from Table 4 and Table 5 suggest academic factors observed during high school—in particular advanced mathematics course-taking—are an important predictor of midlife body mass differentials among women, even once we account for high school completion, overall educational attainment, and pre-existing differences in key demographic, academic, and structural factors. However, it is less clear if academic antecedents observed during high school predict body mass during midlife independently of pre-existing disparities and eventual educational attainment among men.

Although the results presented in Table 4 provide compelling evidence that educational disparities in body mass likely emerge well before students' attainment trajectories are realized among women, it is possible that this simply reflects unmeasured factors related to both advanced mathematics course-taking and obesity in midlife. With this consideration in mind, in the next phase of my analysis, I extend the modeling strategy executed in Table 4 by including high school fixed effects, which soak up the combined effects of all time-invariant predictors that differ across high schools. Correcting for unobserved institutional differences may be particularly important in the current analyses because previous research suggests that not all high schools present adequate opportunities to learn. With this consideration in mind, I argue that this modeling strategy greatly reduces the threat of omitted variable bias.

Is the relationship between academic course-taking and performance in high school and body mass during midlife robust to causal claims?

The first model in Table 6 shows the relationship between the academic antecedents to bachelor's degree completion and body mass during midlife net of overall educational attainment and pre-existing differences in key demographic, academic, and structural factors (as observed in the final models of Table 4). The second model in Table 6 also shows this relationship; however, instead of controlling for a handful of differences between high schools, I use high school fixed effects to control for average differences across high schools in both observable *and* unobservable predictors (Stock and Watson 2003). As a result, the effect of completing advanced mathematics is assumed to be identical across all high schools and the regression coefficient reflects the average within school effect of completing advanced mathematics on obesity.

As indicated in Table 6, the inclusion of high school fixed effects does not appear to attenuate the relationship between mathematics course-taking by 12th grade and obesity at midlife among women. Specifically, Model 2 illustrates that the average within school effect is approximately seven percentage points, and is not statistically distinguishable from the previous estimate ($p<0.05$).

The results for men, presented in Table 7, provide additional evidence that there is not an independent relationship between academic course-taking and performance in high school and obesity at midlife, as coefficient associated with science course-taking is attenuated to zero once

I account for time-invariant differences in observed and *unobserved* attributes across high schools.

Thus, although my findings for the female sample appear to be fairly robust, the same cannot be said for the male sample. Nevertheless, I remain cautious in my interpretation of the relationship between math course-taking and body mass during midlife because, although the strategies I employ in the first and second stage of my analysis are powerful tools for removing bias, I can never be sure that my assumptions are fully satisfied given the nature and limitations of observational data.

With the above-mentioned consideration in mind, as an additional step, I quantify the robustness of my claims about the relationship between mathematics course-taking in high school and obesity at midlife among women by identifying a "switch point" where bias is large enough to undo my inferences. In terms of sample replacement, in order to invalidate my inferences about the relationship between math course-taking in high school and body mass during midlife among women, 46 percent of cases would have to be replaced with cases for which there is an effect of zero of advanced math course-taking on obesity during midlife. Notably, this is 46 percent of cases, even net of high school fixed effects. With respect to the impact of an omitted variable necessary to invalidate our inferences, the omitted variable would have to be correlated at -.18 with math course-taking in high school and at .18 with obesity during midlife, conditional on high school fixed effects and the observed covariates, to invalidate the inferences about the relationship between math course-taking in high school and body mass during midlife among women.

Taken together, this evidence provides additional support for the link between mathematics course-taking in high school and obesity at midlife among women. Thus, it appears that the relationship between education and body mass emerges earlier in the life-course among women than among men. In the subsequent chapter, I consider if educational stratification in students' postsecondary outcomes also predict body mass differentials.

Table 2. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced Mathematics [No = OR]	-0.117***	-0.097***	-0.091***	-0.086***	-0.080***
	(0.022)	(0.023)	(0.023)	(0.023)	(0.022)
Respondent Completed AP English [No = OR]	0.006	0.015	0.014	0.011	0.005
	(0.032)	(0.032)	(0.032)	(0.031)	(0.030)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.058**	-0.036	-0.010	0.009	0.000
	(0.022)	(0.022)	(0.023)	(0.023)	(0.022)
Respondent Completed Advanced Science [No = OR]	-0.029	-0.018	-0.012	-0.009	0.003
	(0.028)	(0.028)	(0.028)	(0.028)	(0.026)
Cumulative Academic GPA	-0.035*	0.000	-0.002	-0.008	0.009
	(0.015)	(0.017)	(0.017)	(0.017)	(0.015)
Observed Confounders					
Locus of Control		-0.018	-0.013	-0.012	-0.012
		(0.012)	(0.011)	(0.012)	(0.011)
Mathematics Test Score		-0.005***	-0.002	-0.001	-0.001
		(0.001)	(0.001)	(0.001)	(0.001)
Race/ethnicity [White = OR]					
Hispanic			0.053~	0.062*	0.014
			(0.029)	(0.029)	(0.027)
Black			0.175***	0.179***	0.123***
			(0.033)	(0.034)	(0.032)
Other			-0.041	-0.031	-0.012
			(0.042)	(0.044)	(0.044)
Respondent Born in U.S. [No = OR]			0.085~	0.074~	0.076~
			(0.043)	(0.043)	(0.046)
Respondent Lives with both Biological Parents [No = OR]			0.013	0.011	0.013
			(0.024)	(0.024)	(0.023)
Respondent is First Generation College Student [No = OR]			-0.040	-0.038	-0.036
			(0.025)	(0.025)	(0.023)
Yearly Family Income			-0.025***	-0.023***	-0.016**
			(0.006)	(0.006)	(0.005)

Table 2 [cont].

High School Region [Northeast = OR]					
North Central				0.035	0.033
				(0.026)	(0.025)
South				0.046	0.064*
				(0.028)	(0.026)
West				0.007	0.015
				(0.028)	(0.027)
High School Type [Public = OR]					
Catholic				-0.047~	-0.033
				(0.024)	(0.023)
Private				-0.058	-0.041
				(0.050)	(0.046)
High School Enrollment Size				-0.000*	-0.000
				(0.000)	(0.000)
Respondent's BMI					0.057***
					(0.003)
Observations	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 3. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced Mathematics [No = OR]	0.006	0.006	0.008	0.012	0.008
	(0.026)	(0.027)	(0.027)	(0.027)	(0.025)
Respondent Completed AP English [No = OR]	0.029	0.029	0.031	0.038	0.007
	(0.045)	(0.045)	(0.045)	(0.044)	(0.038)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.078*	-0.079*	-0.065*	-0.038	-0.016
	(0.033)	(0.033)	(0.033)	(0.033)	(0.030)
Respondent Completed Advanced Science [No = OR]	-0.062*	-0.062*	-0.062*	-0.059~	-0.052~
	(0.031)	(0.031)	(0.031)	(0.031)	(0.030)
Cumulative Academic GPA	-0.031*	-0.032~	-0.035~	-0.040*	-0.028
	(0.016)	(0.018)	-0.018	(0.019)	(0.018)
Observed Confounders					
Locus of Control		0.002	0.005	0.006	-0.002
		(0.012)	(0.013)	(0.013)	(0.012)
Mathematics Test Score		0.000	0.001	0.001	0.001
		(0.001)	(0.001)	(0.001)	(0.001)
Race/ethnicity [White = OR]					
Hispanic			-0.018	-0.017	-0.029
			(0.030)	(0.030)	(0.030)
Black			0.107**	0.113**	0.091*
			(0.038)	(0.038)	(0.036)
Other			-0.015	-0.011	-0.006
			(0.062)	(0.063)	(0.057)
Respondent Born in U.S. [No = OR]			0.034	0.027	0.004
			(0.063)	(0.064)	(0.064)
Respondent Lives with both Biological Parents [No = OR]			0.034	0.029	0.040~
			(0.025)	(0.025)	(0.023)
Respondent is First Generation College Student [No = OR]			-0.012	-0.007	-0.007
			(0.029)	(0.029)	(0.027)
Yearly Family Income			-0.017**	-0.015**	-0.010~
			(0.006)	(0.006)	(0.005)

Table 3 [cont].					
High School Region [Northeast = OR]					
North Central				0.062*	0.048~
				(0.027)	(0.026)
South				0.031	0.028
				(0.031)	(0.030)
West				0.022	0.018
				(0.032)	(0.032)
High School Type [Public = OR]					
Catholic				-0.022	-0.023
				(0.030)	(0.027)
Private				-0.167***	-0.149***
				(0.035)	(0.036)
High School Enrollment Size				-0.000	-0.000
				(0.000)	(0.000)
Respondent's BMI					0.057***
					(0.004)
Observations	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 4. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	-0.080***	-0.070**
	(0.022)	(0.022)
Respondent Completed AP English [No = OR]	0.005	0.010
	(0.030)	(0.030)
Respondent Completed 3+ Years Foreign Language [No = OR]	0.000	0.013
	(0.022)	(0.022)
Respondent Completed Advanced Science [No = OR]	0.003	0.005
	(0.026)	(0.026)
Cumulative Academic GPA	0.009	0.018
	(0.015)	(0.016)
Observed Confounders		
Locus of Control	-0.012	-0.010
	(0.011)	(0.010)
Mathematics Test Score	-0.001	-0.000
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	0.014	0.010
	(0.027)	(0.027)
Black	0.123***	0.125***
	(0.032)	(0.032)
Other	-0.012	-0.008
	(0.044)	(0.045)
Respondent Born in U.S. [No = OR]	0.076~	0.074
	(0.046)	(0.046)
Respondent Lives with both Biological Parents [No = OR]	0.013	0.018
	(0.023)	(0.023)
Respondent is First Generation College Student [No = OR]	-0.036	-0.024
	(0.023)	(0.023)
Yearly Family Income	-0.016**	-0.015**
	(0.005)	(0.005)

Table 4 [cont].		
High School Region [Northeast = OR]		
North Central	0.033	0.032
	(0.025)	(0.025)
South	0.064*	0.061*
	(0.026)	(0.026)
West	0.015	0.012
	(0.027)	(0.027)
High School Type [Public = OR]		
Catholic	-0.033	-0.027
	(0.023)	(0.023)
Private	-0.041	-0.028
	(0.046)	(0.045)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	0.057***	0.057***
	(0.003)	(0.003)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		-0.010
		(0.039)
Certificate		-0.085*
		(0.040)
Associate's Degree		-0.043
		(0.032)
Bachelor's Degree		-0.089***
		(0.024)
Observations	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 5. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	0.008	0.021
	(0.025)	(0.025)
Respondent Completed AP English [No = OR]	0.007	0.011
	(0.038)	(0.038)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.016	-0.003
	(0.030)	(0.031)
Respondent Completed Advanced Science [No = OR]	-0.052~	-0.046
	(0.030)	(0.030)
Cumulative Academic GPA	-0.028	-0.015
	(0.018)	(0.018)
Observed Confounders		
Locus of Control	-0.002	-0.002
	(0.012)	(0.012)
Mathematics Test Score	0.001	0.002
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	-0.029	-0.028
	(0.030)	(0.030)
Black	0.091*	0.093*
	(0.036)	(0.036)
Other	-0.006	-0.000
	(0.057)	(0.055)
Respondent Born in U.S. [No = OR]	0.004	0.005
	(0.064)	(0.063)
Respondent Lives with both Biological Parents [No = OR]	0.040~	0.039~
	(0.023)	(0.023)
Respondent is First Generation College Student [No = OR]	-0.007	0.004
	(0.027)	(0.027)
Yearly Family Income	-0.010~	-0.010~
	(0.005)	(0.005)

Table 5 [cont].		
High School Region [Northeast = OR]		
North Central	0.048~	0.049~
	(0.026)	(0.026)
South	0.028	0.028
	(0.030)	(0.030)
West	0.018	0.014
	(0.032)	(0.032)
High School Type [Public = OR]		
Catholic	-0.023	-0.016
	(0.027)	(0.027)
Private	-0.149***	-0.142***
	(0.036)	(0.037)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	0.057***	0.057***
	(0.004)	(0.004)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		-0.059
		(0.039)
Certificate		0.047
		(0.044)
Associate's Degree		-0.027
		(0.042)
Bachelor's Degree		-0.084**
		(0.026)
Observations	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 6. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of high school fixed effects, key demographic factors observed during adolescence, and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	-0.070**	-0.074***
	(0.022)	(0.022)
Respondent Completed AP English [No = OR]	0.010	0.013
	(0.030)	(0.030)
Respondent Completed 3+ Years Foreign Language [No = OR]	0.013	-0.004
	(0.022)	(0.021)
Respondent Completed Advanced Science [No = OR]	0.005	0.002
	(0.026)	(0.026)
Cumulative Academic GPA	0.018	0.024
	(0.016)	(0.015)
Observed Confounders		
Locus of Control	-0.010	-0.011
	(0.010)	(0.010)
Mathematics Test Score	-0.000	-0.001
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	0.010	0.006
	(0.027)	(0.027)
Black	0.125***	0.128***
	(0.032)	(0.031)
Other	-0.008	-0.015
	(0.045)	(0.043)
Respondent Born in U.S. [No = OR]	0.074	0.081~
	(0.046)	(0.045)
Respondent Lives with both Biological Parents [No = OR]	0.018	0.018
	(0.023)	(0.023)
Respondent is First Generation College Student [No = OR]	-0.024	-0.025
	(0.023)	(0.023)
Yearly Family Income	-0.015**	-0.016**
	(0.005)	(0.005)

Table 6 [cont].		
Respondent's BMI	0.057***	0.057***
	(0.003)	(0.003)
Educational Attainment Level		
[High School Diploma = OR]		
Less than High School Diploma	-0.010	-0.012
	(0.039)	(0.039)
Certificate	-0.085*	-0.085*
	(0.040)	(0.039)
Associate's Degree	-0.043	-0.048
	(0.032)	(0.032)
Bachelor's Degree	-0.089***	-0.091***
	(0.024)	(0.024)
Observations	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10; Model 2 contains HS fixed effects
Source: High School and Beyond Sophomore Cohort

Table 7. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of high school fixed effects, key demographic factors observed during adolescence, and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	0.021	0.044
	(0.025)	(0.029)
Respondent Completed AP English [No = OR]	0.011	0.006
	(0.038)	(0.051)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.003	-0.034
	(0.031)	(0.037)
Respondent Completed Advanced Science [No = OR]	-0.046	-0.001
	(0.030)	(0.034)
Cumulative Academic GPA	-0.015	-0.033
	(0.018)	(0.020)
Observed Confounders		
Locus of Control	-0.002	-0.013
	(0.012)	(0.012)
Mathematics Test Score	0.002	0.001
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	-0.028	-0.031
	(0.030)	(0.031)
Black	0.093*	0.114*
	(0.036)	(0.045)
Other	-0.000	0.012
	(0.055)	(0.060)
Respondent Born in U.S. [No = OR]	0.005	0.034
	(0.063)	(0.060)
Respondent Lives with both Biological Parents [No = OR]	0.039~	0.028
	(0.023)	(0.027)
Respondent is First Generation College Student [No = OR]	0.004	-0.001
	(0.027)	(0.029)
Yearly Family Income	-0.010~	-0.005
	(0.005)	(0.006)

Table 7 [cont].		
Respondent's BMI	0.057***	0.057***
	(0.004)	(0.004)
Educational Attainment Level		
[High School Diploma = OR]		
Less than High School Diploma	-0.059	-0.032
	(0.039)	(0.043)
Certificate	0.047	0.023
	(0.044)	(0.051)
Associate's Degree	-0.027	-0.025
	(0.042)	(0.045)
Bachelor's Degree	-0.084**	-0.079**
	(0.026)	(0.028)
Observations	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10; Model 2 contains HS fixed effects

Source: High School and Beyond Sophomore Cohort

Chapter 4: Educational Attainment Level and Selectivity and Obesity in Midlife

Introduction

In the preceding analytic chapter, I examined if key academic antecedents to higher and more select attainment outcomes predict body mass during midlife among women and men. After observing the independent association between each antecedent and body mass separately by gender, I examined if these factors—observed at the end of high school—predicted obesity during midlife net of educational attainment level and key academic and social factors known to influence students' outcomes with respect to schooling and body mass.

Overall, the findings from the previous chapter revealed that the relationship between education and body mass during midlife likely emerges earlier in the life-course among women than men. Specifically, these results suggested that both academic preparation for college *and* educational attainment level predict body mass among women, whereas only educational attainment seems to matter for men.

As underscored in the preceding literature review, a long tradition of research rooted in the sociology of education suggests that economically and academically advantaged adolescents are not only overrepresented at selective colleges and universities, they are more likely to persist in these contexts towards a bachelor's degree (Carnevale and Rose 2003; Coleman 1988; Duncan and Brooks-Gunn 1997; Lin 2001; Schnabel et al. 2002). Parental socioeconomic status is similarly correlated with body mass early in the life course, which may have direct and indirect implications students' postsecondary prospects (or lack thereof). Students raised by parents with lower levels of educational attainment, for example, are more prone to high body mass during adolescence (Martin et al. 2012). Obese adolescents, in turn, tend to have lower test scores and grades throughout secondary schooling, and are less likely to complete college preparatory coursework by the end of high school (Crosnoe and Muller 2014; Sabia 2007).

This pattern of cumulative disadvantage extends into higher education, especially among adolescent girls, for whom body mass is both directly and indirectly (through academic antecedents) associated with whether students continue on to college, the kind of institution they attend (community college versus four-year, selective versus unselective college, etc.), and the likelihood they complete a bachelor's degree (Crosnoe 2007). Thus, the results presented in the previous analytic chapter raise as many questions as they answer.

Research Questions

In an attempt to develop a more complete understanding of the role of educational attainment level and selectivity in shaping body mass differentials during midlife, this part of the investigation is guided by the following research questions:

1. Does stratification in educational attainment level and selectivity predict body mass during midlife?
2. Does the relationship between educational attainment level/selectivity endure independently of demographic and structural factors known to influence long-term outcomes with respect to schooling and body mass?
3. Is the relationship between stratification in educational attainment level/selectivity and body mass during midlife robust to causal claims?

Methods

To address my first and second research questions, I use a linear probability models to establish the magnitude of differences in the relationship between educational attainment level and selectivity by 1993 and body mass differentials during midlife separately among women (Table 8) and men (Table 9). In Model 1, I estimate the baseline relationship between educational attainment level and selectivity and midlife body mass. Subsequently, in Model 2, I add controls for key demographic attributes known to influence students' outcomes with respect to both educational attainment and body mass.

To further isolate the relationship between educational attainment level and selectivity and obesity during midlife, I then add indicators for students' cognitive and non-cognitive skills in 10th grade (Model 3), their academic achievement and performance by 12th grade (Model 4), and key high school attributes (Model 5), all of which are known to influence students' outcomes with respect to both schooling and body mass. Finally, in Model 6, I add an indicator for respondents' BMI during adolescence to test the extent to which the relationships I seek to observe operate the selection of high-BMI adolescents out of higher and more select educational outcomes.

To address my third research question, in Model 2 of Table 10 (women) and Table 11 (men), I test the extent to which any observed relationships between educational attainment level and selectivity and body mass during midlife operate independently of high school fixed effects (as described in Chapter 2). As a final step, I once again quantify the robustness of my inferences by identifying a "switch point" where bias is large enough to undo my claims about the effects of educational attainment level and selectivity on obesity at midlife (Frank et al. 2013).

Results

Does stratification in educational attainment level and selectivity predict body mass during midlife?

The baseline differences presented in Model 1 of Table 8 suggest that as the educational attainment level gets higher and more select, the probability of being obese at midlife declines—with the largest body mass returns to schooling among women who earn their bachelor's degree from a very selective college or university (compared to women who terminate their schooling after high school graduation). For example, whereas women who complete their bachelor's degree at a non-selective college or university are approximately 17 percentage points less likely to be obese at midlife than their counterparts who only have a high school diploma, women who earn their bachelor's degree from a very selective four-year college are nearly 30 percentage points less likely to be obese.

By subtracting the AME associated with graduating from a non-selective four-year college from the AME pertaining to graduating from a very selective four-year college, we see that the baseline returns to body mass of attending the most prestigious colleges and universities is over 11 percentage points, on average ($p<0.05$). To put this finding into perspective, the body mass returns to earning a bachelor's degree from a very selective college relative to a non-selective or moderately selective one are larger than the value added of earning an associate's degree (compared to terminating schooling after high school).

Turning to Model 1 in Table 9, a similar pattern emerges, in general; however, there are key exceptions to this rule. At first glance, it appears that the magnitude of the relationship between educational attainment level and selectivity and body mass during midlife is smaller for men than women ($p<0.05$). In particular, men do not appear to benefit as much as women from attending a non-selective or moderately selective college (when contrasted with terminating their schooling after high school), whereas the relationship between graduating from a very selective four-year college and body mass during midlife is not statistically distinguishable between women and men ($p<0.05$).

Taken together, the results for women and men from Model 1 of Table 8 and Table 9 provide additional support for the potential role of educational stratification in shaping body mass differentials in midlife. However, the extent to which the relationships I observe are driven by demographic and structural factors known to influence long-term outcomes with respect to schooling and body mass remains unclear at this time. Thus, in subsequent models I explore this possibility.

Does the relationship between educational attainment level and selectivity endure independently of demographic, academic, and structural factors known to influence long-term outcomes with respect to schooling and body mass?

Consistent with the descriptive statistics observed in Model 1 of Table 8 and Table 9, the multivariate results suggest a steep educational gradient in obesity during midlife among women and men; however, comparing the results across these tables suggests that the nature of this relationship differs between women and men ($p<0.05$). In the second model of each table, I account for pre-existing differences with respect to race/ethnicity and parental socioeconomic status. Accounting for these factors explains considerably more variation in the relationship between educational attainment level and selectivity among women (Table 8) than among men (Table 9).

Returning first to Table 8, it appears that women who complete an associate's degree are no longer statistically distinguishable from high school graduates once the above-mentioned factors are accounted for. Accounting for these pre-existing differences also attenuates the relationship between bachelor's degree completion and obesity during midlife, regardless of how selective the degree is ($p<0.05$). For example, among women who graduate from a non-selective or very selective college or university (relative to only completing high school), accounting for these factors explains approximately 30 percent of the relationship between educational attainment and obesity. Among women who graduate from a moderately selective four-year college, differences with respect to race/ethnicity and socioeconomic status accounts for approximately 50 percent of educational variation in body mass ($p<0.05$).

In subsequent models, I add indicators for pre-existing differences with respect to respondents' skills (Model 3), high school course-taking patterns (Model 4), and secondary school attributes (Model 5), and adolescent BMI (Model 6). Among women, accounting for these factors does comparatively little—above and beyond race/ethnicity and SES—to attenuate educational disparities in body mass, as the coefficients across the models are not statistically distinguishable from zero ($p<0.05$).

Thus, even after I account for observed differences in demographic and structural factors known to influence long-term outcomes with respect to schooling and body mass, women who graduate from a selective college or university remain approximately 16 percentage points, on average, less likely to be obese at midlife compared to their counterparts who terminate their schooling after graduating from high school. Moreover, the results from Model 4 provide addition evidence that completing advanced math in high school predicts body mass in midlife independently of the disparities in educational attainment level and selectivity it predicts. *Indeed, the magnitude of the relationship between completing advanced math in high school and body mass during midlife among women is comparable to that of completing a bachelor's degree from a non-selective college or university ($p<0.05$).* The key findings with respect to educational attainment level and selectivity *and* advanced math course-taking in high school are substantively consistent regardless of the statistical model used or measure of body mass considered (as evidenced by Tables A9 and A11 in the appendix).

With respect to Table 9, it appears that accounting for these differences only explains between 12 and 22 percent of the observed educational variation in midlife body mass among men ($p<0.05$). Thus, it appears that observed differences with respect to race/ethnicity and parental socioeconomic status account for a larger share of the variation in the relationship between educational attainment level and selectivity among women than among men ($p<0.05$), which is consistent with previous research suggesting that these factors drive norms with respect to body mass ideals and sanctions among women, but not men. That said, the results from Table

9 suggest that accounting for observed differences in demographic and structural factors known to influence long-term outcomes with respect to schooling and body mass attenuate the relationship between graduating from a selective college or university and body mass during midlife by nearly 40 percentage points ($p<0.05$.). These results are substantively similar if I use logistic models instead of linear ones to predict midlife obesity (see Table 31), or if I predict BMI in midlife as opposed to obesity (as evidenced in Table 33).

Taken together, the results from Table 8 and Table 9 provide preliminary evidence that the pathways through which graduating from an elite college or university influence body mass during midlife are not consistent for women and men. In the next phase of my analysis, I extend the modeling strategy executed above by including high school fixed effects in an attempt to account for possible confounders that were not observed in the data. Then, I quantify the robustness of these inferences by identifying a "switch point" where bias is large enough to undo claims about the effects of educational attainment level and selectivity on obesity at midlife.

Is the relationship between stratification in educational attainment level/selectivity and body mass during midlife robust to causal claims?

The first model of Table 10 and Table 11 show the relationship between stratification in educational attainment level and selectivity and body mass during midlife among women and men, respectively—net of pre-existing differences in key demographic, academic, and structural factors (as observed in the final models of Table 8 and Table 9). The second model also shows this relationship; however, instead of controlling for a handful of high school differences, I use high school fixed effects to account for observed and unobserved differences between high schools and their inhabitants.

Table 10 shows that, among women, the inclusion of high school fixed effects absorbs a significant amount of variation in the relationship between students' educational attainment outcomes and body mass during midlife, such that all but one of the previously observed affects are no longer statistically significant ($p<0.05$). Indeed, after including high school fixed effects, it appears that educational attainment does not predict obesity during midlife; however, there is a notable exception to this rule. Compared to otherwise similar women who terminate their schooling after high school, women who graduate from the most selective postsecondary institutions remain approximately 11 percentage points less likely, on average, to be obese during midlife. Similarly, completing advanced math in high school also remains a significant predictor of body mass during midlife. Compared to women who do not complete advanced math in high school, women who do are nearly 10 percentage points less likely to be obese during midlife.

As an added robustness check, I quantify the robustness of my claims about the relationship between graduating from the most selective postsecondary institution and obesity at midlife. In terms of sample replacement, in order to invalidate this inference only 10 percent of cases would have to be replaced with cases for which there is an effect of zero of graduating from the most selective postsecondary institution on obesity during midlife. Although this seems like a low threshold, it is important to keep in mind how selective this outcome is. Given the small number of women who graduate from the most selective college or university, there is less statistical power behind these inferences, in general, thus, they must be interpreted with some caution.

With respect to the relationship between advanced math course-taking and obesity at midlife, even net of high school fixed effects *and* educational attainment level and selectivity, in order to invalidate my inferences, it would still require that 42 percent of cases be replaced with cases for which there is an effect of zero. Notably, this is 42 percent of cases, even net of high school fixed effects.

Turning to Table 11, it appears that, among men, including high school fixed effects attenuates the effect of graduating from a very selective college on body mass such that it is now indistinguishable from zero ($p<0.05$). However, graduating from a non-selective college or university remains a significant predictor of body mass during midlife, as these men are nearly 9 percentage points less likely, on average, to be obese at midlife compared to their peers who do not earn a postsecondary credential after high school. In terms of identifying a switch point, 35 percent of cases would need to be replaced with cases for which there is an effect of zero to invalidate this inference.

Taken together, the findings from Table 10 and Table 11 suggest that, once adjustments are made to account for both observed *and* unobserved confounding, "what about education matters for obesity" may look different for women and men. Among women, the results presented in Table 10 suggest that completing advanced mathematics in high school and earning a bachelor's degree from a *very selective* college or university are protective against obesity, whereas among men, it seems that earning good overall grades in high school ($p<0.10$) and graduating college, even if at the lowest tier university, are all that matter. In the chapter that follows, I consider the extent to which the relationships I observe in this chapter have the potential to interrupt the intergenerational transmission of obesity among racial/ethnic minorities and first generation college students, or if, instead, the relationships I observe simply serve as a vehicle for the social reproduction of the ultra-thin ideal among women who are predominately white and high-SES.

Table 8. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in HS)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.013	-0.002	-0.011	-0.007	-0.002	-0.006
	(0.046)	(0.044)	(0.045)	(0.045)	(0.045)	(0.040)
Certificate	-0.077~	-0.074~	-0.072~	-0.074~	-0.077~	-0.086*
	(0.041)	(0.041)	(0.041)	-0.041	(0.041)	(0.040)
Associate's Degree	-0.076*	-0.046	-0.042	-0.042	-0.039	-0.043
	(0.035)	(0.035)	(0.036)	(0.035)	(0.035)	(0.032)
Non-selective Bachelor's Degree	-0.171***	-0.119***	-0.108***	-0.103***	-0.102***	-0.090***
	(0.023)	(0.024)	(0.026)	(0.027)	(0.027)	(0.024)
Moderately Selective Bachelor's Degree	-0.202***	-0.115**	-0.100*	-0.088*	-0.079~	-0.070~
	(0.035)	(0.037)	(0.039)	(0.041)	(0.042)	(0.039)
Very Selective Bachelor's Degree	-0.285***	-0.198***	-0.178***	-0.167***	-0.155***	-0.159***
	(0.031)	(0.034)	(0.039)	(0.044)	(0.043)	(0.039)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.055~	0.048~	0.050~	0.059*	0.011
		(0.029)	(0.029)	(0.029)	(0.029)	(0.027)
Black		0.182***	0.176***	0.177***	0.182***	0.126***
		(0.032)	(0.033)	(0.033)	(0.033)	(0.032)
Other		-0.033	-0.035	-0.037	-0.026	-0.007
		(0.042)	(0.042)	(0.042)	(0.044)	(0.045)
Respondent Born in U.S. [No = OR]		0.081~	0.080~	0.081~	0.070	0.073
		(0.042)	(0.043)	(0.043)	(0.043)	(0.046)
Respondent Lives with both Biological Parents [No = OR]		0.019	0.018	0.018	0.016	0.018
		(0.024)	(0.024)	(0.024)	(0.024)	(0.023)
Respondent is First Generation College Student [No = OR]		-0.028	-0.026	-0.023	-0.023	-0.023
		(0.025)	(0.025)	(0.025)	(0.025)	(0.023)
Yearly Family Income		-0.025***	-0.024***	-0.023***	-0.021***	-0.015**
		(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Locus of Control			-0.010	-0.011	-0.010	-0.010
			(0.011)	(0.011)	(0.011)	(0.010)
Mathematics Test Score			-0.001	-0.001	-0.000	-0.000
			(0.001)	(0.001)	(0.001)	(0.001)

Table 8 [cont].

Respondent Completed Advanced Mathematics [No = OR]				-0.078***	-0.075***	-0.070**
				(0.022)	(0.022)	(0.022)
Respondent Completed AP English [No = OR]				0.021	0.018	0.010
				(0.032)	(0.031)	(0.030)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.008	0.024	0.014
				(0.023)	(0.023)	(0.022)
Respondent Completed Advanced Science [No = OR]				-0.008	-0.005	0.007
				(0.028)	(0.027)	(0.026)
Cumulative Academic GPA				0.009	0.004	0.018
				(0.017)	(0.017)	(0.016)
High School Region [NE = OR]						
North Central					0.033	0.031
					(0.026)	(0.025)
South					0.043	0.061*
					(0.028)	(0.026)
West					0.003	0.011
					(0.028)	(0.026)
High School Type [Public = OR]						
Catholic					-0.040~	-0.028
					(0.024)	(0.023)
Private					-0.041	-0.025
					(0.048)	(0.045)
High School Enrollment Size					-0.000*	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.057***
						(0.003)
Observations	4,490	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 9. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in HS)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.070~	-0.073~	-0.066	-0.073~	-0.074~	-0.047
	(0.038)	(0.039)	(0.040)	(0.041)	(0.040)	(0.041)
Certificate	0.032	0.042	0.042	0.043	0.044	0.047
	(0.054)	(0.053)	(0.053)	(0.054)	(0.052)	(0.044)
Associate's Degree	-0.059	-0.048	-0.052	-0.050	-0.054	-0.028
	(0.045)	(0.045)	(0.045)	(0.045)	(0.045)	(0.042)
Non-selective Bachelor's Degree	-0.117***	-0.103***	-0.115***	-0.102***	-0.103***	-0.087***
	(0.024)	(0.025)	(0.026)	(0.027)	(0.028)	(0.026)
Moderately Selective Bachelor's Degree	-0.112*	-0.087~	-0.104*	-0.075	-0.057	-0.056
	(0.045)	(0.045)	(0.047)	(0.051)	(0.050)	(0.048)
Very Selective Bachelor's Degree	-0.242***	-0.207***	-0.230***	-0.196**	-0.151*	-0.124*
	(0.056)	(0.058)	(0.060)	(0.065)	(0.063)	(0.057)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.025	-0.017	-0.018	-0.017	-0.028
		(0.029)	(0.030)	(0.030)	(0.030)	(0.030)
Black		0.101**	0.110**	0.111**	0.116**	0.094**
		(0.037)	(0.038)	(0.038)	(0.039)	(0.037)
Other		-0.014	-0.010	-0.008	-0.005	-0.002
		(0.060)	(0.061)	(0.060)	(0.061)	(0.055)
Respondent Born in U.S. [No = OR]		0.041	0.041	0.034	0.028	0.005
		(0.062)	(0.063)	(0.062)	(0.063)	(0.063)
Respondent Lives with both Biological Parents [No = OR]		0.031	0.031	0.032	0.028	0.040~
		(0.025)	(0.025)	(0.025)	(0.025)	(0.023)
Respondent is First Generation College Student [No = OR]		0.004	0.002	0.002	0.005	0.003
		(0.029)	(0.030)	(0.029)	(0.029)	(0.027)
Yearly Family Income		-0.015**	-0.016**	-0.016**	-0.014*	-0.010~
		(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Locus of Control			0.003	0.005	0.007	-0.002
			(0.012)	(0.013)	(0.012)	(0.012)
Mathematics Test Score			0.001	0.002	0.002	0.002
			(0.001)	(0.001)	(0.001)	(0.001)

Table 9 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				0.024	0.027	0.022
				(0.027)	(0.027)	(0.025)
Respondent Completed AP English [No = OR]				0.038	0.043	0.012
				(0.044)	(0.044)	(0.038)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.044	-0.024	-0.003
				(0.034)	(0.034)	(0.032)
Respondent Completed Advanced Science [No = OR]				-0.055~	-0.052~	-0.046
				(0.030)	(0.030)	(0.030)
Cumulative Academic GPA				-0.020	-0.026	-0.015
				(0.019)	(0.019)	(0.018)
High School Region [NE = OR]						
North Central					0.066*	0.050~
					(0.027)	(0.026)
South					0.033	0.029
					(0.031)	(0.030)
West					0.022	0.017
					(0.032)	(0.033)
High School Type [Public = OR]						
Catholic					-0.013	-0.016
					(0.030)	(0.027)
Private					-0.157***	-0.140***
					(0.035)	(0.036)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.057***
						(0.004)
Observations	4,040	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 10. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of high school fixed effects, key demographic factors observed during adolescence, and high school course-taking and academic perfomance

	(1)	(2)
Educational Attainment Level and Selectivity [HS Diploma = OR]		
Less than High School Diploma	-0.006	0.009
	(0.040)	(0.041)
Certificate	-0.086*	-0.034
	(0.040)	(0.046)
Associate's Degree	-0.043	-0.018
	(0.032)	(0.037)
Non-selective Bachelor's Degree	-0.090***	-0.042
	(0.024)	(0.026)
Moderately Selective Bachelor's Degree	-0.070~	-0.013
	(0.039)	(0.043)
Very Selective Bachelor's Degree	-0.159***	-0.111*
	(0.039)	(0.051)
Observed Confounders		
Race/ethnicity [White = OR]		
Hispanic	0.011	0.019
	(0.027)	(0.031)
Black	0.126***	0.175***
	(0.032)	(0.044)
Other	-0.007	0.054
	(0.045)	(0.049)
Respondent Born in U.S. [No = OR]	0.073	0.093~
	(0.046)	(0.052)
Respondent Lives with both Biological Parents [No = OR]	0.018	0.033
	(0.023)	(0.023)
Respondent is First Generation College Student [No = OR]	-0.023	-0.004
	(0.023)	(0.025)
Yearly Family Income	-0.015**	-0.017**
	(0.005)	(0.006)
Locus of Control	-0.010	-0.016
	(0.010)	(0.011)
Mathematics Test Score	-0.000	0.001
	(0.001)	(0.001)

Table 10 [cont].		
Respondent Completed Advanced Mathematics [No = OR]	-0.070**	-0.095***
	(0.022)	(0.028)
Respondent Completed AP English [No = OR]	0.010	0.007
	(0.030)	(0.044)
Respondent Completed 3+ Years Foreign Language [No = OR]	0.014	0.027
	(0.022)	(0.026)
Respondent Completed Advanced Science [No = OR]	0.007	-0.005
	(0.026)	(0.032)
Cumulative Academic GPA	0.018	0.005
	(0.016)	(0.018)
Respondent's BMI	0.057***	0.056***
	(0.003)	(0.003)
Observations	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10; Model 2 contains HS fixed effects

Source: High School and Beyond Sophomore Cohort

Table 11. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of high school fixed effects, key demographic factors observed during adolescence, and high school course-taking and academic performance

	(1)	(2)
Educational Attainment Level and Selectivity [HS Diploma = OR]		
Less than High School Diploma	-0.047	-0.026
	(0.041)	(0.044)
Certificate	0.047	0.024
	(0.044)	(0.051)
Associate's Degree	-0.028	-0.026
	(0.042)	(0.045)
Non-selective Bachelor's Degree	-0.087***	-0.087**
	(0.026)	(0.029)
Moderately Selective Bachelor's Degree	-0.056	-0.053
	(0.048)	(0.056)
Very Selective Bachelor's Degree	-0.124*	-0.018
	(0.057)	(0.070)
Observed Confounders		
Race/ethnicity [White = OR]		
Hispanic	-0.028	-0.033
	(0.030)	(0.031)
Black	0.094**	0.117**
	(0.037)	(0.044)
Other	-0.002	0.011
	(0.055)	(0.060)
Respondent Born in U.S. [No = OR]	0.005	0.042
	(0.063)	(0.060)
Respondent Lives with both Biological Parents [No = OR]	0.040~	0.029
	(0.023)	(0.027)
Respondent is First Generation College Student [No = OR]	0.003	-0.002
	(0.027)	(0.029)
Yearly Family Income	-0.010~	-0.005
	(0.005)	(0.006)
Locus of Control	-0.002	-0.012
	(0.012)	(0.012)
Mathematics Test Score	0.002	0.001
	(0.001)	(0.001)

Table 11 [cont].		
Respondent Completed Advanced Mathematics [No = OR]	0.022	0.046
	(0.025)	(0.029)
Respondent Completed AP English [No = OR]	0.012	0.005
	(0.038)	(0.052)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.003	-0.039
	(0.032)	(0.038)
Respondent Completed Advanced Science [No = OR]	-0.046	-0.008
	(0.030)	(0.034)
Cumulative Academic GPA	-0.015	-0.035~
	(0.018)	(0.020)
Respondent's BMI	0.057***	0.057***
	(0.004)	(0.004)
Observations	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10; Model 2 contains HS fixed effects

Source: High School and Beyond Sophomore Cohort

Chapter 5: Heterogeneous Educational Returns to Midlife Obesity

Introduction

Indeed, a common theme throughout this dissertation has been the relationship between students' social origins and their position within the academic status hierarchy during high school and college. This is a potentially important consideration because students who complete higher and more select educational outcomes systematically differ from those who do not with respect to their exposure—both at home and at school—to a class based habitus (Bourdieu 1986) that promotes thin ideals and sanctions overweight and obesity (Crosnoe 2001). That said, the link between family background and students' secondary and postsecondary outcomes is not absolute.

When surrounded by socioeconomically advantaged peers, and their accompanying sanctions and stigma with respect to body mass, high-SES students may serve as "vessels of influence" from their own parents to their less-advantaged peers (Crosnoe, Frank, and Mueller 2008; Fletcher et al. 1995).

In such instances, the resources that lower-SES and minority students get from higher-SES and/or white peers with respect to body mass may substitute for the body mass norms these students otherwise receive from their parents. Thus, although parental education may tap into the heritability of a range of structural and social advantages that have long term implications for students schooling and body mass trajectories, occupying an elite academic space in high school or college may disrupt this process by exposing students to different norms with respect to body mass and ideals.

Research Question

To evaluate the extent to which there is hetereogeneity in the educational returns to body mass, the last analytic chapter of this dissertation is guided by the following research question:

1. Do the body mass returns to students secondary and postsecondary outcomes vary across racial/ethnic and socioeconomic subgroups?

Methods

To address this research question, I employ the same analytic strategy outlined in the preceding chapter; however, I estimate the models separately for each racial/ethnic and socioeconomic subgroup. As a second step, I compare the estimated effects for each group using the post-estimation command, “suest”, to capture meaningful group differences in the returns to education.

Results

Turning to the multivariate results, Table 12 presents the results from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among white women, while also considering if there is an independent association between academic course-taking and performance in high school and obesity net of these attainment outcomes.

The results for white women largely resemble the results for the pooled sample of women (see Table 8). In particular, even once observed differences socioeconomic, academic, and structural factors known to influence long-term outcomes with respect to schooling and body mass are accounted for, women who complete a bachelor’s degree at a the most selective college or university remain approximately 17 percentage points less likely to be obese at midlife than their same-race counterparts who terminate their schooling after graduating from high school. In terms of academic course-taking and performance in high school, women who complete advanced math by the end of high school are approximately 8 percentage points less likely to be obese in midlife than their peers who do not reach this educational milestone. These results are substantively consistent in models predicting BMI in midlife (see Table 34).

With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a very selective bachelor's degree and obesity during midlife among white women, 48 percent of cases would have to be replaced with cases for which there is an effect of zero. In terms of the relationship between advanced math course-taking and obesity at midlife, 40 percent of cases would need to be replaced with cases for which there is an effect of zero to invalidate this inference.

Turning now to the results for white men, Table 13 shows that individuals who complete a non-selective bachelor's degree are approximately 7 percentage points less likely to be obese at midlife than their same-race peers who terminate schooling after completing high school net of observed confounders. These findings are echoed when BMI is the outcome (see Table 35). With respect to the robustness of this finding, in order to invalidate this inference, 18 percent of cases would have to be replaced with cases for which there is an effect of zero. Taken together, the findings for the white sample reveal that the relationship between education and obesity appears to be more strong and robust (in terms of sample replacement) for women than men ($p<0.05$).

Table 14 presents the results for black women. Looking across the models, it is clear that the relationship between graduating from a very selective college or university and obesity in midlife largely operates through the observed confounders, as this coefficient is attenuated by nearly 65 percent between Model 1 and Model 6, and is no longer statistically significant in Model 6. Although this may partially be a function of sample size, the attenuation of the coefficient is notable. That said, black women who graduate from a moderately selective college or university are approximately 26 percentage points less likely to be obese at midlife compared to their counterparts who terminate their education after graduating from high school, net of confounders. With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a moderately selective bachelor's degree and obesity during midlife among black women, 17 percent of cases would have to be replaced with cases for which there is an effect of zero, although this threshold is partially a function of the smaller sample size.

Comparing the results for black women to those for white women, it appears that the effect of graduating from a moderately selective college or university is larger among black women than among white women ($p<0.05$). That said, education does not appear to independently predict BMI among black women net of the observed confounders (see Table 36); thus, this association appears to be unique to obesity. Moreover, there does not appear to be an independent association between academic course-taking and performance in high school and obesity in midlife among black women.

Turning now to the results for black men, the results pertaining to educational attainment level and selectivity are largely consistent to those observed for black women ($p<0.05$). Among black men, the relationship between graduating from a very selective college or university is attenuated by over 80 percent from Model 1 to Model 6. By Model 6, none of the educational attainment outcomes are significant predictors of midlife obesity; however, this may largely be a function of the underrepresentation of black men in these spaces, as reflected by the standard errors. That said, there does seem to be an association between high school course-taking and obesity at midlife among black men.

In particular, men who complete three or more years of foreign language by the end of high school are approximately 27 percentage points less likely to be obese in midlife compared to black men who complete less than three years of foreign language in high school. With respect to the robustness of this finding, in order to invalidate this inference 15 percent of cases would have to be replaced with cases for which there is an effect of zero. Importantly, the educational measures I consider do not appear to predict BMI among black men net of the observed confounders (see Table 37); thus, the relationship between high school course-taking and body mass appears to be unique to obesity.

Table 16 presents the results for Hispanic women. In Model 1, the results largely echo those observed for white women in Table 12 ($p<0.05$). Looking across the models in Table 16, it becomes clear that selection with respect to observed confounding accounts for a significant amount of educational variation in obesity. Although the relationship between graduating from a very selective college or university and obesity at midlife is attenuated by nearly 50 percent between Model 1 and Model 6, Hispanic women who complete this educational milestone remain approximately 22 percentage points less likely to be obese at midlife than their peers who terminate their education after high school.

With respect to the robustness of this finding, in order to invalidate this inference 13 percent of cases would have to be replaced with cases for which there is an effect of zero. The relationship between educational attainment level and selectivity and body mass in midlife is substantively consistent when BMI is the outcome of interest (see Table 38). Although the relationship between educational attainment level and selectivity and obesity at midlife is similar for white and Hispanic women, looking down the rows of Table 16, it appears that Hispanic women do not reap the same returns as white women from completing advanced mathematics (or other advances courses) in high school (<0.05).

Table 17 presents the results for Hispanic men. In terms of the relationship between educational attainment level and selectivity, it appears that graduating from a moderately selective college or university predicts obesity at midlife. With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a moderately selective bachelor's degree and obesity during midlife among Hispanic men, 17 percent of cases would have to be replaced with cases for which there is an effect of zero. Notably, the relationship between educational attainment level and selectivity and midlife body mass among Hispanic men does not appear when BMI is the outcome (see Table 39).

Table 18 presents the results from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, while also considering if there is an independent association between academic course-taking and performance in high school and obesity net of these attainment outcomes. These results largely resemble the results for the pooled female sample of women (see Table 8). In particular, even once observed differences socioeconomic, academic, and structural factors known to influence long-term outcomes with respect to schooling and body mass are accounted for, women who complete a bachelor's degree at the most selective college or university remain approximately 16 percentage points less likely to be obese at midlife than their counterparts who terminate their schooling after graduating from high school. These results are not statistically distinguishable from the results observed for the white female sample ($p<0.05$).

In terms of academic course-taking and performance in high school, women who complete advanced math by the end of high school are approximately 8 percentage points less likely to be obese in midlife than their peers who do not reach this educational milestone. The findings with respect to secondary and postsecondary schooling are substantively consistent in models predicting obesity using logistic regression (see Table 40) and models predicting midlife BMI as the outcome (see Table 42).

With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a very selective bachelor's degree or completing advanced math in high school among women who do not have at least one parent with a bachelor's degree, 40 percent of cases would have to be replaced with cases for which there is an effect of zero.

Table 19 shows these results for men. In contrast to the results discussed above, among men who do not have at least one parent with a bachelor's degree, there does not appear to be a value added of attending a selective college or university. In particular, these results suggest that men who complete a non-selective bachelor's degree are approximately 9 percentage points less likely to be obese at midlife than men who end their educational career after graduating from high school. These results are not statistically distinguishable from the results observed for the full male sample in Table 9 ($p<0.05$). These findings are substantively consistent in models predicting obesity using logistic regression (see Table 41) and models predicting midlife BMI as the outcome (see Table 43).

With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a non-selective bachelor's degree and obesity in midlife among men who do not have at least one parent with a bachelor's degree, 35 percent of cases would have to be replaced with cases for which there is an effect of zero.

Table 20 presents the results from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, while also considering if there is an independent association between academic course-taking and performance in high school and obesity net of these attainment outcomes. These results largely resemble the results for the pooled female sample of women (see Table 8); however, there is a notable exception. In particular, even once observed differences socioeconomic, academic, and structural factors known to influence long-term outcomes with respect to schooling and body mass are accounted for, women who complete a bachelor's degree at the most selective college or university remain approximately 21 percentage points less likely to be obese at midlife than their counterparts who terminate their schooling after completing high school. These results are not statistically distinguishable from the results observed for the white female or the female sample for students whose parents do not have a bachelor's degree sample ($p<0.05$). Moreover, roughly 25 percent of cases would have to be replaced with cases for which there is an effect of zero to invalidate this inference.

With respect to the relationship between advanced course-taking in high school and obesity at midlife, however, it appears that women who have at least one parent with a bachelor's degree who complete advanced math are not statically distinguishable from their peers who do not once differences in educational attainment level and selectivity are accounted for. The findings with respect to postsecondary schooling and the non-finding with respect to high school course-taking are substantively consistent in models predicting obesity using logistic regression (see Table 44) and models predicting midlife BMI as the outcome (see Table 46).

Table 21 presents these results for men. In general, it appears that the results for more privileged men resemble the findings for white women. In particular, even once observed differences socioeconomic, academic, and structural factors known to influence long-term outcomes with respect to schooling and body mass are accounted for, men who complete a bachelor's degree at the most selective college or university remain approximately 21 percentage points less likely to be obese at midlife than their counterparts who terminate their schooling after graduating from high school. These results are statistically distinguishable from the results observed for other male samples ($p<0.05$).

In terms of academic course-taking and performance in high school, men who complete four or more years of foreign language by the end of high school are approximately 10 percentage points less likely to be obese in midlife than their peers who do not reach this educational milestone. The findings with respect to secondary and postsecondary schooling are substantively consistent in models predicting obesity using logistic regression (see Table 45); however, these factors do not significantly predict midlife body mass in models predicting BMI as the outcome (see Table 47). Thus, these findings appear to be unique to avoiding high-BMI.

With respect to the robustness of these findings, in order to invalidate inferences about the relationship between completing a very selective bachelor's degree among men who have at least one parent with a bachelor's degree, 22 percent of cases would have to be replaced with cases for which there is an effect of zero. In terms of high school course-taking, only 4 percent of cases would have to be replaced with cases for which there is an effect of zero to invalidate this inference.

Table 12. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among white women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-0.047	-0.064	-0.074	-0.068	-0.063	-0.049
	(0.057)	(0.057)	(0.058)	(0.058)	(0.058)	(0.055)
Certificate	-0.079~	-0.079~	-0.076~	-0.080~	-0.085~	-0.100*
	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)	(0.045)
Associate's Degree	-0.060	-0.050	-0.046	-0.045	-0.041	-0.048
	(0.039)	(0.039)	(0.040)	(0.039)	(0.040)	(0.035)
Non-selective Bachelor's Degree	-0.157***	-0.131***	-0.118***	-0.112***	-0.112***	-0.100***
	(0.025)	(0.026)	(0.028)	(0.029)	(0.029)	(0.026)
Moderately Selective Bachelor's	-0.161***	-0.110**	-0.092*	-0.080~	-0.071	-0.065
Degree	(0.039)	(0.041)	(0.043)	(0.045)	(0.046)	(0.043)
Very Selective Bachelor's Degree	-0.265***	-0.204***	-0.181***	-0.173***	-0.162***	-0.167***
	(0.035)	(0.038)	(0.042)	(0.047)	(0.046)	(0.044)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.136*	0.136*	0.141*	0.132*	0.114~
		(0.058)	(0.057)	(0.058)	(0.059)	(0.067)
Respondent Lives with both		0.006	0.005	0.005	0.003	0.005
Biological Parents [No = OR]		(0.029)	(0.029)	(0.029)	(0.029)	(0.028)
Respondent is First Generation		-0.026	-0.024	-0.021	-0.019	-0.020
College Student [No = OR]		(0.027)	(0.027)	(0.027)	(0.027)	(0.025)
Yearly Family Income		-0.024***	-0.023***	-0.023***	-0.020**	-0.013*
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.010	-0.011	-0.010	-0.011
			(0.014)	(0.014)	(0.014)	(0.013)
Mathematics Test Score			-0.001	-0.001	-0.001	-0.000
			(0.001)	(0.002)	(0.002)	(0.002)
Respondent Completed Advanced				-0.085***	-0.082***	-0.079***
Mathematics [No = OR]				(0.024)	(0.024)	(0.024)
Respondent Completed AP English				0.020	0.017	0.011
[No = OR]				(0.035)	(0.035)	(0.033)
Respondent Completed 3+ Years				0.008	0.026	0.017
Foreign Language [No = OR]				(0.024)	(0.025)	(0.024)

Table 12 [cont].						
Respondent Completed Advanced Science [No = OR]				0.011	0.014	0.019
				(0.030)	(0.030)	(0.028)
Cumulative Academic GPA				0.008	0.000	0.013
				(0.020)	(0.020)	(0.019)
High School Region [NE = OR]						
North Central					0.032	0.031
					(0.029)	(0.028)
South					0.046	0.069*
					(0.033)	(0.031)
West					-0.009	-0.003
					(0.032)	(0.031)
High School Type [Public = OR]						
Catholic					-0.046~	-0.029
					(0.027)	(0.025)
Private					-0.040	-0.027
					(0.053)	(0.049)
High School Enrollment Size					-0.000*	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.059***
						(0.004)
Observations	2,860	2,860	2,860	2,860	2,860	2,860

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 13. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among white men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-0.050	-0.054	-0.044	-0.051	-0.051	-0.010
	(0.047)	(0.047)	(0.048)	(0.049)	(0.049)	(0.049)
Certificate	0.072	0.070	0.071	0.072	0.076	0.072
	(0.061)	(0.060)	(0.059)	(0.060)	(0.058)	(0.048)
Associate's Degree	-0.031	-0.027	-0.031	-0.029	-0.033	-0.001
	(0.051)	(0.051)	(0.051)	(0.050)	(0.050)	(0.046)
Non-selective Bachelor's Degree	-0.096***	-0.085**	-0.098***	-0.083**	-0.084**	-0.069*
	(0.028)	(0.028)	(0.030)	(0.031)	(0.032)	(0.029)
Moderately Selective Bachelor's Degree	-0.057	-0.036	-0.056	-0.028	-0.007	-0.008
	(0.053)	(0.053)	(0.055)	(0.059)	(0.058)	(0.054)
Very Selective Bachelor's Degree	-0.228***	-0.192**	-0.219**	-0.187*	-0.124~	-0.095
	(0.064)	(0.064)	(0.067)	(0.073)	(0.072)	(0.066)
Observed Confounders						
Respondent Born in U.S. [No = OR]		-0.014	-0.017	-0.027	-0.032	-0.033
		(0.109)	(0.110)	(0.110)	(0.113)	(0.097)
Respondent Lives with both Biological Parents [No = OR]		0.039	0.039	0.041	0.034	0.043
		(0.030)	(0.030)	(0.030)	(0.030)	(0.029)
Respondent is First Generation College Student [No = OR]		0.009	0.007	0.007	0.009	0.010
		(0.033)	(0.033)	(0.033)	(0.032)	(0.030)
Yearly Family Income		-0.021**	-0.022**	-0.021**	-0.020**	-0.016*
		(0.007)	(0.007)	(0.007)	(0.007)	(0.006)
Locus of Control			0.002	0.004	0.006	-0.004
			(0.014)	(0.015)	(0.015)	(0.014)
Mathematics Test Score			0.002	0.002	0.002	0.002
			(0.001)	(0.002)	(0.002)	(0.001)
Respondent Completed Advanced Mathematics [No = OR]				0.014	0.016	0.014
				(0.032)	(0.032)	(0.029)
Respondent Completed AP English [No = OR]				0.023	0.028	-0.002
				(0.050)	(0.049)	(0.043)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.041	-0.017	0.008
				(0.039)	(0.039)	(0.036)

Table 13 [cont].

Respondent Completed Advanced Science [No = OR]				-0.050	-0.047	-0.041
				(0.033)	(0.033)	(0.032)
Cumulative Academic GPA				-0.017	-0.024	-0.015
				(0.022)	(0.022)	(0.021)
High School Region [NE = OR]						
North Central					0.061*	0.048~
					(0.030)	(0.029)
South					0.045	0.037
					(0.037)	(0.035)
West					0.006	0.005
					(0.038)	(0.038)
High School Type [Public = OR]						
Catholic					-0.024	-0.026
					(0.034)	(0.031)
Private					-0.175***	-0.150***
					(0.037)	(0.039)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.060***
						(0.004)
Observations	2,580	2,580	2,580	2,580	2,580	2,580

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 14. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among black women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.248**	0.238**	0.251**	0.251**	0.254**	0.148~
	(0.085)	(0.085)	(0.086)	(0.087)	(0.085)	(0.080)
Certificate	-0.076	-0.068	-0.072	-0.084	-0.100	-0.105
	(0.118)	(0.119)	(0.120)	(0.114)	(0.112)	(0.099)
Associate's Degree	0.046	0.056	0.035	0.031	0.021	0.034
	(0.154)	(0.157)	(0.157)	(0.160)	(0.161)	(0.144)
Non-selective Bachelor's Degree	-0.128	-0.090	-0.110	-0.086	-0.075	-0.036
	(0.088)	(0.088)	(0.096)	(0.102)	(0.100)	(0.095)
Moderately Selective Bachelor's Degree	-0.398***	-0.338***	-0.368**	-0.471***	-0.442***	-0.257*
	(0.097)	(0.101)	(0.114)	(0.109)	(0.110)	(0.109)
Very Selective Bachelor's Degree	-0.338*	-0.260	-0.310~	-0.178	-0.128	-0.122
	(0.148)	(0.169)	(0.186)	(0.201)	(0.182)	(0.135)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.020	0.020	-0.010	-0.043	-0.082
		(0.147)	(0.147)	(0.150)	(0.146)	(0.124)
Respondent Lives with both Biological Parents [No = OR]		0.019	0.018	0.017	0.017	0.031
		(0.060)	(0.060)	(0.060)	(0.059)	(0.061)
Respondent is First Generation College Student [No = OR]		-0.041	-0.046	-0.005	-0.023	-0.034
		(0.114)	(0.112)	(0.109)	(0.114)	(0.104)
Yearly Family Income		-0.028	-0.029	-0.027	-0.024	-0.023
		(0.018)	(0.019)	(0.018)	(0.018)	(0.018)
Locus of Control			0.001	-0.001	0.001	-0.012
			(0.036)	(0.036)	(0.037)	(0.034)
Mathematics Test Score			0.003	0.002	0.002	0.002
			(0.005)	(0.005)	(0.005)	(0.005)
Respondent Completed Advanced Mathematics [No = OR]				-0.026	-0.042	-0.064
				(0.105)	(0.105)	(0.092)
Respondent Completed AP English [No = OR]				0.255*	0.240*	0.112
				(0.108)	(0.101)	(0.107)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.188*	-0.174*	-0.155~
				(0.091)	(0.088)	(0.089)

Table 14 [cont].						
Respondent Completed Advanced				-0.155	-0.173	-0.092
Science [No = OR]				(0.110)	(0.108)	(0.107)
Cumulative Academic GPA				0.045	0.045	0.074~
				(0.048)	(0.047)	(0.041)
High School Region [NE = OR]						
North Central					0.147	0.123
					(0.089)	(0.079)
South					0.100	0.087
					(0.085)	(0.078)
West					0.010	-0.025
					(0.134)	(0.135)
High School Type [Public = OR]						
Catholic					0.016	-0.052
					(0.145)	(0.113)
Private					-0.098	-0.063
					(0.161)	(0.167)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.057***
						(0.008)
Observations	560	560	560	560	560	560

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 15. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among black men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-0.119	-0.121	-0.128	-0.102	-0.095	-0.053
	(0.115)	(0.109)	(0.108)	(0.098)	(0.101)	(0.104)
Certificate	-0.348	-0.328	-0.331	-0.338	-0.386	-0.366
	(0.232)	(0.241)	(0.246)	(0.247)	(0.261)	(0.244)
Associate's Degree	-0.173	-0.179	-0.169	-0.174	-0.135	-0.126
	(0.189)	(0.185)	(0.179)	(0.186)	(0.186)	(0.208)
Non-selective Bachelor's Degree	-0.152~	-0.148~	-0.109	-0.128	-0.120	-0.139
	(0.088)	(0.090)	(0.098)	(0.101)	(0.099)	(0.093)
Moderately Selective Bachelor's Degree	-0.227	-0.221	-0.196	-0.232	-0.357	-0.221
	(0.189)	(0.189)	(0.209)	(0.262)	(0.249)	(0.208)
Very Selective Bachelor's Degree	-0.374**	-0.344*	-0.257	-0.175	-0.098	-0.107
	(0.141)	(0.160)	(0.175)	(0.220)	(0.228)	(0.215)
Observed Confounders						
Respondent Born in U.S. [No = OR]		-0.020	-0.023	-0.039	-0.032	-0.109
		(0.206)	(0.212)	(0.216)	(0.224)	(0.208)
Respondent Lives with both Biological Parents [No = OR]		-0.089	-0.088	-0.078	-0.097	-0.039
		(0.078)	(0.079)	(0.079)	(0.077)	(0.068)
Respondent is First Generation College Student [No = OR]		0.013	0.026	0.059	0.046	-0.020
		(0.108)	(0.106)	(0.103)	(0.101)	(0.091)
Yearly Family Income		0.008	0.010	0.010	0.013	0.017
		(0.022)	(0.021)	(0.021)	(0.021)	(0.018)
Locus of Control			-0.000	0.002	0.000	-0.008
			(0.040)	(0.040)	(0.041)	(0.037)
Mathematics Test Score			-0.004	-0.003	-0.004	0.000
			(0.005)	(0.005)	(0.005)	(0.005)
Respondent Completed Advanced Mathematics [No = OR]				0.110	0.124	0.044
				(0.112)	(0.114)	(0.105)
Respondent Completed AP English [No = OR]				-0.092	-0.074	-0.190
				(0.168)	(0.180)	(0.204)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.215*	-0.292*	-0.266*
				(0.106)	(0.121)	(0.115)

Table 15 [cont].						
Respondent Completed Advanced				-0.071	-0.027	-0.075
Science [No = OR]				(0.129)	(0.129)	(0.127)
Cumulative Academic GPA				0.008	-0.017	0.029
				(0.060)	(0.058)	(0.050)
High School Region [NE = OR]						
North Central					-0.057	-0.113
					(0.119)	(0.115)
South					-0.108	-0.093
					(0.117)	(0.112)
West					-0.068	-0.105
					(0.135)	(0.127)
High School Type [Public = OR]						
Catholic					0.023	0.042
					(0.119)	(0.093)
Private					0.322	0.188
					(0.323)	(0.289)
High School Enrollment Size					-0.000~	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.062***
						(0.011)
Observations	430	430	430	430	430	430

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 16. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among Hispanic women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.041	0.041	0.031	0.020	0.031	0.036
	(0.071)	(0.070)	(0.071)	(0.074)	(0.074)	(0.069)
Certificate	-0.122	-0.101	-0.094	-0.095	-0.077	-0.043
	(0.109)	(0.109)	(0.112)	(0.110)	(0.112)	(0.113)
Associate's Degree	-0.183*	-0.168*	-0.154~	-0.145~	-0.147~	-0.134
	(0.083)	(0.084)	(0.085)	(0.086)	(0.086)	(0.082)
Non-selective Bachelor's Degree	-0.097	-0.057	-0.030	-0.017	-0.022	-0.030
	(0.078)	(0.080)	(0.085)	(0.088)	(0.090)	(0.084)
Moderately Selective Bachelor's Degree	-0.302***	-0.209*	-0.168~	-0.166	-0.171	-0.178
	(0.077)	(0.083)	(0.098)	(0.118)	(0.118)	(0.111)
Very Selective Bachelor's Degree	-0.403***	-0.249***	-0.214**	-0.214*	-0.207*	-0.222*
	(0.034)	(0.065)	(0.080)	(0.099)	(0.101)	(0.099)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.002	-0.000	0.006	-0.005	0.061
		(0.085)	(0.086)	(0.086)	(0.087)	(0.084)
Respondent Lives with both Biological Parents [No = OR]		0.084	0.081	0.080	0.068	0.066
		(0.058)	(0.057)	(0.057)	(0.058)	(0.055)
Respondent is First Generation College Student [No = OR]		-0.062	-0.053	-0.064	-0.063	-0.064
		(0.071)	(0.069)	(0.071)	(0.073)	(0.076)
Yearly Family Income		-0.037*	-0.034*	-0.034*	-0.030~	-0.022
		(0.015)	(0.015)	(0.015)	(0.016)	(0.015)
Locus of Control			-0.024	-0.020	-0.021	-0.007
			(0.031)	(0.031)	(0.031)	(0.027)
Mathematics Test Score			-0.002	-0.000	-0.001	-0.001
			(0.004)	(0.004)	(0.004)	(0.004)
Respondent Completed Advanced Mathematics [No = OR]				0.001	0.005	0.037
				(0.084)	(0.084)	(0.080)
Respondent Completed AP English [No = OR]				-0.004	-0.015	0.023
				(0.115)	(0.120)	(0.121)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.041	0.052	0.051
				(0.075)	(0.075)	(0.071)

Table 16 [cont].						
Respondent Completed Advanced Science [No = OR]				-0.085	-0.071	-0.046
				(0.068)	(0.071)	(0.062)
Cumulative Academic GPA				-0.037	-0.039	-0.014
				(0.042)	(0.042)	(0.040)
High School Region [NE = OR]						
North Central					-0.034	-0.030
					(0.082)	(0.073)
South					0.024	0.012
					(0.077)	(0.068)
West					0.027	0.031
					(0.072)	(0.065)
High School Type [Public = OR]						
Catholic					-0.009	-0.017
					(0.064)	(0.058)
Private					-0.083	-0.065
					(0.107)	(0.113)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.049***
						(0.007)
Observations	840	840	840	840	840	840

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 17. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among Hispanic men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.033	-0.015	0.003	-0.014	-0.034	-0.052
	(0.083)	(0.082)	(0.084)	(0.084)	(0.084)	(0.082)
Certificate	0.001	0.001	-0.021	-0.004	-0.032	-0.023
	(0.119)	(0.118)	(0.122)	(0.124)	(0.124)	(0.116)
Associate's Degree	-0.057	-0.071	-0.090	-0.070	-0.079	-0.094
	(0.107)	(0.109)	(0.110)	(0.109)	(0.103)	(0.101)
Non-selective Bachelor's Degree	-0.133~	-0.139*	-0.178*	-0.168*	-0.160*	-0.135~
	(0.070)	(0.071)	(0.076)	(0.080)	(0.077)	(0.079)
Moderately Selective Bachelor's Degree	-0.291***	-0.304***	-0.360***	-0.303***	-0.249**	-0.257**
	(0.058)	(0.066)	(0.071)	(0.086)	(0.087)	(0.087)
Very Selective Bachelor's Degree	0.310	0.281	0.218	0.262	0.222	0.194
	(0.201)	(0.203)	(0.219)	(0.224)	(0.235)	(0.212)
Observed Confounders						
Respondent Born in U.S. [No = OR]		-0.004	-0.006	0.003	0.005	-0.005
		(0.088)	(0.086)	(0.086)	(0.092)	(0.093)
Respondent Lives with both Biological Parents [No = OR]		0.075	0.075	0.058	0.052	0.048
		(0.061)	(0.060)	(0.059)	(0.059)	(0.056)
Respondent is First Generation College Student [No = OR]		-0.008	-0.027	-0.027	-0.033	-0.017
		(0.078)	(0.079)	(0.076)	(0.074)	(0.068)
Yearly Family Income		0.002	-0.002	-0.003	-0.003	0.002
		(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Locus of Control			0.013	0.015	0.018	0.018
			(0.027)	(0.028)	(0.029)	(0.028)
Mathematics Test Score			0.004	0.007~	0.007~	0.006~
			(0.003)	(0.004)	(0.004)	(0.004)
Respondent Completed Advanced Mathematics [No = OR]				0.061	0.078	0.064
				(0.087)	(0.089)	(0.086)
Respondent Completed AP English [No = OR]				0.148	0.164	0.176~
				(0.112)	(0.104)	(0.094)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.053	0.082	0.088
				(0.075)	(0.071)	(0.062)

Table 17 [cont].						
Respondent Completed Advanced Science [No = OR]				-0.045	-0.035	-0.007
				(0.085)	(0.084)	(0.087)
Cumulative Academic GPA				-0.103*	-0.109*	-0.104*
				(0.046)	(0.046)	(0.048)
High School Region [NE = OR]						
North Central					0.232**	0.231**
					(0.074)	(0.072)
South					0.110~	0.117~
					(0.064)	(0.065)
West					0.122~	0.130*
					(0.066)	(0.065)
High School Type [Public = OR]						
Catholic					-0.032	-0.040
					(0.075)	(0.067)
Private					-0.205*	-0.231**
					(0.082)	(0.079)
High School Enrollment Size					0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.039***
						(0.009)
Observations	800	800	800	800	800	800

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 18. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.012	-0.004	-0.012	-0.011	-0.006	-0.010
	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)	(0.041)
Certificate	-0.078~	-0.070	-0.068	-0.069	-0.073~	-0.085*
	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)	(0.041)
Associate's Degree	-0.090*	-0.063~	-0.059	-0.057	-0.053	-0.053
	(0.037)	(0.037)	(0.038)	(0.038)	(0.038)	(0.034)
Non-selective Bachelor's Degree	-0.157***	-0.115***	-0.104***	-0.091**	-0.089**	-0.081**
	(0.025)	(0.026)	(0.028)	(0.029)	(0.030)	(0.026)
Moderately Selective Bachelor's Degree	-0.169***	-0.096*	-0.079	-0.061	-0.052	-0.053
	(0.045)	(0.046)	(0.048)	(0.051)	(0.051)	(0.046)
Very Selective Bachelor's Degree	-0.296***	-0.227***	-0.205***	-0.191***	-0.173***	-0.161**
	(0.036)	(0.037)	(0.042)	(0.047)	(0.049)	(0.049)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.060*	0.052~	0.055~	0.066*	0.017
		(0.031)	(0.031)	(0.031)	(0.031)	(0.029)
Black		0.183***	0.176***	0.177***	0.182***	0.128***
		(0.034)	(0.035)	(0.035)	(0.036)	(0.034)
Other		-0.046	-0.048	-0.049	-0.033	-0.021
		(0.048)	(0.049)	(0.049)	(0.051)	(0.050)
Respondent Born in U.S. [No = OR]		0.086~	0.085~	0.089~	0.076	0.076
		(0.048)	(0.048)	(0.048)	(0.049)	(0.052)
Respondent Lives with both Biological Parents [No = OR]		0.017	0.016	0.017	0.014	0.018
		(0.027)	(0.027)	(0.027)	(0.027)	(0.025)
Yearly Family Income		-0.025***	-0.024***	-0.024***	-0.022***	-0.015*
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.006	-0.006	-0.005	-0.006
			(0.012)	(0.012)	(0.012)	(0.011)
Mathematics Test Score			-0.001	-0.000	-0.000	0.000
			(0.001)	(0.002)	(0.002)	(0.001)

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Table 18 [cont].						
Respondent Completed Advanced				-0.090***	-0.086**	-0.082**
Mathematics [No = OR]				(0.026)	(0.026)	(0.025)
Respondent Completed AP English				0.021	0.020	0.003
[No = OR]				(0.038)	(0.038)	(0.034)
Respondent Completed 3+ Years				0.011	0.029	0.018
Foreign Language [No = OR]				(0.027)	(0.029)	(0.027)
Respondent Completed Advanced				-0.025	-0.022	-0.010
Science [No = OR]				(0.031)	(0.031)	(0.030)
Cumulative Academic GPA				-0.000	-0.005	0.012
				(0.019)	(0.019)	(0.017)
High School Region [NE = OR]						
North Central					0.046	0.039
					(0.029)	(0.028)
South					0.049	0.061*
					(0.031)	(0.029)
West					-0.002	0.007
					(0.032)	(0.030)
High School Type [Public = OR]						
Catholic					-0.042	-0.029
					(0.028)	(0.027)
Private					-0.027	0.001
					(0.065)	(0.054)
High School Enrollment Size					-0.000~	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.058***
						(0.003)
Observations	3,810	3,810	3,810	3,810	3,810	3,810

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 19. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.050	-0.051	-0.040	-0.048	-0.048	-0.023
	(0.041)	(0.041)	(0.043)	(0.043)	(0.043)	(0.043)
Certificate	0.032	0.042	0.042	0.042	0.042	0.050
	(0.057)	(0.057)	(0.056)	(0.057)	(0.055)	(0.046)
Associate's Degree	-0.068	-0.059	-0.066	-0.062	-0.065	-0.024
	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)	(0.042)
Non-selective Bachelor's Degree	-0.110***	-0.101***	-0.118***	-0.106***	-0.107***	-0.088**
	(0.027)	(0.028)	(0.029)	(0.030)	(0.030)	(0.029)
Moderately Selective Bachelor's Degree	-0.116*	-0.093~	-0.119*	-0.101~	-0.079	-0.070
	(0.051)	(0.051)	(0.054)	(0.058)	(0.057)	(0.056)
Very Selective Bachelor's Degree	-0.093	-0.073	-0.108	-0.076	-0.043	-0.051
	(0.099)	(0.100)	(0.104)	(0.105)	(0.103)	(0.095)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.019	-0.007	-0.010	-0.006	-0.021
		(0.032)	(0.033)	(0.033)	(0.033)	(0.033)
Black		0.100*	0.115**	0.115**	0.124**	0.105**
		(0.040)	(0.040)	(0.040)	(0.041)	(0.039)
Other		0.001	0.008	0.008	0.020	0.014
		(0.070)	(0.070)	(0.069)	(0.070)	(0.066)
Respondent Born in U.S. [No = OR]		0.062	0.060	0.057	0.053	0.023
		(0.072)	(0.073)	(0.073)	(0.074)	(0.073)
Respondent Lives with both Biological Parents [No = OR]		0.027	0.026	0.027	0.021	0.034
		(0.027)	(0.027)	(0.027)	(0.027)	(0.025)
Yearly Family Income		-0.013*	-0.014*	-0.014*	-0.012*	-0.007
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.004	-0.002	0.000	-0.008
			(0.013)	(0.013)	(0.013)	(0.013)
Mathematics Test Score			0.002~	0.003~	0.003~	0.003~
			(0.001)	(0.002)	(0.002)	(0.001)

Table 19 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				0.031	0.034	0.022
				(0.031)	(0.031)	(0.029)
Respondent Completed AP English [No = OR]				0.012	0.012	-0.013
				(0.049)	(0.049)	(0.044)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.003	0.024	0.041
				(0.039)	(0.039)	(0.037)
Respondent Completed Advanced Science [No = OR]				-0.044	-0.041	-0.034
				(0.035)	(0.035)	(0.035)
Cumulative Academic GPA				-0.026	-0.031	-0.020
				(0.020)	(0.020)	(0.020)
High School Region [NE = OR]						
North Central					0.060*	0.044
					(0.030)	(0.029)
South					0.017	0.014
					(0.034)	(0.033)
West					0.008	0.007
					(0.036)	(0.037)
High School Type [Public = OR]						
Catholic					-0.043	-0.042
					(0.031)	(0.029)
Private					-0.193***	-0.176***
					(0.044)	(0.041)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.056***
						(0.004)
Observations	3,350	3,350	3,350	3,350	3,350	3,350

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 20. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.005	0.021	0.001	0.052	0.033	0.041
	(0.141)	(0.141)	(0.144)	(0.136)	(0.140)	(0.141)
Certificate	-0.068	-0.097	-0.102	-0.109	-0.097	-0.065
	(0.129)	-0.118	(0.121)	(0.120)	(0.123)	(0.110)
Associate's Degree	0.059	0.065	0.062	0.065	0.068	0.038
	(0.103)	(0.103)	(0.100)	(0.098)	(0.097)	(0.084)
Non-selective Bachelor's Degree	-0.139*	-0.125*	-0.129*	-0.143*	-0.140*	-0.112~
	(0.058)	(0.058)	(0.063)	(0.063)	(0.066)	(0.060)
Moderately Selective Bachelor's Degree	-0.172**	-0.143*	-0.137~	-0.154*	-0.152*	-0.114
	(0.066)	(0.066)	(0.072)	(0.073)	(0.075)	(0.070)
Very Selective Bachelor's Degree	-0.193**	-0.167*	-0.176*	-0.201*	-0.209*	-0.201**
	(0.071)	(0.072)	(0.080)	(0.083)	(0.083)	(0.077)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.002	0.004	0.016	0.018	-0.015
		(0.062)	(0.062)	(0.060)	(0.060)	(0.060)
Black		0.147	0.152	0.163	0.174~	0.107
		(0.102)	(0.104)	(0.104)	(0.105)	(0.097)
Other		0.076	0.067	0.033	0.021	0.077
		(0.119)	(0.122)	(0.125)	(0.122)	(0.110)
Respondent Born in U.S. [No = OR]		0.087	0.081	0.075	0.064	0.077
		(0.076)	(0.078)	(0.080)	(0.080)	(0.070)
Respondent Lives with both Biological Parents [No = OR]		0.028	0.025	0.025	0.021	0.024
		(0.054)	(0.055)	(0.052)	(0.054)	(0.052)
Yearly Family Income		-0.022~	-0.021~	-0.020~	-0.017	-0.012
		(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Locus of Control			-0.040	-0.050~	-0.049~	-0.038
			(0.028)	(0.027)	(0.027)	(0.025)
Mathematics Test Score			0.002	-0.000	0.000	-0.001
			(0.003)	(0.003)	(0.003)	(0.003)

Table 20 [cont].

Respondent Completed Advanced Mathematics [No = OR]				-0.054	-0.050	-0.040
				(0.038)	(0.037)	(0.038)
Respondent Completed AP English [No = OR]				-0.001	-0.020	0.005
				(0.058)	(0.056)	(0.055)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.009	0.019	0.013
				(0.037)	(0.037)	(0.035)
Respondent Completed Advanced Science [No = OR]				0.034	0.040	0.049
				(0.052)	(0.051)	(0.048)
Cumulative Academic GPA				0.072~	0.070~	0.066~
				(0.039)	(0.038)	(0.036)
High School Region [NE = OR]						
North Central					-0.051	-0.031
					(0.045)	(0.044)
South					0.003	0.054
					(0.058)	(0.055)
West					0.030	0.036
					(0.055)	(0.054)
High School Type [Public = OR]						
Catholic					-0.046	-0.034
					(0.044)	(0.043)
Private					-0.073	-0.070
					(0.065)	(0.069)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.051***
						(0.007)
Observations	670	670	670	670	670	670

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 21. AME from linear probability models predicting obesity in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.355***	-0.390***	-0.407***	-0.378***	-0.364***	-0.296**
	(0.069)	(0.090)	(0.089)	(0.084)	(0.081)	(0.108)
Certificate	0.029	0.029	0.008	0.007	0.021	-0.002
	(0.141)	(0.139)	(0.135)	(0.128)	(0.128)	(0.111)
Associate's Degree	-0.029	0.001	0.009	0.010	0.001	-0.053
	(0.127)	(0.131)	(0.130)	(0.126)	(0.125)	(0.128)
Non-selective Bachelor's Degree	-0.145*	-0.122~	-0.117~	-0.110	-0.102	-0.107~
	(0.064)	(0.066)	(0.069)	(0.068)	(0.068)	(0.064)
Moderately Selective Bachelor's Degree	-0.116	-0.094	-0.094	-0.058	-0.016	-0.045
	(0.089)	(0.088)	(0.090)	(0.092)	(0.096)	(0.086)
Very Selective Bachelor's Degree	-0.380***	-0.326***	-0.304***	-0.293***	-0.259**	-0.213*
	(0.052)	(0.062)	(0.075)	(0.085)	(0.087)	(0.085)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.077	-0.086	-0.088	-0.101	-0.073
		(0.077)	(0.076)	(0.079)	(0.080)	(0.072)
Black		0.156~	0.131	0.153~	0.163~	0.096
		(0.094)	(0.091)	(0.092)	(0.093)	(0.084)
Other		-0.079	-0.078	-0.044	-0.064	-0.024
		(0.088)	(0.087)	(0.086)	(0.087)	(0.067)
Respondent Born in U.S. [No = OR]		-0.059	-0.052	-0.055	-0.048	-0.041
		(0.110)	(0.106)	(0.107)	(0.109)	(0.098)
Respondent Lives with both Biological Parents [No = OR]		0.064	0.064	0.063	0.059	0.057
		(0.068)	(0.068)	(0.066)	(0.066)	(0.064)
Yearly Family Income		-0.026~	-0.025	-0.021	-0.024	-0.021
		(0.016)	(0.015)	(0.015)	(0.015)	(0.015)
Locus of Control			0.052~	0.052~	0.052~	0.037
			(0.030)	(0.030)	(0.029)	(0.028)
Mathematics Test Score			-0.004	-0.004	-0.003	-0.002
			(0.003)	(0.003)	(0.003)	(0.003)

Table 21 [cont].

Respondent Completed Advanced Mathematics [No = OR]				0.012	0.018	0.030
				(0.051)	(0.051)	(0.049)
Respondent Completed AP English [No = OR]				0.126	0.126	0.075
				(0.086)	(0.083)	(0.073)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.121*	-0.103~	-0.079
				(0.052)	(0.053)	(0.049)
Respondent Completed Advanced Science [No = OR]				-0.107*	-0.105*	-0.100*
				(0.054)	(0.051)	(0.049)
Cumulative Academic GPA				0.012	0.001	0.010
				(0.044)	(0.044)	(0.041)
High School Region [NE = OR]						
North Central					0.089	0.071
					(0.060)	(0.056)
South					0.103	0.089
					(0.067)	(0.061)
West					0.092	0.058
					(0.066)	(0.059)
High School Type [Public = OR]						
Catholic					0.086	0.076
					(0.056)	(0.052)
Private					-0.037	-0.028
					(0.091)	(0.089)
High School Enrollment Size					0.000	0.000
					(0.000)	(0.000)
Respondent's BMI						0.060***
						(0.008)
Observations	680	680	680	680	680	680

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Chapter 6: Discussion and Conclusion

In recent years, hundreds of empirical studies have documented an educational "gradient" in body mass—whereby quantitative, and sometimes qualitative, distinctions in educational attainment differentially predict adult risk factors for obesity (see Kim, Roesler, and Knesebeck 2017 for a review). This body of research illustrates that the link between bachelor's degree completion and obesity endures across population subgroups (Kim 2016), and net of disparities in social origins and other adult socioeconomic outcomes (Cutler and Lleras-Muney 2010). Improvements in the level and quality of students' educational attainment outcomes are often touted as a way to disrupt the 'precipitous growth of the American waistline' (Mechanic 2002; US Department of Health and Human Services 2014; WHO 2011); yet, the pathways linking education to obesity—and the role of gender in this process—remain poorly understood.

Traditional approaches to understanding the link between "education" and obesity overwhelmingly focus on static measures of academic progress, such as the highest level of schooling completed. In general, this body of research illustrates that people who earn a bachelor's degree are less likely to be obese than their 'otherwise similar' counterparts who fail to reach this educational milestone, although some evidence suggests that the returns to postsecondary completion vary across institutional context. Despite making these important contributions to what we currently know, by defining "education" as the outcome of a cumulative and highly-differentiated schooling process, the strategy of existing research does not consider the extent to which individual and institutional attributes interact in ways that may amplify or ameliorate educational disparities in body mass.

Developing a more comprehensive portrait of the link between educational stratification and obesity is critical so that policy makers and educational practitioners may more effectively identify and institutionalize strategies to alter students' trajectories in ways that have long-term implications for population trends in obesity. In particular, understanding the role of the schooling *process* for obesity differentials can show whether policy interventions should be aimed at increasing attainment, or whether it is more important to increase quality, change content, or otherwise improve the educational process at earlier stages for maximum returns to the midlife risk factors for obesity.

In general, my findings provide support for existing literature—by underscoring the risk of race/ethnicity (being black versus white), parental SES, and adolescent BMI for body mass differentials during midlife among women and men, they also challenge and expound upon much of existing research. In particular, my findings suggest that once differences key observed and unobserved academic factors are accounted for, "what about education matters for obesity" is quite different for women and men. Among women, we find evidence that completing advanced mathematics in high school and earning a bachelor's degree from a *selective* college or university are protective against obesity, whereas among men, it seems that earning good overall grades in high school and graduating from a non-selective college or university are all that matter. Thus, our results suggest that women must be in it to win it—leading the way in the race to the top of the academic hierarchy—to earn the protective effect(s) of education on obesity, whereas men need only finish said race, as they may be penalized if they try too hard.

The findings I present underscore the importance of using more refined measures of "education" to evaluate the relationship between education and body mass. Individuals who complete the same level of schooling do so through diverse pathways (that depend on pre-existing differences in socioeconomic background, race, gender, health, etc.). Nevertheless, traditional approaches to understanding the relationship between schooling and body mass focus on highest level of education completed as an ordinal outcome or years of schooling, both of which fail to capture these nuances.

As with any empirical study, I acknowledge the features of my analysis that limit my conclusions. One such example is that I do not have access to anthropomorphic measures of height and weight. Although some studies suggest good agreement between self-reported and measured weight and height, others show considerable reporting bias. The later body of literature suggest that self-reported BMI is underestimated for both men and women, on average, as a result of men over reporting their height and weight and women over reporting their height and under reporting their weight (Kuczmarski, Kuczmarski, and Najjar 2001; McAdams Van Dam, and Hu 2007; Rowland 1990; Villanueva 2001). Nevertheless, I am comforted by the fact that the bias resulting from this misreporting is minimized for both men and women when height and weight are observed at midlife (Merrill and Richardson 2009). Moreover, the associations I observe are measured separately by gender and independently of commonly discussed correlates of height and weight misreporting (e.g. race/ethnicity and socioeconomic status), lending credence to the general conclusions of this study.

Limitations aside, the results from this study suggest that, at least for women, measuring education in this way only tells part of the story of how education affects body mass differentials. Future research should evaluate the role of stratification in higher education for other health outcomes, such as physical health or depression. Moreover, the hierarchy of institutions of differing selectivity is only one axis of stratification that dissects the postsecondary system in the United States. Future research should also consider how other important dimensions of stratification within higher education impact health. That said, stratification in educational opportunities and experiences is not just limited to secondary and postsecondary education. Schooling experiences are stratified starting as early as preschool; therefore, future research should also consider how stratification in early formal schooling impacts the relationship between education and body mass index throughout the life course.

Appendix

Table 22. AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced	-0.128***	-0.110***	-0.106***	-0.102***	-0.092***
Mathematics [No = OR]	(0.023)	(0.024)	(0.025)	(0.025)	(0.023)
Respondent Completed AP English	0.005	0.013	0.017	0.013	0.006
[No = OR]	(0.038)	(0.036)	(0.037)	(0.036)	(0.033)
Respondent Completed 3+ Years	-0.063**	-0.022	-0.014	0.005	-0.004
Foreign Language [No = OR]	(0.023)	(0.026)	(0.026)	(0.027)	(0.025)
Respondent Completed Advanced	-0.032	-0.018	-0.014	-0.012	0.007
Science [No = OR]	(0.031)	(0.032)	(0.032)	(0.032)	(0.029)
Cumulative Academic GPA	-0.034*	-0.014	-0.001	-0.007	0.009
	(0.015)	(0.014)	(0.016)	(0.017)	(0.015)
Observed Confounders					
Race/ethnicity [White = OR]		0.058*	0.049~	0.058*	0.013
Hispanic		(0.027)	(0.027)	(0.028)	(0.025)
		0.168***	0.161***	0.166***	0.107***
Black		(0.032)	(0.033)	(0.034)	(0.031)
		-0.040	-0.043	-0.035	-0.027
Other		(0.041)	(0.042)	(0.044)	(0.044)
		0.083*	0.082*	0.071~	0.067
Respondent Born in U.S. [No = OR]		(0.041)	(0.041)	(0.043)	(0.046)
		0.015	0.013	0.011	0.011
Respondent Lives with both		(0.023)	(0.023)	(0.023)	(0.022)
Biological Parents [No = OR]		-0.055~	-0.052~	-0.049~	-0.043~
Respondent is First Generation		(0.029)	(0.029)	(0.029)	(0.026)
College Student [No = OR]		-0.026***	-0.025***	-0.023***	-0.015**
Yearly Family Income		(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.012	-0.011	-0.011
			-0.011	(0.011)	(0.010)
Mathematics Test Score			-0.001	-0.001	-0.001
			(0.001)	(0.001)	(0.001)

Table 22 [cont].

High School Region [Northeast = OR]					
North Central				0.036	0.033
				(0.027)	(0.025)
South				0.045	0.064*
				(0.028)	(0.026)
West				0.008	0.019
				(0.029)	(0.027)
High School Type [Public = OR]					
Catholic				-0.045~	-0.030
				(0.025)	(0.024)
Private				-0.062	-0.043
				(0.054)	(0.047)
High School Enrollment Size				-0.000*	-0.000
				(0.000)	(0.000)
Respondent's BMI					0.056***
					(0.003)
Observations	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 23. AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced	0.007	0.016	0.009	0.013	0.013
Mathematics [No = OR]	(0.028)	(0.028)	(0.028)	(0.028)	(0.026)
Respondent Completed AP English	0.030	0.034	0.032	0.039	0.016
[No = OR]	(0.049)	(0.048)	(0.048)	(0.048)	(0.041)
Respondent Completed 3+ Years	-0.081*	-0.065~	-0.069*	-0.043	-0.024
Foreign Language [No = OR]	(0.033)	(0.035)	(0.034)	(0.035)	(0.032)
Respondent Completed Advanced	-0.065*	-0.063*	-0.065*	-0.062~	-0.053~
Science [No = OR]	(0.032)	(0.031)	(0.032)	(0.032)	(0.030)
Cumulative Academic GPA	-0.031*	-0.026~	-0.035~	-0.040*	-0.026
	(0.016)	(0.016)	(0.018)	(0.019)	(0.018)
Observed Confounders					
Race/ethnicity [White = OR]		-0.024	-0.018	-0.016	-0.028
Hispanic		(0.029)	(0.029)	(0.030)	(0.030)
		0.098**	0.106**	0.112**	0.088*
Black		(0.037)	(0.038)	(0.038)	(0.037)
		-0.020	-0.015	-0.011	-0.013
Other		(0.062)	(0.062)	(0.063)	(0.057)
		0.035	0.034	0.028	0.004
Respondent Born in U.S. [No = OR]		(0.064)	(0.064)	(0.065)	(0.065)
		0.033	0.034	0.029	0.036
Respondent Lives with both		(0.024)	(0.024)	(0.024)	(0.023)
Biological Parents [No = OR]		-0.011	-0.013	-0.008	-0.007
Respondent is First Generation		(0.031)	(0.031)	(0.031)	(0.027)
College Student [No = OR]		-0.016**	-0.017**	-0.015**	-0.010~
Yearly Family Income		(0.006)	(0.006)	(0.006)	(0.005)
Locus of Control			0.005	0.006	-0.002
			(0.013)	(0.012)	(0.012)
Mathematics Test Score			0.001	0.001	0.001
			(0.001)	(0.001)	(0.001)

Table 23 [cont].					
High School Region [Northeast = OR]					
North Central				0.062*	0.048~
				(0.027)	(0.026)
South				0.031	0.030
				(0.031)	(0.029)
West				0.022	0.020
				(0.033)	(0.032)
High School Type [Public = OR]					
Catholic				-0.022	-0.016
				(0.031)	(0.027)
Private				-0.178***	-0.156***
				(0.037)	(0.037)
High School Enrollment Size				-0.000	-0.000
				(0.000)	(0.000)
Respondent's BMI					0.058***
					(0.004)
Observations	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 24. AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced	-1.187***	-0.857*	-0.808*	-0.750*	-0.638*
Mathematics [No = OR]	(0.349)	(0.346)	(0.353)	(0.351)	(0.321)
Respondent Completed AP English	-0.056	0.028	0.062	0.005	-0.120
[No = OR]	(0.531)	(0.502)	(0.503)	(0.492)	(0.411)
Respondent Completed 3+ Years	-1.067***	-0.423	-0.353	-0.030	-0.192
Foreign Language [No = OR]	(0.313)	(0.320)	(0.322)	(0.339)	(0.296)
Respondent Completed Advanced	-0.373	-0.165	-0.131	-0.120	0.104
Science [No = OR]	(0.347)	(0.346)	(0.348)	(0.342)	(0.300)
Cumulative Academic GPA	-0.779**	-0.417~	-0.294	-0.383	-0.079
	(0.246)	(0.223)	(0.251)	(0.255)	(0.212)
Observed Confounders					
Race/ethnicity [White = OR]		1.276**	1.196**	1.339**	0.436
Hispanic		(0.441)	(0.450)	(0.464)	-0.411
		3.647***	3.589***	3.585***	2.537***
Black		(0.546)	(0.570)	(0.571)	(0.471)
		-0.892	-0.925	-0.755	-0.414
Other		(0.599)	(0.603)	(0.620)	(0.665)
		0.921	0.916	0.761	0.805
Respondent Born in U.S. [No = OR]		(0.720)	(0.722)	(0.718)	(0.688)
		0.290	0.273	0.256	0.306
Respondent Lives with both		(0.389)	(0.386)	(0.385)	(0.327)
Biological Parents [No = OR]		-0.532	-0.498	-0.398	-0.375
Respondent is First Generation		(0.346)	(0.348)	(0.351)	(0.308)
College Student [No = OR]		-0.417***	-0.404***	-0.367***	-0.239***
Yearly Family Income		(0.079)	(0.079)	(0.080)	(0.069)
Locus of Control			-0.135	-0.116	-0.110
			(0.178)	(0.177)	(0.151)
Mathematics Test Score			-0.014	-0.009	-0.006
			(0.021)	(0.022)	(0.019)

Table 24 [cont].					
High School Region [Northeast = OR]					
North Central				0.472	0.434
				(0.360)	(0.332)
South				0.731~	1.065**
				(0.412)	(0.370)
West				-0.075	0.076
				(0.419)	(0.382)
High School Type [Public = OR]					
Catholic				-0.968**	-0.712*
				(0.329)	(0.307)
Private				-1.522*	-1.201*
				(0.670)	(0.571)
High School Enrollment Size				-0.000*	-0.000
				(0.000)	(0.000)
Respondent's BMI					1.060***
					-0.054
Observations	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 25. AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence

	(1)	(2)	(3)	(4)	(5)
Academic Course-taking and Performance in High School					
Respondent Completed Advanced	0.070	0.212	0.210	0.248	0.203
Mathematics [No = OR]	(0.289)	(0.284)	(0.293)	(0.289)	(0.256)
Respondent Completed AP English	0.519	0.593	0.596	0.680	0.276
[No = OR]	(0.591)	(0.584)	(0.586)	(0.578)	(0.475)
Respondent Completed 3+ Years	-0.950**	-0.668*	-0.666*	-0.369	-0.071
Foreign Language [No = OR]	(0.337)	(0.335)	(0.333)	(0.324)	(0.282)
Respondent Completed Advanced	-0.472	-0.429	-0.430	-0.386	-0.294
Science [No = OR]	(0.290)	(0.289)	(0.287)	(0.283)	(0.264)
Cumulative Academic GPA	-0.634***	-0.528**	-0.525**	-0.581**	-0.427*
	(0.174)	(0.173)	(0.200)	(0.201)	(0.191)
Observed Confounders					
Race/ethnicity [White = OR]		0.146	0.144	0.179	0.022
Hispanic		(0.315)	(0.321)	(0.322)	(0.332)
		1.407**	1.411**	1.492**	1.187**
Black		(0.483)	(0.484)	(0.490)	(0.449)
		0.316	0.311	0.451	0.517
Other		(0.554)	(0.556)	(0.566)	(0.548)
		0.812	0.808	0.685	0.382
Respondent Born in U.S. [No = OR]		(0.537)	(0.538)	(0.537)	(0.560)
		0.454	0.451	0.376	0.519*
Respondent Lives with both		(0.301)	(0.301)	(0.295)	(0.260)
Biological Parents [No = OR]		-0.157	-0.157	-0.097	-0.087
Respondent is First Generation		(0.278)	(0.280)	(0.278)	(0.241)
College Student [No = OR]		-0.272***	-0.271***	-0.251***	-0.185***
Yearly Family Income		(0.059)	(0.058)	(0.058)	(0.053)
Locus of Control			-0.032	-0.012	-0.125
			(0.138)	(0.138)	(0.125)
Mathematics Test Score			0.001	0.002	0.003
			(0.015)	(0.015)	(0.014)

Table 25 [cont].					
High School Region [Northeast = OR]					
North Central				0.895**	0.701**
				(0.278)	(0.259)
South				0.489	0.447
				(0.317)	(0.299)
West				0.091	0.035
				(0.329)	(0.327)
High School Type [Public = OR]					
Catholic				-0.201	-0.216
				(0.298)	(0.257)
Private				-1.634***	-1.394***
				(0.459)	(0.420)
High School Enrollment Size				-0.000	-0.000
				(0.000)	(0.000)
Respondent's BMI					0.765***
					(0.045)
Observations	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 26. AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	-0.092***	-0.082***
	(0.023)	(0.023)
Respondent Completed AP English [No = OR]	0.006	0.010
	(0.033)	(0.034)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.004	0.008
	(0.025)	(0.025)
Respondent Completed Advanced Science [No = OR]	0.007	0.010
	(0.029)	(0.028)
Cumulative Academic GPA	0.009	0.018
	(0.015)	(0.016)
Observed Confounders		
Locus of Control	-0.011	-0.009
	(0.010)	(0.010)
Mathematics Test Score	-0.001	0.000
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	0.013	0.010
	(0.025)	(0.025)
Black	0.107***	0.109***
	(0.031)	(0.031)
Other	-0.027	-0.023
	(0.044)	(0.045)
Respondent Born in U.S. [No = OR]	0.067	0.065
	(0.046)	(0.046)
Respondent Lives with both Biological Parents [No = OR]	0.011	0.015
	(0.022)	(0.022)
Respondent is First Generation College Student [No = OR]	-0.043~	-0.030
	(0.026)	(0.026)
Yearly Family Income	-0.015**	-0.014*
	(0.006)	(0.005)

Table 26 [cont].		
High School Region [Northeast = OR]		
North Central	0.033	0.031
	(0.025)	(0.025)
South	0.064*	0.061*
	(0.026)	(0.026)
West	0.019	0.015
	(0.027)	(0.027)
High School Type [Public = OR]		
Catholic	-0.030	-0.024
	(0.024)	(0.025)
Private	-0.043	-0.032
	(0.047)	(0.048)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	0.056***	0.055***
	(0.003)	(0.003)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		0.004
		(0.039)
Certificate		-0.077
		(0.054)
Associate's Degree		-0.034
		(0.048)
Bachelor's Degree		-0.086~
		(0.044)
Observations	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 27. AME from logistic models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	0.013	0.026
	(0.026)	(0.026)
Respondent Completed AP English [No = OR]	0.016	0.021
	(0.041)	(0.041)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.024	-0.013
	(0.032)	(0.033)
Respondent Completed Advanced Science [No = OR]	-0.053~	-0.047
	(0.030)	(0.031)
Cumulative Academic GPA	-0.026	-0.012
	(0.018)	(0.019)
Observed Confounders		
Locus of Control	-0.002	-0.001
	(0.012)	(0.012)
Mathematics Test Score	0.001	0.002
	(0.001)	(0.001)
Race/ethnicity [White = OR]		
Hispanic	-0.028	-0.027
	(0.030)	(0.030)
Black	0.088*	0.090*
	(0.037)	(0.037)
Other	-0.013	-0.009
	(0.057)	(0.056)
Respondent Born in U.S. [No = OR]	0.004	0.005
	(0.065)	(0.064)
Respondent Lives with both Biological Parents [No = OR]	0.036	0.035
	(0.023)	(0.023)
Respondent is First Generation College Student [No = OR]	-0.007	0.004
	(0.027)	(0.027)
Yearly Family Income	-0.010~	-0.009~
	(0.005)	(0.005)

Table 27 [cont].		
High School Region [Northeast = OR]		
North Central	0.048~	0.050*
	(0.026)	(0.025)
South	0.030	0.030
	(0.029)	(0.029)
West	0.020	0.016
	(0.032)	(0.032)
High School Type [Public = OR]		
Catholic	-0.016	-0.009
	(0.027)	(0.028)
Private	-0.156***	-0.153***
	(0.037)	(0.038)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	0.058***	0.057***
	(0.004)	(0.004)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		0.045
		(0.041)
Certificate		0.095~
		(0.054)
Associate's Degree		0.021
		(0.056)
Bachelor's Degree		-0.035
		(0.046)
Observations	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 28. AME from linear probability models predicting BMI in midlife as a function of academic course-taking and performance in high school among women, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	-0.638*	-0.533~
	(0.321)	(0.324)
Respondent Completed AP English [No = OR]	-0.120	-0.051
	(0.411)	(0.412)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.192	-0.041
	(0.296)	-0.299
Respondent Completed Advanced Science [No = OR]	0.104	0.131
	(0.300)	(0.298)
Cumulative Academic GPA	-0.079	0.084
	(0.212)	(0.214)
Observed Confounders		
Locus of Control	-0.110	-0.071
	(0.151)	(0.149)
Mathematics Test Score	-0.006	0.006
	(0.019)	(0.019)
Race/ethnicity [White = OR]		
Hispanic	0.436	0.444
	(0.411)	(0.406)
Black	2.537***	2.587***
	(0.471)	(0.473)
Other	-0.414	-0.382
	(0.665)	(0.648)
Respondent Born in U.S. [No = OR]	0.805	0.789
	(0.688)	(0.678)
Respondent Lives with both Biological Parents [No = OR]	0.306	0.406
	(0.327)	(0.321)
Respondent is First Generation College Student [No = OR]	-0.375	-0.226
	(0.308)	(0.303)
Yearly Family Income	-0.239***	-0.215**
	(0.069)	(0.070)

Table 28 [cont].		
High School Region [Northeast = OR]		
North Central	0.434	0.415
	(0.332)	(0.329)
South	1.065**	1.019**
	(0.370)	(0.365)
West	0.076	0.022
	(0.382)	(0.379)
High School Type [Public = OR]		
Catholic	-0.712*	-0.624*
	(0.307)	(0.302)
Private	-1.201*	-1.033~
	(0.571)	(0.581)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	1.060***	1.058***
	(0.054)	(0.053)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		-0.864
		(0.780)
Certificate		-1.571~
		(0.933)
Associate's Degree		-1.444~
		(0.846)
Bachelor's Degree		-1.916*
		(0.803)
Observations	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 29. AME from linear probability models predicting obesity in midlife as a function of academic course-taking and performance in high school among men, net of key demographic and structural factors observed during adolescence and educational attainment

	(1)	(2)
Academic Course-taking and Performance in High School		
Respondent Completed Advanced Mathematics [No = OR]	0.203	0.330
	(0.256)	(0.262)
Respondent Completed AP English [No = OR]	0.276	0.319
	(0.475)	(0.473)
Respondent Completed 3+ Years Foreign Language [No = OR]	-0.071	0.068
	(0.282)	(0.282)
Respondent Completed Advanced Science [No = OR]	-0.294	-0.248
	(0.264)	(0.264)
Cumulative Academic GPA	-0.427*	-0.331~
	(0.191)	(0.194)
Observed Confounders		
Locus of Control	-0.125	-0.124
	(0.125)	(0.124)
Mathematics Test Score	0.003	0.006
	(0.014)	(0.013)
Race/ethnicity [White = OR]		
Hispanic	0.022	0.037
	(0.332)	(0.332)
Black	1.187**	1.230**
	(0.449)	(0.451)
Other	0.517	0.609
	(0.548)	(0.542)
Respondent Born in U.S. [No = OR]	0.382	0.417
	(0.560)	(0.546)
Respondent Lives with both Biological Parents [No = OR]	0.519*	0.500~
	(0.260)	(0.258)
Respondent is First Generation College Student [No = OR]	-0.087	0.001
	(0.241)	(0.241)
Yearly Family Income	-0.185***	-0.179***
	(0.053)	(0.053)

Table 29 [cont].		
High School Region [Northeast = OR]		
North Central	0.701**	0.717**
	(0.259)	(0.257)
South	0.447	0.463
	(0.299)	(0.300)
West	0.035	0.007
	(0.327)	(0.326)
High School Type [Public = OR]		
Catholic	-0.216	-0.165
	(0.257)	(0.257)
Private	-1.394***	-1.332**
	(0.420)	(0.409)
High School Enrollment Size	-0.000	-0.000
	(0.000)	(0.000)
Respondent's BMI	0.765***	0.761***
	(0.045)	(0.045)
Educational Attainment Level [High School Diploma = OR]		
Less than High School Diploma		1.013*
		(0.484)
Certificate		1.855**
		(0.658)
Associate's Degree		0.972~
		(0.572)
Bachelor's Degree		0.268
		(0.553)
Observations	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 30. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.013	-0.003	-0.012	-0.007	-0.002	-0.003
	(0.046)	(0.042)	(0.042)	(0.042)	(0.042)	(0.039)
Certificate	-0.077~	-0.071~	-0.068~	-0.070~	-0.073~	-0.081*
	(0.041)	(0.040)	(0.040)	(0.039)	(0.039)	(0.037)
Associate's Degree	-0.076*	-0.044	-0.040	-0.040	-0.036	-0.039
	(0.035)	(0.036)	(0.036)	(0.035)	(0.036)	(0.031)
Non-selective Bachelor's Degree	-0.171***	-0.122***	-0.112***	-0.105***	-0.104***	-0.089***
	(0.023)	(0.025)	(0.027)	(0.028)	(0.028)	(0.025)
Moderately Selective Bachelor's Degree	-0.202***	-0.127**	-0.114*	-0.100*	-0.091~	-0.074~
	(0.035)	(0.043)	(0.046)	(0.049)	(0.050)	(0.044)
Very Selective Bachelor's Degree	-0.285***	-0.234***	-0.222***	-0.211***	-0.202***	-0.196***
	(0.031)	(0.040)	(0.044)	(0.048)	(0.049)	(0.044)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.050~	0.043	0.045~	0.055*	0.011
		(0.027)	(0.027)	(0.027)	(0.028)	(0.025)
Black		0.169***	0.162***	0.163***	0.169***	0.109***
		(0.031)	(0.032)	(0.032)	(0.033)	(0.031)
Other		-0.035	-0.037	-0.039	-0.031	-0.021
		(0.042)	(0.043)	(0.042)	(0.045)	(0.045)
Respondent Born in U.S. [No = OR]		0.079~	0.079~	0.080~	0.068	0.065
		(0.041)	(0.041)	(0.042)	(0.043)	(0.047)
Respondent Lives with both Biological Parents [No = OR]		0.018	0.017	0.018	0.015	0.015
		(0.023)	(0.023)	(0.023)	(0.023)	(0.022)
Respondent is First Generation College Student [No = OR]		-0.038	-0.036	-0.033	-0.031	-0.029
		(0.030)	(0.030)	(0.030)	(0.030)	(0.026)
Yearly Family Income		-0.024***	-0.023***	-0.023***	-0.021***	-0.014*
		(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Locus of Control			-0.009	-0.010	-0.009	-0.010
			(0.011)	(0.011)	(0.011)	(0.010)
Mathematics Test Score			-0.001	-0.001	-0.000	0.000
			(0.001)	(0.001)	(0.001)	(0.001)

Table 30 [cont].						
Respondent Completed Advanced				-0.092***	-0.089***	-0.082***
Mathematics [No = OR]				(0.025)	(0.025)	(0.023)
Respondent Completed AP English				0.025	0.022	0.011
[No = OR]				(0.037)	(0.037)	(0.034)
Respondent Completed 3+ Years				0.007	0.023	0.010
Foreign Language [No = OR]				(0.027)	(0.028)	(0.025)
Respondent Completed Advanced				-0.008	-0.007	0.012
Science [No = OR]				(0.032)	(0.032)	(0.028)
Cumulative Academic GPA				0.010	0.004	0.018
				(0.017)	(0.017)	(0.016)
High School Region [NE = OR]						
North Central					0.033	0.029
					(0.027)	(0.025)
South					0.041	0.060*
					(0.028)	(0.026)
West					0.005	0.015
					(0.029)	(0.027)
High School Type [Public = OR]						
Catholic					-0.038	-0.025
					(0.026)	(0.025)
Private					-0.043	-0.027
					(0.056)	(0.049)
High School Enrollment Size					-0.000*	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.055***
						(0.003)
Observations	4,490	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 31. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.070~	-0.072~	-0.066	-0.071~	-0.072~	-0.045
	(0.038)	(0.039)	(0.040)	(0.040)	(0.039)	(0.041)
Certificate	0.032	0.043	0.042	0.043	0.044	0.050
	(0.054)	(0.053)	(0.053)	(0.053)	(0.052)	(0.045)
Associate's Degree	-0.059	-0.048	-0.052	-0.050	-0.054	-0.024
	(0.045)	(0.045)	(0.045)	(0.045)	(0.044)	(0.042)
Non-selective Bachelor's Degree	-0.117***	-0.104***	-0.115***	-0.102***	-0.103***	-0.082**
	(0.024)	(0.025)	(0.026)	(0.027)	(0.027)	(0.026)
Moderately Selective Bachelor's Degree	-0.112*	-0.088~	-0.104*	-0.076	-0.059	-0.055
	(0.045)	(0.047)	(0.047)	(0.053)	(0.054)	(0.048)
Very Selective Bachelor's Degree	-0.242***	-0.218***	-0.234***	-0.210**	-0.177*	-0.142*
	(0.056)	(0.061)	(0.059)	(0.067)	(0.073)	(0.065)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.024	-0.016	-0.017	-0.016	-0.028
		(0.028)	(0.029)	(0.029)	(0.029)	(0.029)
Black		0.098**	0.108**	0.110**	0.114**	0.091*
		(0.037)	(0.038)	(0.038)	(0.039)	(0.037)
Other		-0.015	-0.010	-0.009	-0.005	-0.009
		(0.061)	(0.061)	(0.061)	(0.062)	(0.056)
Respondent Born in U.S. [No = OR]		0.041	0.041	0.034	0.029	0.005
		(0.062)	(0.063)	(0.063)	(0.064)	(0.064)
Respondent Lives with both Biological Parents [No = OR]		0.031	0.031	0.032	0.028	0.035
		(0.024)	(0.024)	(0.024)	(0.024)	(0.023)
Respondent is First Generation College Student [No = OR]		0.003	0.001	0.001	0.004	0.003
		(0.031)	(0.031)	(0.031)	(0.031)	(0.027)
Yearly Family Income		-0.015**	-0.016**	-0.015**	-0.015**	-0.009~
		(0.006)	(0.006)	(0.006)	(0.006)	(0.005)
Locus of Control			0.003	0.005	0.007	-0.002
			(0.012)	(0.012)	(0.012)	(0.012)
Mathematics Test Score			0.001	0.002	0.002	0.002
			(0.001)	(0.001)	(0.001)	(0.001)

Table 31 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				0.026	0.030	0.026
				(0.029)	(0.029)	(0.026)
Respondent Completed AP English [No = OR]				0.041	0.045	0.021
				(0.048)	(0.048)	(0.041)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.048	-0.028	-0.011
				(0.036)	(0.037)	(0.034)
Respondent Completed Advanced Science [No = OR]				-0.057~	-0.055~	-0.048
				(0.032)	(0.032)	(0.031)
Cumulative Academic GPA				-0.020	-0.025	-0.013
				(0.019)	(0.019)	(0.019)
High School Region [NE = OR]						
North Central					0.065*	0.050*
					(0.027)	(0.025)
South					0.033	0.031
					(0.031)	(0.029)
West					0.022	0.019
					(0.033)	(0.032)
High School Type [Public = OR]						
Catholic					-0.013	-0.009
					(0.031)	(0.027)
Private					-0.170***	-0.151***
					(0.037)	(0.038)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.057***
						(0.004)
Observations	4,040	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 32. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	1.222	0.999	0.922	0.912	0.958	0.884
	(1.043)	(0.969)	(0.975)	(0.959)	(0.950)	(0.781)
Certificate	-0.581	-0.516	-0.498	-0.510	-0.556	-0.711
	(0.586)	(0.562)	(0.561)	(0.564)	(0.566)	(0.529)
Associate's Degree	-1.158*	-0.621	-0.589	-0.568	-0.515	-0.601
	(0.510)	(0.518)	(0.519)	(0.519)	(0.525)	(0.428)
Non-selective Bachelor's Degree	-2.311***	-1.444***	-1.349***	-1.233***	-1.188**	-0.974**
	(0.311)	(0.328)	(0.352)	(0.369)	(0.370)	(0.321)
Moderately Selective Bachelor's Degree	-3.562***	-2.145***	-2.005**	-1.810**	-1.609*	-1.446*
	(0.568)	(0.594)	(0.617)	(0.647)	(0.643)	(0.576)
Very Selective Bachelor's Degree	-4.254***	-2.883***	-2.709***	-2.489***	-2.179**	-2.255***
	(0.577)	(0.621)	(0.669)	(0.698)	(0.714)	(0.610)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		1.249**	1.187**	1.211**	1.359**	0.462
		(0.439)	(0.448)	(0.448)	(0.460)	(0.406)
Black		3.681***	3.632***	3.644***	3.661***	2.615***
		(0.554)	(0.575)	(0.574)	(0.575)	(0.474)
Other		-0.840	-0.861	-0.858	-0.684	-0.347
		(0.569)	(0.575)	(0.580)	(0.603)	(0.644)
Respondent Born in U.S. [No = OR]		0.900	0.896	0.900	0.740	0.787
		(0.699)	(0.703)	(0.707)	(0.704)	(0.677)
Respondent Lives with both Biological Parents [No = OR]		0.377	0.366	0.384	0.358	0.402
		(0.378)	(0.376)	(0.377)	(0.377)	(0.320)
Respondent is First Generation College Student [No = OR]		-0.284	-0.266	-0.241	-0.185	-0.193
		(0.344)	(0.345)	(0.345)	(0.347)	(0.303)
Yearly Family Income		-0.379***	-0.371***	-0.370***	-0.336***	-0.211**
		(0.079)	(0.079)	(0.079)	(0.080)	(0.069)
Locus of Control			-0.095	-0.088	-0.070	-0.070
			(0.174)	(0.175)	(0.174)	(0.149)
Mathematics Test Score			-0.008	0.002	0.005	0.007
			(0.019)	(0.022)	(0.022)	(0.019)

Table 32 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				-0.626~	-0.591~	-0.511
				(0.353)	(0.352)	(0.321)
Respondent Completed AP English [No = OR]				0.184	0.121	-0.016
				(0.504)	(0.495)	(0.413)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.052	0.208	0.020
				(0.329)	(0.344)	(0.303)
Respondent Completed Advanced Science [No = OR]				-0.066	-0.060	0.168
				(0.345)	(0.339)	(0.298)
Cumulative Academic GPA				-0.093	-0.185	0.091
				(0.242)	(0.247)	(0.213)
High School Region [NE = OR]						
North Central					0.435	0.393
					(0.357)	(0.329)
South					0.651	0.974**
					(0.409)	(0.366)
West					-0.133	0.017
					(0.418)	(0.379)
High School Type [Public = OR]						
Catholic					-0.876**	-0.643*
					(0.322)	(0.301)
Private					-1.246~	-0.955
					(0.675)	(0.586)
High School Enrollment Size					-0.000*	-0.000
					(0.000)	(0.000)
Respondent's BMI						1.059***
						(0.054)
Observations	4,490	4,490	4,490	4,490	4,490	4,490

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 33. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-1.103*	-1.217*	-1.248*	-1.372**	-1.375**	-1.017*
	(0.479)	(0.480)	(0.488)	(0.495)	(0.491)	(0.484)
Certificate	0.590	0.786	0.797	0.796	0.799	0.844~
	(0.674)	(0.670)	(0.670)	(0.673)	(0.650)	(0.494)
Associate's Degree	-0.624	-0.408	-0.387	-0.350	-0.390	-0.040
	(0.434)	(0.435)	(0.429)	(0.423)	(0.415)	(0.379)
Non-selective Bachelor's Degree	-1.494***	-1.188***	-1.132***	-0.950**	-0.985**	-0.776**
	(0.274)	(0.275)	(0.293)	(0.304)	(0.305)	(0.284)
Moderately Selective Bachelor's Degree	-1.573***	-1.079*	-0.998*	-0.653	-0.467	-0.462
	(0.416)	(0.421)	(0.449)	(0.487)	(0.480)	(0.447)
Very Selective Bachelor's Degree	-3.033***	-2.335***	-2.237**	-1.868*	-1.326~	-0.966
	(0.681)	(0.650)	(0.691)	(0.768)	(0.720)	(0.601)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.210	0.174	0.150	0.171	0.028
		(0.312)	(0.319)	(0.320)	(0.321)	(0.332)
Black		1.481**	1.450**	1.465**	1.525**	1.233**
		(0.489)	(0.490)	(0.486)	(0.492)	(0.451)
Other		0.424	0.399	0.437	0.555	0.603
		(0.556)	(0.556)	(0.552)	(0.560)	(0.542)
Respondent Born in U.S. [No = OR]		0.886~	0.883~	0.833	0.717	0.421
		(0.527)	(0.527)	(0.527)	(0.526)	(0.546)
Respondent Lives with both Biological Parents [No = OR]		0.410	0.406	0.412	0.340	0.496~
		(0.298)	(0.298)	(0.298)	(0.291)	(0.258)
Respondent is First Generation College Student [No = OR]		-0.041	-0.031	-0.029	0.011	-0.004
		(0.286)	(0.286)	(0.279)	(0.277)	(0.243)
Yearly Family Income		-0.260***	-0.256***	-0.261***	-0.245***	-0.180***
		(0.058)	(0.058)	(0.058)	(0.058)	(0.053)
Locus of Control			-0.067	-0.033	-0.011	-0.125
			(0.134)	(0.137)	(0.137)	(0.124)
Mathematics Test Score			-0.003	0.006	0.006	0.006
			(0.014)	(0.015)	(0.015)	(0.013)

Table 33 [cont].

Respondent Completed Advanced Mathematics [No = OR]				0.368	0.404	0.333
				(0.300)	(0.295)	(0.262)
Respondent Completed AP English [No = OR]				0.670	0.734	0.323
				(0.582)	(0.580)	(0.478)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.455	-0.218	0.060
				(0.323)	(0.322)	(0.285)
Respondent Completed Advanced Science [No = OR]				-0.371	-0.331	-0.253
				(0.287)	(0.282)	(0.264)
Cumulative Academic GPA				-0.419*	-0.482*	-0.337~
				(0.202)	(0.204)	(0.195)
High School Region [NE = OR]						
North Central					0.942***	0.729**
					(0.277)	(0.258)
South					0.534~	0.481
					(0.321)	(0.301)
West					0.108	0.033
					(0.329)	(0.331)
High School Type [Public = OR]						
Catholic					-0.129	-0.158
					(0.293)	(0.256)
Private					-1.559***	-1.334**
					(0.440)	(0.415)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.761***
						(0.045)
Observations	4,040	4,040	4,040	4,040	4,040	4,040

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 34. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among white women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-0.041	-0.240	-0.288	-0.238	-0.211	0.053
	(0.943)	(0.939)	(0.950)	(0.951)	(0.937)	(0.857)
Certificate	-0.812	-0.829	-0.815	-0.849	-0.894	-1.157~
	(0.622)	(0.612)	(0.612)	(0.618)	(0.620)	(0.600)
Associate's Degree	-0.661	-0.546	-0.523	-0.506	-0.453	-0.580
	(0.574)	(0.587)	(0.589)	(0.587)	(0.596)	(0.482)
Non-selective Bachelor's Degree	-1.858***	-1.517***	-1.453***	-1.370***	-1.333***	-1.119**
	(0.347)	(0.363)	(0.383)	(0.397)	(0.396)	(0.345)
Moderately Selective Bachelor's Degree	-2.799***	-2.131***	-2.044**	-1.857**	-1.672*	-1.569*
	(0.604)	(0.639)	(0.656)	(0.686)	(0.679)	(0.617)
Very Selective Bachelor's Degree	-3.730***	-2.932***	-2.813***	-2.619***	-2.326**	-2.416***
	(0.624)	(0.673)	(0.711)	(0.742)	(0.760)	(0.690)
Observed Confounders						
Respondent Born in U.S. [No = OR]		1.706~	1.706~	1.718~	1.615~	1.281
		(0.926)	(0.919)	(0.923)	(0.923)	(0.970)
Respondent Lives with both Biological Parents [No = OR]		0.205	0.201	0.203	0.197	0.228
		(0.406)	(0.405)	(0.405)	(0.407)	(0.371)
Respondent is First Generation College Student [No = OR]		-0.352	-0.342	-0.314	-0.250	-0.255
		(0.367)	(0.370)	(0.368)	(0.370)	(0.324)
Yearly Family Income		-0.322***	-0.318***	-0.312***	-0.282**	-0.152~
		(0.089)	(0.089)	(0.089)	(0.091)	(0.080)
Locus of Control			-0.025	-0.032	-0.015	-0.038
			(0.189)	(0.193)	(0.191)	(0.165)
Mathematics Test Score			-0.007	-0.002	0.002	0.007
			(0.021)	(0.023)	(0.023)	(0.021)
Respondent Completed Advanced Mathematics [No = OR]				-0.729~	-0.691~	-0.645~
				(0.380)	(0.378)	(0.339)
Respondent Completed AP English [No = OR]				-0.121	-0.165	-0.281
				(0.541)	(0.533)	(0.433)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.049	0.234	0.075
				(0.359)	(0.377)	(0.331)

Table 34 [cont].

Respondent Completed Advanced Science [No = OR]				0.021	0.038	0.133
				(0.375)	(0.369)	(0.331)
Cumulative Academic GPA				0.089	-0.020	0.200
				(0.268)	(0.270)	(0.250)
High School Region [NE = OR]						
North Central					0.443	0.414
					(0.386)	(0.360)
South					0.702	1.125**
					(0.458)	(0.426)
West					-0.206	-0.090
					(0.485)	(0.451)
High School Type [Public = OR]						
Catholic					-0.993**	-0.695*
					(0.368)	(0.327)
Private					-1.089	-0.853
					(0.738)	(0.635)
High School Enrollment Size					-0.000~	-0.000
					(0.000)	(0.000)
Respondent's BMI						1.054***
						(0.060)
Observations	2,860	2,860	2,860	2,860	2,860	2,860

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 35. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among white men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-1.408*	-1.475*	-1.497*	-1.653*	-1.639*	-1.097~
	(0.624)	(0.627)	(0.634)	(0.644)	(0.638)	(0.588)
Certificate	1.007	1.019	1.021	1.008	1.053	0.992~
	(0.759)	(0.739)	(0.737)	(0.740)	(0.716)	(0.522)
Associate's Degree	-0.206	-0.109	-0.098	-0.069	-0.109	0.307
	(0.486)	(0.489)	(0.482)	(0.473)	(0.461)	(0.406)
Non-selective Bachelor's Degree	-1.203***	-1.022***	-0.989**	-0.790*	-0.837*	-0.644*
	(0.298)	(0.301)	(0.321)	(0.337)	(0.337)	(0.306)
Moderately Selective Bachelor's Degree	-1.043*	-0.713	-0.663	-0.301	-0.077	-0.090
	(0.488)	(0.487)	(0.519)	(0.557)	(0.541)	(0.495)
Very Selective Bachelor's Degree	-2.921***	-2.336***	-2.274**	-1.910*	-1.155	-0.783
	(0.733)	(0.709)	(0.752)	(0.830)	(0.787)	(0.647)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.705	0.711	0.616	0.567	0.554
		(0.859)	(0.858)	(0.860)	(0.873)	(0.749)
Respondent Lives with both Biological Parents [No = OR]		0.537	0.536	0.555~	0.433	0.553*
		(0.327)	(0.327)	(0.325)	(0.319)	(0.278)
Respondent is First Generation College Student [No = OR]		-0.073	-0.069	-0.071	-0.052	-0.040
		(0.317)	(0.317)	(0.307)	(0.303)	(0.264)
Yearly Family Income		-0.284***	-0.283***	-0.287***	-0.267***	-0.210***
		(0.063)	(0.063)	(0.064)	(0.064)	(0.058)
Locus of Control			-0.025	0.014	0.051	-0.081
			(0.148)	(0.151)	(0.151)	(0.140)
Mathematics Test Score			-0.003	0.007	0.008	0.005
			(0.016)	(0.018)	(0.017)	(0.015)
Respondent Completed Advanced Mathematics [No = OR]				0.411	0.442	0.416
				(0.345)	(0.338)	(0.297)
Respondent Completed AP English [No = OR]				0.654	0.712	0.316
				(0.657)	(0.651)	(0.539)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.503	-0.233	0.086
				(0.376)	(0.369)	(0.324)

Table 35 [cont].						
Respondent Completed Advanced Science [No = OR]				-0.328	-0.284	-0.213
				(0.316)	(0.309)	(0.285)
Cumulative Academic GPA				-0.451~	-0.534*	-0.414~
				(0.240)	(0.243)	(0.221)
High School Region [NE = OR]						
North Central					0.926**	0.755**
					(0.297)	(0.275)
South					0.871*	0.770*
					(0.368)	(0.339)
West					-0.085	-0.092
					(0.358)	(0.353)
High School Type [Public = OR]						
Catholic					-0.103	-0.122
					(0.308)	(0.281)
Private					-1.627***	-1.303**
					(0.463)	(0.429)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.783***
						(0.047)
Observations	2,580	2,580	2,580	2,580	2,580	2,580

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 36. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among black women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	6.869~	6.661~	6.884~	6.795~	6.969*	4.801~
	(3.838)	(3.683)	(3.603)	(3.472)	(3.464)	(2.503)
Certificate	1.645	1.812	1.833	1.787	1.579	1.483
	(1.698)	(1.701)	(1.694)	(1.608)	(1.589)	(1.182)
Associate's Degree	0.623	0.611	0.666	0.875	0.641	0.903
	(2.547)	(2.659)	(2.700)	(2.683)	(2.603)	(2.114)
Non-selective Bachelor's Degree	-1.823~	-1.193	-1.316	-0.318	-0.110	0.697
	(1.030)	(1.055)	(1.190)	(1.346)	(1.344)	(1.276)
Moderately Selective Bachelor's Degree	-3.084**	-2.242~	-2.725~	-3.847*	-3.486~	0.247
	(1.169)	(1.254)	(1.602)	(1.858)	(2.085)	(2.264)
Very Selective Bachelor's Degree	-4.816	-3.669	-3.917	-0.524	0.169	0.300
	(3.109)	(3.484)	(3.779)	(4.012)	(3.680)	(2.028)
Observed Confounders						
Respondent Born in U.S. [No = OR]		-1.717	-1.761	-2.080	-2.481	-3.321
		(3.274)	(3.231)	(3.159)	(3.051)	(2.414)
Respondent Lives with both Biological Parents [No = OR]		0.197	0.193	0.289	0.306	0.584
		(1.266)	(1.273)	(1.248)	(1.236)	(1.031)
Respondent is First Generation College Student [No = OR]		0.027	0.012	0.631	0.432	0.187
		(1.620)	(1.601)	(1.525)	(1.599)	(1.281)
Yearly Family Income		-0.501~	-0.518*	-0.496~	-0.472~	-0.449*
		(0.262)	(0.256)	(0.259)	(0.259)	(0.224)
Locus of Control			0.369	0.466	0.499	0.237
			(0.548)	(0.519)	(0.512)	(0.446)
Mathematics Test Score			-0.005	0.030	0.039	0.024
			(0.081)	(0.095)	(0.098)	(0.074)
Respondent Completed Advanced Mathematics [No = OR]				-0.692	-0.839	-1.267
				(1.148)	(1.113)	(0.910)
Respondent Completed AP English [No = OR]				6.006***	5.633***	3.042~
				(1.774)	(1.711)	(1.703)
Respondent Completed 3+ Years Foreign Language [No = OR]				-3.506**	-3.273*	-2.887*
				(1.356)	(1.294)	(1.192)

Table 36 [cont].						
Respondent Completed Advanced				-1.208	-1.479	0.167
Science [No = OR]				(1.208)	(1.174)	(1.207)
Cumulative Academic GPA				-0.940	-0.955	-0.359
				(1.006)	(1.014)	(0.704)
High School Region [NE = OR]						
North Central					1.900	1.402
					(1.322)	(1.140)
South					1.707	1.426
					(1.221)	(1.055)
West					1.285	0.571
					(1.877)	(1.688)
High School Type [Public = OR]						
Catholic					0.890	-0.511
					(1.964)	(1.287)
Private					-4.631~	-3.930
					(2.480)	(2.516)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						1.155***
						(0.149)
Observations	560	560	560	560	560	560

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 37. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among black men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity						
[HS Diploma = OR]						
Less than High School Diploma	-0.667	-0.639	-0.801	-0.786	-0.715	-0.049
	(1.308)	(1.311)	(1.341)	(1.358)	(1.365)	(1.481)
Certificate	-4.595*	-4.207~	-4.058~	-4.177~	-4.581~	-4.217~
	(2.316)	(2.308)	(2.377)	(2.401)	(2.586)	(2.368)
Associate's Degree	-1.555	-1.638	-1.530	-1.540	-1.144	-0.996
	(1.995)	(2.029)	(2.003)	(2.056)	(2.006)	(2.116)
Non-selective Bachelor's Degree	-1.429	-1.259	-0.948	-0.994	-0.963	-1.271
	(1.310)	(1.323)	(1.495)	(1.506)	(1.505)	(1.349)
Moderately Selective Bachelor's Degree	-2.254	-2.087	-2.165	-2.779	-3.640	-1.454
	(2.219)	(1.978)	(2.376)	(2.796)	(3.131)	(2.558)
Very Selective Bachelor's Degree	-0.246	0.486	1.305	1.901	2.850	2.679
	(2.314)	(2.367)	(2.878)	(3.141)	(3.261)	(3.011)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.463	0.341	0.358	0.072	-1.146
		(1.818)	(1.862)	(1.897)	(2.020)	(1.673)
Respondent Lives with both Biological Parents [No = OR]		0.200	0.198	0.281	0.098	1.019
		(1.201)	(1.201)	(1.204)	(1.197)	(1.175)
Respondent is First Generation College Student [No = OR]		0.696	0.905	1.092	0.944	-0.134
		(0.860)	(0.929)	(0.892)	(0.902)	(0.772)
Yearly Family Income		-0.249	-0.219	-0.223	-0.187	-0.115
		(0.319)	(0.293)	(0.289)	(0.286)	(0.242)
Locus of Control			-0.274	-0.242	-0.253	-0.384
			(0.553)	(0.572)	(0.578)	(0.505)
Mathematics Test Score			-0.026	-0.017	-0.028	0.043
			(0.070)	(0.081)	(0.081)	(0.076)
Respondent Completed Advanced Mathematics [No = OR]				1.417	1.556	0.282
				(1.192)	(1.230)	(1.355)
Respondent Completed AP English [No = OR]				0.010	0.265	-1.598
				(1.828)	(1.978)	(2.583)
Respondent Completed 3+ Years Foreign Language [No = OR]				-1.283	-1.874	-1.459
				(1.060)	(1.359)	(1.423)

Table 37 [cont].						
Respondent Completed Advanced Science [No = OR]				-0.795	-0.385	-1.168
				(1.450)	(1.497)	(1.419)
Cumulative Academic GPA				-0.280	-0.533	0.221
				(0.738)	(0.751)	(0.724)
High School Region [NE = OR]						
North Central					0.103	-0.826
					(1.479)	(1.459)
South					-1.069	-0.837
					(1.492)	(1.494)
West					0.029	-0.581
					(1.621)	(1.445)
High School Type [Public = OR]						
Catholic					-1.167	-0.859
					(1.354)	(1.049)
Private					1.241	-0.847
					(2.837)	(2.794)
High School Enrollment Size					-0.001~	-0.001
					(0.001)	(0.000)
Respondent's BMI						0.994***
						(0.198)
Observations	430	430	430	430	430	430

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 38. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among Hispanic women, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.808	0.776	0.548	0.260	0.394	0.481
	(1.114)	(1.090)	(1.101)	(1.169)	(1.166)	(0.995)
Certificate	-2.245	-1.887	-1.606	-1.552	-1.434	-0.755
	(1.680)	(1.593)	(1.660)	(1.615)	(1.622)	(1.529)
Associate's Degree	-3.510**	-3.190**	-2.868**	-2.691*	-2.760*	-2.511*
	(1.067)	(1.095)	(1.107)	(1.123)	(1.136)	(1.067)
Non-selective Bachelor's Degree	-2.492*	-1.749	-1.284	-0.936	-1.055	-1.196
	(1.053)	(1.089)	(1.173)	(1.181)	(1.211)	(1.213)
Moderately Selective Bachelor's Degree	-4.782***	-3.029**	-2.468~	-2.765	-2.920~	-3.063~
	(1.059)	(1.167)	(1.391)	(1.692)	(1.713)	(1.593)
Very Selective Bachelor's Degree	-6.704***	-3.766**	-3.303*	-3.662*	-3.375*	-3.677*
	(0.914)	(1.205)	(1.308)	(1.543)	(1.605)	(1.598)
Observed Confounders						
Respondent Born in U.S. [No = OR]		-0.124	-0.078	-0.045	-0.235	1.069
		(1.273)	(1.320)	(1.342)	(1.343)	(1.066)
Respondent Lives with both Biological Parents [No = OR]		1.722~	1.624~	1.668~	1.505~	1.478~
		(0.933)	(0.905)	(0.893)	(0.904)	(0.806)
Respondent is First Generation College Student [No = OR]		-0.461	-0.287	-0.396	-0.389	-0.411
		(0.977)	(0.977)	(0.963)	(1.009)	(0.952)
Yearly Family Income		-0.804**	-0.766**	-0.784**	-0.743**	-0.574*
		(0.247)	(0.246)	(0.246)	(0.257)	(0.224)
Locus of Control			-0.835	-0.768	-0.752	-0.480
			(0.623)	(0.611)	(0.601)	(0.454)
Mathematics Test Score			0.004	0.028	0.024	0.014
			(0.067)	(0.072)	(0.074)	(0.065)
Respondent Completed Advanced Mathematics [No = OR]				0.341	0.353	0.979
				(1.332)	(1.324)	(1.331)
Respondent Completed AP English [No = OR]				1.359	1.179	1.932
				(2.179)	(2.262)	(2.424)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.471	0.586	0.580
				(1.098)	(1.077)	(1.051)

Table 38 [cont].

Respondent Completed Advanced Science [No = OR]				-0.011	0.086	0.574
				(1.010)	(1.019)	(0.839)
Cumulative Academic GPA				-0.960	-0.967	-0.455
				(0.608)	(0.623)	(0.546)
High School Region [NE = OR]						
North Central					-0.457	-0.391
					(1.470)	(1.226)
South					-0.178	-0.422
					(1.112)	(0.932)
West					-0.495	-0.411
					(1.020)	(0.831)
High School Type [Public = OR]						
Catholic					-0.052	-0.203
					(1.038)	(0.916)
Private					-1.621	-1.276
					(1.780)	(2.031)
High School Enrollment Size					-0.001	-0.001
					(0.000)	(0.000)
Respondent's BMI						0.962***
						(0.131)
Observations	840	840	840	840	840	840

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 39. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among Hispanic men, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.790	-0.933	-0.910	-1.092	-1.386	-1.594
	(0.957)	(1.010)	(1.031)	(1.047)	(1.069)	(1.076)
Certificate	1.123	1.126	1.123	1.200	0.870	0.980
	(1.607)	(1.628)	(1.672)	(1.660)	(1.618)	(1.431)
Associate's Degree	-0.751	-0.605	-0.629	-0.545	-0.724	-0.911
	(0.911)	(0.906)	(0.928)	(0.917)	(0.938)	(0.950)
Non-selective Bachelor's Degree	-2.040**	-1.876*	-1.924*	-1.630~	-1.534~	-1.239
	(0.770)	(0.763)	(0.824)	(0.833)	(0.792)	(0.849)
Moderately Selective Bachelor's Degree	-2.520***	-1.994***	-2.079**	-1.140	-0.400	-0.502
	(0.556)	(0.542)	(0.650)	(0.798)	(0.919)	(0.937)
Very Selective Bachelor's Degree	-0.979	-0.507	-0.656	0.043	-0.353	-0.701
	(1.102)	(1.226)	(1.310)	(1.543)	(1.818)	(1.480)
Observed Confounders						
Respondent Born in U.S. [No = OR]		0.159	0.136	0.057	0.237	0.117
		(0.867)	(0.860)	(0.888)	(0.903)	(0.883)
Respondent Lives with both Biological Parents [No = OR]		-0.079	-0.086	-0.191	-0.269	-0.311
		(0.789)	(0.793)	(0.802)	(0.806)	(0.778)
Respondent is First Generation College Student [No = OR]		-0.747	-0.765	-0.860	-0.871	-0.674
		(0.583)	(0.586)	(0.569)	(0.552)	(0.511)
Yearly Family Income		-0.160	-0.154	-0.147	-0.151	-0.087
		(0.161)	(0.166)	(0.160)	(0.163)	(0.167)
Locus of Control			-0.112	-0.051	-0.032	-0.038
			(0.303)	(0.309)	(0.327)	(0.320)
Mathematics Test Score			0.012	0.038	0.034	0.030
			(0.034)	(0.036)	(0.036)	(0.038)
Respondent Completed Advanced Mathematics [No = OR]				-0.544	-0.199	-0.380
				(0.885)	(0.894)	(0.835)
Respondent Completed AP English [No = OR]				-0.483	-0.573	-0.432
				(1.013)	(0.959)	(0.838)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.498	0.708	0.786
				(0.879)	(0.859)	(0.751)

Table 39 [cont].

Respondent Completed Advanced Science [No = OR]				-0.259	-0.178	0.167
				(0.726)	(0.699)	(0.675)
Cumulative Academic GPA				-0.797~	-0.880~	-0.817
				(0.469)	(0.476)	(0.527)
High School Region [NE = OR]						
North Central					2.085**	2.069**
					(0.805)	(0.795)
South					0.441	0.541
					(0.655)	(0.682)
West					1.431	1.519
					(1.016)	(1.039)
High School Type [Public = OR]						
Catholic					-0.693	-0.781
					(0.953)	(0.863)
Private					-2.602*	-2.930**
					(1.045)	(1.075)
High School Enrollment Size					0.000	0.000
					(0.000)	(0.000)
Respondent's BMI						0.478***
						(0.107)
Observations	800	800	800	800	800	800

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 40. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.012	-0.004	-0.012	-0.012	-0.006	-0.007
	(0.047)	(0.044)	(0.044)	(0.044)	(0.044)	(0.040)
Certificate	-0.078~	-0.069	-0.066	-0.067	-0.070~	-0.082*
	(0.043)	(0.042)	(0.043)	(0.042)	(0.042)	(0.040)
Associate's Degree	-0.090*	-0.063~	-0.058	-0.056	-0.052	-0.050
	(0.037)	(0.038)	(0.038)	(0.038)	(0.038)	(0.034)
Non-selective Bachelor's Degree	-0.157***	-0.119***	-0.108***	-0.095**	-0.093**	-0.081**
	(0.025)	(0.026)	(0.029)	(0.031)	(0.031)	(0.027)
Moderately Selective Bachelor's Degree	-0.169***	-0.105*	-0.089	-0.068	-0.059	-0.054
	(0.045)	(0.052)	(0.055)	(0.060)	(0.060)	(0.052)
Very Selective Bachelor's Degree	-0.296***	-0.260***	-0.248***	-0.238***	-0.228***	-0.240***
	(0.036)	(0.044)	(0.048)	(0.053)	(0.056)	(0.044)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.057~	0.048	0.052~	0.064*	0.017
		(0.029)	(0.030)	(0.030)	(0.031)	(0.027)
Black		0.175***	0.166***	0.167***	0.173***	0.116***
		(0.034)	(0.035)	(0.035)	(0.036)	(0.034)
Other		-0.049	-0.052	-0.053	-0.041	-0.037
		(0.050)	(0.050)	(0.050)	(0.053)	(0.051)
Respondent Born in U.S. [No = OR]		0.083~	0.083~	0.086~	0.073	0.068
		(0.046)	(0.046)	(0.046)	(0.048)	(0.053)
Respondent Lives with both Biological Parents [No = OR]		0.017	0.015	0.017	0.014	0.016
		(0.026)	(0.026)	(0.026)	(0.026)	(0.025)
Yearly Family Income		-0.025***	-0.024***	-0.024***	-0.022***	-0.014*
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.005	-0.005	-0.005	-0.006
			(0.012)	(0.012)	(0.012)	(0.011)
Mathematics Test Score			-0.001	-0.000	-0.000	0.000
			(0.001)	(0.002)	(0.002)	(0.001)

Table 40 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				-0.104***	-0.101***	-0.094***
				(0.029)	(0.029)	(0.026)
Respondent Completed AP English [No = OR]				0.022	0.021	0.001
				(0.044)	(0.044)	(0.038)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.011	0.030	0.015
				(0.031)	(0.033)	(0.030)
Respondent Completed Advanced Science [No = OR]				-0.027	-0.026	-0.006
				(0.035)	(0.035)	(0.032)
Cumulative Academic GPA				0.001	-0.004	0.012
				(0.018)	(0.019)	(0.017)
High School Region [NE = OR]						
North Central					0.047	0.040
					(0.030)	(0.028)
South					0.048	0.063*
					(0.031)	(0.029)
West					-0.002	0.012
					(0.033)	(0.030)
High School Type [Public = OR]						
Catholic					-0.041	-0.028
					(0.029)	(0.028)
Private					-0.025	0.003
					(0.069)	(0.055)
High School Enrollment Size					-0.000~	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.057***
						(0.003)
Observations	3,810	3,810	3,810	3,810	3,810	3,810

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 41. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.050	-0.050	-0.040	-0.048	-0.048	-0.023
	(0.041)	(0.041)	(0.043)	(0.043)	(0.042)	(0.043)
Certificate	0.032	0.042	0.043	0.043	0.042	0.054
	(0.057)	(0.057)	(0.056)	(0.057)	(0.055)	(0.047)
Associate's Degree	-0.068	-0.059	-0.066	-0.062	-0.065	-0.023
	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)	(0.043)
Non-selective Bachelor's Degree	-0.110***	-0.101***	-0.117***	-0.106***	-0.107***	-0.084**
	(0.027)	(0.028)	(0.028)	(0.030)	(0.030)	(0.028)
Moderately Selective Bachelor's Degree	-0.116*	-0.095~	-0.119*	-0.102~	-0.081	-0.072
	(0.051)	(0.053)	(0.053)	(0.058)	(0.060)	(0.055)
Very Selective Bachelor's Degree	-0.093	-0.074	-0.107	-0.075	-0.043	-0.052
	(0.099)	(0.103)	(0.101)	(0.108)	(0.112)	(0.095)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.018	-0.007	-0.009	-0.006	-0.021
		(0.031)	(0.032)	(0.032)	(0.032)	(0.032)
Black		0.098*	0.114**	0.115**	0.123**	0.103**
		(0.039)	(0.040)	(0.040)	(0.041)	(0.040)
Other		0.001	0.008	0.008	0.020	0.009
		(0.070)	(0.070)	(0.070)	(0.071)	(0.065)
Respondent Born in U.S. [No = OR]		0.062	0.060	0.057	0.052	0.020
		(0.072)	(0.073)	(0.073)	(0.074)	(0.074)
Respondent Lives with both Biological Parents [No = OR]		0.026	0.026	0.027	0.021	0.030
		(0.027)	(0.026)	(0.026)	(0.026)	(0.024)
Yearly Family Income		-0.013*	-0.014*	-0.014*	-0.012*	-0.007
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.004	-0.002	0.000	-0.007
			(0.013)	(0.013)	(0.013)	(0.013)
Mathematics Test Score			0.002~	0.003~	0.003~	0.003~
			(0.001)	(0.002)	(0.002)	(0.001)

Table 41 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				0.032	0.036	0.028
				(0.033)	(0.033)	(0.030)
Respondent Completed AP English [No = OR]				0.012	0.011	-0.006
				(0.052)	(0.052)	(0.046)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.004	0.023	0.038
				(0.041)	(0.043)	(0.039)
Respondent Completed Advanced Science [No = OR]				-0.045	-0.043	-0.037
				(0.036)	(0.037)	(0.036)
Cumulative Academic GPA				-0.026	-0.031	-0.019
				(0.020)	(0.020)	(0.020)
High School Region [NE = OR]						
North Central					0.059*	0.044
					(0.030)	(0.028)
South					0.016	0.017
					(0.034)	(0.033)
West					0.008	0.009
					(0.036)	(0.036)
High School Type [Public = OR]						
Catholic					-0.043	-0.036
					(0.032)	(0.029)
Private					-0.197***	-0.178***
					(0.043)	(0.042)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.056***
						(0.004)
Observations	3,350	3,350	3,350	3,350	3,350	3,350

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 42. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	1.227	0.995	0.907	0.850	0.901	0.841
	(1.089)	(1.013)	(1.020)	(1.000)	(0.990)	(0.803)
Certificate	-0.688	-0.541	-0.513	-0.512	-0.561	-0.788
	(0.599)	(0.574)	(0.573)	(0.578)	(0.581)	(0.539)
Associate's Degree	-1.223*	-0.720	-0.669	-0.623	-0.566	-0.568
	(0.555)	(0.563)	(0.563)	(0.565)	(0.570)	(0.468)
Non-selective Bachelor's Degree	-2.110***	-1.370***	-1.240**	-1.070**	-1.020*	-0.866*
	(0.348)	(0.359)	(0.379)	(0.396)	(0.397)	(0.341)
Moderately Selective Bachelor's Degree	-3.376***	-2.112**	-1.925**	-1.692*	-1.494~	-1.511*
	(0.733)	(0.724)	(0.746)	(0.779)	(0.772)	(0.678)
Very Selective Bachelor's Degree	-5.003***	-3.822***	-3.579***	-3.339***	-2.909**	-2.679***
	(0.894)	(0.852)	(0.887)	(0.906)	(0.940)	(0.808)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		1.360**	1.267**	1.297**	1.463**	0.549
		(0.470)	(0.481)	(0.480)	(0.495)	(0.439)
Black		3.697***	3.608***	3.621***	3.618***	2.626***
		(0.581)	(0.606)	(0.604)	(0.606)	(0.501)
Other		-0.954	-0.983	-0.987	-0.713	-0.487
		(0.633)	(0.637)	(0.640)	(0.668)	(0.697)
Respondent Born in U.S. [No = OR]		1.016	1.010	1.034	0.834	0.834
		(0.797)	(0.797)	(0.803)	(0.798)	(0.767)
Respondent Lives with both Biological Parents [No = OR]		0.340	0.329	0.361	0.318	0.382
		(0.424)	(0.422)	(0.423)	(0.423)	(0.356)
Yearly Family Income		-0.379***	-0.369***	-0.372***	-0.335***	-0.210**
		(0.085)	(0.085)	(0.086)	(0.087)	(0.076)
Locus of Control			-0.047	-0.023	-0.004	-0.025
			(0.192)	(0.193)	(0.192)	(0.163)
Mathematics Test Score			-0.015	0.000	0.002	0.008
			(0.021)	(0.025)	(0.025)	(0.022)

Table 42 [cont].

Respondent Completed Advanced				-0.610	-0.567	-0.498
Mathematics [No = OR]				(0.421)	(0.422)	(0.365)
Respondent Completed AP English				0.294	0.251	-0.063
[No = OR]				(0.630)	(0.618)	(0.490)
Respondent Completed 3+ Years				-0.044	0.234	0.024
Foreign Language [No = OR]				(0.395)	(0.413)	(0.367)
Respondent Completed Advanced				-0.163	-0.139	0.098
Science [No = OR]				(0.401)	(0.395)	(0.355)
Cumulative Academic GPA				-0.249	-0.331	-0.014
				(0.268)	(0.274)	(0.235)
High School Region [NE = OR]						
North Central					0.578	0.455
					(0.396)	(0.372)
South					0.818~	1.034**
					(0.448)	(0.398)
West					-0.240	-0.077
					(0.465)	(0.413)
High School Type [Public = OR]						
Catholic					-0.763*	-0.530
					(0.374)	(0.354)
Private					-1.077	-0.562
					(0.941)	(0.733)
High School Enrollment Size					-0.000*	-0.000
					(0.000)	(0.000)
Respondent's BMI						1.064***
						(0.059)
Observations	3,810	3,810	3,810	3,810	3,810	3,810

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 43. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men who do not have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-1.039*	-1.137*	-1.155*	-1.313*	-1.301*	-0.976~
	(0.513)	(0.515)	(0.526)	(0.533)	(0.528)	(0.512)
Certificate	0.665	0.845	0.861	0.844	0.834	0.944~
	(0.750)	(0.747)	(0.745)	(0.749)	(0.723)	(0.550)
Associate's Degree	-0.748~	-0.592	-0.577	-0.519	-0.552	-0.008
	(0.437)	(0.433)	(0.431)	(0.425)	(0.416)	(0.396)
Non-selective Bachelor's Degree	-1.416***	-1.194***	-1.161***	-0.932**	-0.977**	-0.713*
	(0.307)	(0.306)	(0.326)	(0.343)	(0.343)	(0.322)
Moderately Selective Bachelor's Degree	-1.721***	-1.256**	-1.224*	-0.888~	-0.656	-0.541
	(0.453)	(0.457)	(0.484)	(0.528)	(0.520)	(0.497)
Very Selective Bachelor's Degree	-1.961~	-1.488	-1.449	-0.922	-0.482	-0.595
	(1.092)	(1.037)	(1.082)	(1.112)	(1.047)	(0.879)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		0.309	0.287	0.257	0.306	0.112
		(0.339)	(0.348)	(0.349)	(0.348)	(0.357)
Black		1.373*	1.367*	1.384**	1.480**	1.228*
		(0.535)	(0.535)	(0.532)	(0.541)	(0.496)
Other		0.458	0.432	0.461	0.671	0.592
		(0.547)	(0.545)	(0.541)	(0.564)	(0.594)
Respondent Born in U.S. [No = OR]		1.195*	1.185*	1.143~	1.046~	0.648
		(0.582)	(0.585)	(0.587)	(0.583)	(0.585)
Respondent Lives with both Biological Parents [No = OR]		0.329	0.316	0.327	0.242	0.420
		(0.341)	(0.340)	(0.339)	(0.329)	(0.297)
Yearly Family Income		-0.255***	-0.251***	-0.260***	-0.238***	-0.169**
		(0.066)	(0.065)	(0.066)	(0.066)	(0.060)
Locus of Control			-0.104	-0.060	-0.032	-0.133
			(0.143)	(0.145)	(0.146)	(0.131)
Mathematics Test Score			0.002	0.014	0.014	0.011
			(0.016)	(0.017)	(0.017)	(0.016)

Table 43 [cont].

Respondent Completed Advanced				0.267	0.303	0.145
Mathematics [No = OR]				(0.342)	(0.336)	(0.300)
Respondent Completed AP English				0.270	0.275	-0.057
[No = OR]				(0.574)	(0.574)	(0.489)
Respondent Completed 3+ Years				-0.146	0.173	0.404
Foreign Language [No = OR]				(0.370)	(0.373)	(0.321)
Respondent Completed Advanced				-0.331	-0.293	-0.189
Science [No = OR]				(0.311)	(0.307)	(0.290)
Cumulative Academic GPA				-0.496*	-0.551*	-0.410~
				(0.222)	(0.222)	(0.213)
High School Region [NE = OR]						
North Central					0.931**	0.718*
					(0.309)	(0.294)
South					0.420	0.385
					(0.361)	(0.342)
West					0.026	0.016
					(0.366)	(0.373)
High School Type [Public = OR]						
Catholic					-0.402	-0.391
					(0.313)	(0.289)
Private					-1.971***	-1.747***
					(0.589)	(0.521)
High School Enrollment Size					-0.000~	-0.000~
					(0.000)	(0.000)
Respondent's BMI						0.751***
						(0.049)
Observations	3,350	3,350	3,350	3,350	3,350	3,350

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 44. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.005	0.026	0.004	0.080	0.055	0.065
	(0.141)	(0.143)	(0.144)	(0.160)	(0.159)	(0.174)
Certificate	-0.068	-0.093	-0.095	-0.101	-0.086	-0.059
	(0.129)	(0.104)	(0.107)	(0.106)	(0.117)	(0.113)
Associate's Degree	0.059	0.067	0.064	0.072	0.072	0.036
	(0.103)	(0.102)	(0.098)	(0.099)	(0.097)	(0.085)
Non-selective Bachelor's Degree	-0.139*	-0.122*	-0.127*	-0.143*	-0.141*	-0.115*
	(0.058)	(0.057)	(0.065)	(0.064)	(0.068)	(0.058)
Moderately Selective Bachelor's Degree	-0.172**	-0.145*	-0.144~	-0.160*	-0.158*	-0.124~
	(0.066)	(0.067)	(0.075)	(0.072)	(0.073)	(0.065)
Very Selective Bachelor's Degree	-0.193**	-0.172*	-0.180*	-0.198**	-0.202**	-0.187**
	(0.071)	(0.072)	(0.078)	(0.075)	(0.073)	(0.062)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.002	0.003	0.021	0.020	-0.021
		(0.059)	(0.059)	(0.060)	(0.060)	(0.059)
Black		0.137	0.146	0.163	0.182~	0.090
		(0.099)	(0.102)	(0.105)	(0.107)	(0.088)
Other		0.071	0.066	0.033	0.017	0.082
		(0.121)	(0.125)	(0.112)	(0.102)	(0.098)
Respondent Born in U.S. [No = OR]		0.075	0.072	0.072	0.060	0.076
		(0.065)	(0.069)	(0.072)	(0.076)	(0.057)
Respondent Lives with both Biological Parents [No = OR]		0.027	0.022	0.024	0.017	0.014
		(0.050)	(0.051)	(0.046)	(0.050)	(0.045)
Yearly Family Income		-0.020~	-0.019~	-0.019~	-0.016	-0.011
		(0.010)	(0.010)	(0.010)	(0.011)	(0.010)
Locus of Control			-0.036	-0.046~	-0.046~	-0.035
			(0.025)	(0.025)	(0.024)	(0.022)
Mathematics Test Score			0.002	0.000	0.000	0.000
			(0.003)	(0.003)	(0.003)	(0.003)

Table 44 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				-0.052	-0.048	-0.040
				(0.040)	(0.038)	(0.037)
Respondent Completed AP English [No = OR]				0.001	-0.017	0.007
				(0.059)	(0.054)	(0.056)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.007	0.013	0.011
				(0.042)	(0.042)	(0.037)
Respondent Completed Advanced Science [No = OR]				0.039	0.046	0.067
				(0.054)	(0.054)	(0.046)
Cumulative Academic GPA				0.071~	0.069~	0.060~
				(0.037)	(0.036)	(0.032)
High School Region [NE = OR]						
North Central					-0.060	-0.047
					(0.047)	(0.040)
South					-0.005	0.043
					(0.056)	(0.053)
West					0.028	0.031
					(0.060)	(0.054)
High School Type [Public = OR]						
Catholic					-0.039	-0.031
					(0.041)	(0.042)
Private					-0.067	-0.069
					(0.068)	(0.067)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.043***
						(0.006)
Observations	670	670	670	670	670	670

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 45. AME from logistic models predicting obesity in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.355***	-0.347***	-0.347***	-0.330***	-0.319***	-0.278**
	(0.069)	(0.064)	(0.064)	(0.066)	(0.064)	(0.089)
Certificate	0.029	0.028	0.003	0.001	0.017	-0.014
	(0.141)	(0.137)	(0.129)	(0.120)	(0.122)	(0.122)
Associate's Degree	-0.029	0.006	0.013	0.010	-0.003	-0.040
	(0.127)	(0.133)	(0.133)	(0.125)	(0.120)	(0.124)
Non-selective Bachelor's Degree	-0.145*	-0.120~	-0.115~	-0.110	-0.101	-0.102
	(0.064)	(0.066)	(0.070)	(0.068)	(0.067)	(0.063)
Moderately Selective Bachelor's Degree	-0.116	-0.091	-0.091	-0.055	-0.013	-0.036
	(0.089)	(0.088)	(0.090)	(0.096)	(0.102)	(0.088)
Very Selective Bachelor's Degree	-0.380***	-0.357***	-0.353***	-0.342***	-0.331***	-0.295***
	(0.052)	(0.055)	(0.058)	(0.059)	(0.058)	(0.070)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.070	-0.078	-0.076	-0.088	-0.065
		(0.067)	(0.065)	(0.066)	(0.065)	(0.062)
Black		0.162	0.129	0.137	0.138	0.078
		(0.103)	(0.100)	(0.100)	(0.102)	(0.087)
Other		-0.095	-0.096	-0.076	-0.098	-0.096
		(0.104)	(0.103)	(0.110)	(0.102)	(0.084)
Respondent Born in U.S. [No = OR]		-0.061	-0.054	-0.060	-0.047	-0.046
		(0.115)	(0.111)	(0.114)	(0.116)	(0.108)
Respondent Lives with both Biological Parents [No = OR]		0.065	0.063	0.057	0.050	0.043
		(0.066)	(0.066)	(0.064)	(0.064)	(0.063)
Yearly Family Income		-0.024~	-0.023	-0.018	-0.021	-0.018
		(0.015)	(0.014)	(0.014)	(0.014)	(0.014)
Locus of Control			0.051	0.052~	0.053~	0.037
			(0.031)	(0.030)	(0.029)	(0.028)
Mathematics Test Score			-0.004	-0.004	-0.003	-0.002
			(0.003)	(0.003)	(0.003)	(0.003)

Table 45 [cont].

Respondent Completed Advanced				0.017	0.023	0.034
Mathematics [No = OR]				(0.054)	(0.054)	(0.050)
Respondent Completed AP English				0.134	0.143	0.082
[No = OR]				(0.096)	(0.091)	(0.073)
Respondent Completed 3+ Years				-0.127*	-0.113*	-0.108*
Foreign Language [No = OR]				(0.055)	(0.055)	(0.050)
Respondent Completed Advanced				-0.112*	-0.107*	-0.089~
Science [No = OR]				(0.055)	(0.053)	(0.050)
Cumulative Academic GPA				0.011	0.003	0.014
				(0.043)	(0.043)	(0.043)
High School Region [NE = OR]						
North Central					0.092	0.074
					(0.059)	(0.055)
South					0.102	0.072
					(0.065)	(0.058)
West					0.102	0.067
					(0.065)	(0.059)
High School Type [Public = OR]						
Catholic					0.103~	0.093~
					(0.059)	(0.053)
Private					-0.046	-0.032
					(0.105)	(0.094)
High School Enrollment Size					0.000	0.000
					(0.000)	(0.000)
Respondent's BMI						0.059***
						(0.009)
Observations	680	680	680	680	680	680

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10

Source: High School and Beyond Sophomore Cohort

Table 46. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among women who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	0.855	1.130	1.084	1.706	1.323	1.475
	(2.393)	(2.373)	(2.434)	(2.296)	(2.365)	(2.302)
Certificate	0.912	0.347	0.321	0.262	0.367	0.994
	(2.608)	(2.200)	(2.212)	(2.192)	(2.179)	(1.721)
Associate's Degree	-0.025	0.027	-0.024	0.009	0.026	-0.553
	(1.354)	(1.375)	(1.350)	(1.342)	(1.358)	(1.127)
Non-selective Bachelor's Degree	-1.824**	-1.612*	-1.834*	-2.003*	-1.890*	-1.340
	(0.705)	(0.722)	(0.870)	(0.903)	(0.916)	(0.819)
Moderately Selective Bachelor's Degree	-2.664**	-2.187*	-2.344*	-2.467*	-2.467*	-1.713~
	(0.905)	(0.944)	(1.065)	(1.123)	(1.123)	(0.985)
Very Selective Bachelor's Degree	-2.278**	-1.947*	-2.444*	-2.548*	-2.656*	-2.490*
	(0.845)	(0.914)	(1.157)	(1.215)	(1.210)	(1.089)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.157	-0.034	0.038	0.242	-0.410
		(0.884)	(0.889)	(0.909)	(0.908)	(0.802)
Black		3.342*	3.533*	3.609*	3.720*	2.377~
		(1.455)	(1.494)	(1.499)	(1.527)	(1.276)
Other		0.195	0.234	-0.070	-0.152	0.956
		(1.390)	(1.468)	(1.491)	(1.438)	(1.253)
Respondent Born in U.S. [No = OR]		0.572	0.562	0.435	0.307	0.565
		(1.241)	(1.281)	(1.296)	(1.305)	(1.042)
Respondent Lives with both Biological Parents [No = OR]		0.593	0.533	0.546	0.486	0.528
		(0.728)	(0.729)	(0.711)	(0.724)	(0.657)
Yearly Family Income		-0.343*	-0.330*	-0.326~	-0.293~	-0.199
		(0.165)	(0.166)	(0.167)	(0.168)	(0.150)
Locus of Control			-0.477	-0.621~	-0.653~	-0.436
			(0.357)	(0.352)	(0.346)	(0.319)
Mathematics Test Score			0.048	0.032	0.041	0.021
			(0.042)	(0.042)	(0.043)	(0.040)

Table 46 [cont].

Respondent Completed Advanced Mathematics [No = OR]				-0.946~	-0.919~	-0.715
				(0.525)	(0.509)	(0.525)
Respondent Completed AP English [No = OR]				-0.465	-0.648	-0.157
				(0.759)	(0.741)	(0.702)
Respondent Completed 3+ Years Foreign Language [No = OR]				0.195	0.370	0.258
				(0.543)	(0.553)	(0.468)
Respondent Completed Advanced Science [No = OR]				0.095	0.059	0.248
				(0.596)	(0.594)	(0.508)
Cumulative Academic GPA				0.876~	0.791~	0.716~
				(0.479)	(0.478)	(0.432)
High School Region [NE = OR]						
North Central					-0.616	-0.213
					(0.651)	(0.579)
South					-0.639	0.385
					(0.730)	(0.680)
West					0.335	0.446
					(0.811)	(0.791)
High School Type [Public = OR]						
Catholic					-1.323*	-1.087*
					(0.556)	(0.527)
Private					-1.724*	-1.655~
					(0.806)	(0.849)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						1.006***
						(0.125)
Observations	670	670	670	670	670	670

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

Table 47. AME from linear probability models predicting BMI in midlife as a function of educational attainment level and selectivity among men who have at least one parent with a bachelor's degree, net of key demographic and structural factors observed during adolescence (including academic course-taking and performance in high school)

	(1)	(2)	(3)	(4)	(5)	(6)
Educational Attainment Level and Selectivity [HS Diploma = OR]						
Less than High School Diploma	-0.050	-0.051	-0.040	-0.048	-0.048	-0.023
	(0.041)	(0.041)	(0.043)	(0.043)	(0.043)	(0.043)
Certificate	0.032	0.042	0.042	0.042	0.042	0.050
	(0.057)	(0.057)	(0.056)	(0.057)	(0.055)	(0.046)
Associate's Degree	-0.068	-0.059	-0.066	-0.062	-0.065	-0.024
	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)	(0.042)
Non-selective Bachelor's Degree	-0.110***	-0.101***	-0.118***	-0.106***	-0.107***	-0.088**
	(0.027)	(0.028)	(0.029)	(0.030)	(0.030)	(0.029)
Moderately Selective Bachelor's Degree	-0.116*	-0.093~	-0.119*	-0.101~	-0.079	-0.070
	(0.051)	(0.051)	(0.054)	(0.058)	(0.057)	(0.056)
Very Selective Bachelor's Degree	-0.093	-0.073	-0.108	-0.076	-0.043	-0.051
	(0.099)	(0.100)	(0.104)	(0.105)	(0.103)	(0.095)
Observed Confounders						
Race/ethnicity [White = OR]						
Hispanic		-0.019	-0.007	-0.010	-0.006	-0.021
		(0.032)	(0.033)	(0.033)	(0.033)	(0.033)
Black		0.100*	0.115**	0.115**	0.124**	0.105**
		(0.040)	(0.040)	(0.040)	(0.041)	(0.039)
Other		0.001	0.008	0.008	0.020	0.014
		(0.070)	(0.070)	(0.069)	(0.070)	(0.066)
Respondent Born in U.S. [No = OR]		0.062	0.060	0.057	0.053	0.023
		(0.072)	(0.073)	(0.073)	(0.074)	(0.073)
Respondent Lives with both Biological Parents [No = OR]		0.027	0.026	0.027	0.021	0.034
		(0.027)	(0.027)	(0.027)	(0.027)	(0.025)
Yearly Family Income		-0.013*	-0.014*	-0.014*	-0.012*	-0.007
		(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Locus of Control			-0.004	-0.002	0.000	-0.008
			(0.013)	(0.013)	(0.013)	(0.013)
Mathematics Test Score			0.002~	0.003~	0.003~	0.003~
			(0.001)	(0.002)	(0.002)	(0.001)

Table 47 [cont].						
Respondent Completed Advanced Mathematics [No = OR]				0.031	0.034	0.022
				(0.031)	(0.031)	(0.029)
Respondent Completed AP English [No = OR]				0.012	0.012	-0.013
				(0.049)	(0.049)	(0.044)
Respondent Completed 3+ Years Foreign Language [No = OR]				-0.003	0.024	0.041
				(0.039)	(0.039)	(0.037)
Respondent Completed Advanced Science [No = OR]				-0.044	-0.041	-0.034
				(0.035)	(0.035)	(0.035)
Cumulative Academic GPA				-0.026	-0.031	-0.020
				(0.020)	(0.020)	(0.020)
High School Region [NE = OR]						
North Central					0.060*	0.044
					(0.030)	(0.029)
South					0.017	0.014
					(0.034)	(0.033)
West					0.008	0.007
					(0.036)	(0.037)
High School Type [Public = OR]						
Catholic					-0.043	-0.042
					(0.031)	(0.029)
Private					-0.193***	-0.176***
					(0.044)	(0.041)
High School Enrollment Size					-0.000	-0.000
					(0.000)	(0.000)
Respondent's BMI						0.056***
						(0.004)
Observations	680	680	680	680	680	680

Notes: Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, ~ p<0.10
Source: High School and Beyond Sophomore Cohort

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