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**LEFT BEHIND?  
THE CONSERVATIVE PROTESTANT GAP IN  
EDUCATIONAL ATTAINMENT**

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**LEFT BEHIND?  
THE CONSERVATIVE PROTESTANT GAP IN  
EDUCATIONAL ATTAINMENT**

**by**

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**Dissertation**

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## **Dedication**

For Elizabeth Ann, Charles Houston, and Claire Ellen

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**Left Behind?**  
**The Conservative Protestant Gap in**  
**Educational Attainment**

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About one-fourth of Americans claim a conservative Protestant (CP) religious affiliation, making conservative Protestantism the largest religious tradition in the United States. CPs lag behind other religious groups in average educational attainment. Despite notable government efforts to ensure that no young American is “left behind,” relatively little scholarly attention has been paid to the CP educational gap.

In this dissertation, I begin by using 30 years of data from the GSS to describe the CP gap, especially noting that the CP gap is largely driven by relatively lower rates of college attendance among CPs. After socio-demographic factors are taken into account, the CP gap in college attendance is larger than the more widely studied black-white gap in college attendance. Thus, the remainder of this dissertation focuses exclusively on the CP gap in college attendance.

The most commonly offered explanation for the CP educational gap is that CPs resist schooling because of anti-educational elements in CP culture. I directly test several



hypotheses related to the resistance theory, in addition to examining alternative hypotheses related to resource deficiencies, educational ambivalence, and demographic factors.

Specifically, I analyze data from multiple waves of the Add Health study along with data from the companion AHAA study. In chapter 5, I find that White CPs are less likely to want to attend college than their non-CP peers. In chapter 6, I discover that CPs (regardless of race and gender) are less likely than non-CP peers to complete upper-level courses, but no more likely to post lower GPAs. Finally, in chapter 7, I directly investigate college matriculation and find that CPs are less likely than their non-CP peers to attend college, largely because of resource deficiencies but, to a lesser degree because of their lower aspirations and inadequate preparation.

Ultimately, I find little evidence that CPs are directly resisting college attendance. Instead, they appear to be disadvantaged at fairly young ages due to relative resource deficiencies compared with non-CP peers. In light of these findings, future investigations would best be directed at understanding educationally related interactions between CPs and their parents.

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# Chapter 1

## Introduction

Best sellers among conservative Protestants, the *Left Behind* novels describe the struggles of non-believers who remain to face the apocalypse after devout Christians are whisked away safely to heaven<sup>1</sup>. Ironically, “left behind” could also describe the educational fortunes of many conservative Protestants (hereafter “CPs”). This large and easily identified social group—about one-fourth of Americans affiliate with a CP denomination<sup>2</sup>—averages about one fewer years of schooling completed than Americans from other religious traditions. Despite the relative abundance of CPs, the substantial size of their educational gap, and recent public policy efforts to ensure that no child gets left behind, the CP educational attainment gap (hereafter “the CP gap” or “the gap”) has received relatively little popular or scholarly attention.

Unlike the other social groups with notable educational gaps, CPs haven’t faced any obvious discrimination or structured disadvantage. Combine this dearth of discriminatory explanations with CP’s well publicized efforts to bring prayer into public schools and force evolution out, and it’s not surprising that the most proffered reason for the CP gap is that CPs are resisting educational advancement, *leaving themselves behind*.

Almost all the research thus far on CP educational attainment indicts conservative Protestants’ particular subcultural beliefs for producing the gap. Whether the explanation for the gap is direct resistance (Darnell and Sherkat 1997), resource disadvantages (Park

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<sup>1</sup> This whisking away is known as “the Rapture” and is a popular doctrine among conservative Protestants. The 16 novels in the series were written by Tim LaHaye and Jerry Jenkins and published by Tyndale House from 1995-2007.

<sup>2</sup> Social scientists have also referred to conservative Protestants as “fundamentalists,” “evangelicals,” or “evangelical Protestants.” In this paper, I follow Woodberry and Smith (1998) in using conservative Protestant as an umbrella term describing a tradition that includes multiple denominations (conservative Baptists, conservative Presbyterians, etc.) as well as more specialized traditions (such as Pentecostal, fundamentalist, and evangelical).

and Reimer 2002, Keister 2003), early marriage (Fitzgerald and Glass 2008), cultural beliefs and practices related to race and gender (Glass and Jacobs 2005), or even cumulative deficits in verbal ability (Sherkat 2010), CP culture furnishes the ultimate, underlying cause. Adding his study to the mounting claims of CP culture driving the gap, Sherkat (2010) writes:

These findings point to an important connection between culture and stratification outcomes. While other investigations of oppositional cultures have tried to identify peer guided orientations that might stifle attainment (Ainsworth-Darnell and Downey 1998; Ogbu 2004), conservative religion provides a much more direct and institutionally-driven cultural influence on stratification outcomes.

Indeed, it is a good time to be investigating cultural explanations of inequality. Both popular (Cohen 2010) and academic (Vaisey 2010) works have begun to rehabilitate the once derelict line of inquiry. Advances in understanding how culture “works” cognitively (see Vaisey 2009), along with renewed efforts to creatively measure culture, are beginning to move “culture of poverty” theories away from the “blame the victim” trap. In this new quest to investigate the potential material consequences of culture, it would be difficult to find a better subject of study than the CP gap. CPs carry little of the victim stigma associated with social groups who have experienced discrimination and institutionalized deprivation, allowing for a less politicized discussion of CP culture and inequality. More importantly, (as indicated in the Sherkat quote above) CP culture is highly institutionalized (CPs have well defined beliefs, clearly organized social units, large media-producing organizations, etc.), facilitating the measurement of certain aspects of CP culture, such as religious attendance or Bible beliefs<sup>3</sup>. Thus, CPs are excellent subjects for an investigation of when and how culture works to create or reproduce inequality.

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<sup>3</sup> Of course, not all CP affiliates are equally “acculturated.” The point here is that the centers and means of CP cultural production (and by extension, the cultural products) are fairly easily identified. Thus, we can have some reasonable expectation of successfully measuring CP culture.



As alluded to above, scholars have already produced a modest body of literature on the CP gap. Thus far the scattered set of studies invokes a number of theories and attendant mechanisms claiming to explain the CP gap. The resulting literature is somewhat incoherent and raises nearly as many puzzles as it solves. With this dissertation, I launch a new line of inquiry into the CP gap. Building on the insights of previous studies, I begin by investigating why CPs enter college at lower rates than other religious groups. By using high quality panel data and focusing on the transition to college, I am able to simultaneously test the major explanations offered in previous studies.

I do not attempt here to decisively answer whether CP culture is indeed to blame for the gap. Instead, I try to identify measurable and proximate mechanisms which link CP affiliation with key educational outcomes. Clearly understanding the *how* of the CP gap will illuminate and guide future investigations of the *why*.

Throughout this dissertation, I shed new light via two cross-cutting themes. First, and in contrast to most of the previous work on the CP gap, I do not view the educational trajectory of students as a series of qualitatively equivalent “years of schooling.” Instead, I describe the educational course as a pipeline, involving critical transitions and vulnerabilities, areas where students’ progress may “lose pressure” or even “leak out.” Second, I utilize recent insights from the study of culture and cognition to describe the various mechanisms as more or less discursive. Some older work on culture assumed that persons should be able articulate the way culturally based values or norms influenced their behavior. But some newer work argues that culture often operates most powerfully at a subversive level, informing visceral responses and habituated behaviors (see Vaisey 2009, building on the work of Bourdieu and others). If CP culture is influencing CPs educational outcomes, it will be important to understand whether the mechanisms linking

culture to educationally-relevant behaviors are more discursive and able to be articulated, or more subversive and habituated.

By focusing on the transition to college in this study, I examine a critical part of the educational pipeline at the convergence of two streams: a big decision (whether or not to attend college) that likely involves some discursive use of culture, and the sum total of thousands of smaller, often habituated, decisions that leave students more or less relatively well prepared for college. Specifically, I investigate two key mechanisms linking CP affiliation to college attendance. First, *college aspirations* indicate how much students want to attend college. In various ways, CP culture may influence CP students to be ambivalent or even skeptical about the value of pursuing higher education. Second, *college preparation* likely indicates not only a desire to attend college but the effort and ability to take the necessary steps that will lead to college admissions. Whether they want to attend college or not, CP students may not take the challenging courses or achieve the stronger grades needed for college matriculation. In addition to directly examining the association of CP affiliation on college aspirations and college preparation, I also explore whether or not CPs actually attend college at lower rates than their non-CP peers and to what degree their college attendance (or lack thereof) is explained by the aspirations and preparation.

Theoretically, I engage four different kinds of previous explanations for the CP gap. First, I give special attention to the most frequently and forcefully given account: that CPs *resist education* by intentionally avoiding college or by avoiding advanced high school courses which prepare them for college. Throughout this dissertation, I conduct several rigorous tests of various hypotheses which would lend support to the resistance explanation. Second, I consider *resource based explanations* for the CP gap. Historically, CPs have come from lower socio-economic strata than their more affluent mainline

Protestant peers, and more recent work indicates that CPs may continue to transmit this relative disadvantage intergenerationally (e.g. Keister 2003). Third, rather than a direct resistance, some scholars have suggested that CPs are *ambivalent* about educational advancement, desiring more schooling but only when it fits with other relatively more important life goals, such as beginning a family (e.g. Fitzgerald and Glass 2008). Finally, a number of scholars from all three of these previous perspectives have noted that CP approaches to education may differ across certain *demographic characteristics*. CPs have more conservative ideas about gender roles, which may influence educational investments differentially by gender. And CP congregations have been historically segregated along racial lines, facilitating nuanced views on education that differ across racial groups. CPs are also disproportionately concentrated in the South, a region historically associated with lower levels of educational advancement.

Using the National Study of Adolescent Health (Add Health), an outstanding panel study that follows students from high school into early adulthood, I am able to observe the transition to college for a recent cohort of students. By applying the analytical and theoretical approaches described above in a series of studies using the Add Health data, this dissertation significantly refocuses the study of the CP gap by identifying how the gap occurs during the critical transition to college.

## **OUTLINE OF THE DISSERTATION**

Chapter 2 “clears the decks” for the primary analyses of the dissertation. Using pooled General Social Survey (GSS) data from the last 30 years, I address several concerns which help motivate my further analysis. Specifically, I demonstrate that the CP educational gap is not diminishing, that it is not explained simply by socio-economic factors, that CP affiliation is a legitimate analytical category, and that the CP gap is

driven primarily by CPs lack of college attendance as opposed to high school or college drop-out.

Where Chapter 2 presents an empirical case for my approach, Chapter 3 presents the theoretical case. In Chapter 3, I engage heavily with previous studies on the CP gap, as well as introducing the pipeline metaphor and new cultural perspective.

Chapter 4 describes the Add Health data set, along with the companion Adolescent Health and Academic Achievement (AHAA) study, which adds high school transcript data for Add Health respondents. Sample filters, construction of measures, and analytic approach are also discussed.

Chapters 5, 6, and 7 constitute the main empirical studies of this dissertation. Chapter 5 includes an analysis of CPs college aspirations, measured while they are high school, compared with the aspirations of their non-CP peers. Chapter 6 is a study of college preparations, modeled specifically as high school course taking and high school GPA, measured using end-of-high-school transcripts. Chapter 7 looks directly at whether the Add Health respondents, now young adults aged 24 and older ever attended college. The outcomes of the earlier studies become mechanisms in this final study as I evaluate *how* CPs are more likely to miss out on college.

Chapter 8 concludes this dissertation by revisiting the findings in light of the pipeline metaphor and cognitive depth of the mechanisms investigated. I also evaluate the four theoretical explanations for the CP gap in light of my findings, discuss the limitations of this dissertation, and offer suggestions for future research.

## Chapter 2

### **Beginning with a Thorough Description of The Conservative-Protestant Gap in Educational Attainment**

Before launching into the primary analysis of this dissertation, it will be helpful to offer a thorough and precise *description* of the CP gap. Good descriptive work establishes a baseline for future research and encourages consistency in our measures of this important inequality.

This chapter seeks to describe the CP gap, establish its significance, and motivate further analysis while also specifying the targets for that analysis. After a short summary of CPs' historical relationship to education, this chapter briefly outlines some key assertions in the literature related to the CP gap. It then uses nationally representative data from the last 30 years to thoroughly describe the gap, specifically answering five important and interrelated questions (listed here but described further below):

1. How large is the CP gap, and how does it compare to the more well-known (and well-studied) black-white educational gap?
2. How has the CP gap changed over time?
3. How much of the gap can be explained by sociodemographic factors—such as parents' education?
4. Are there certain subsets of conservative Protestants (such as Pentecostals) for whom the gap is significantly larger or smaller?
5. At what stage(s) are conservative Protestants “dropping out” of the educational system?

## CONSERVATIVE PROTESTANTS AND EDUCATION

Conservative Protestants have been in America since Colonial times. Their growth was especially pronounced on the frontier, where CP evangelists started new churches and ordained new ministers without waiting on credentialed ministers from the East to fill the demand. Already sectarian in comparison to their more institutional mainline Protestant<sup>4</sup> and Catholic counterparts, CPs became even more suspicious of “worldly” influences—such as higher education—during the Second Great Awakening (c. 1790–1840). The Pentecostal revivals of the early twentieth century only added more sectarian character to the broader group of CPs. Most of the individual CP denominations eventually started their own colleges, usually to train their own ministers.

Over the decades, various CP groups have moved closer to the American mainstream—particularly modern evangelicals, who broke from fundamentalists in the mid-twentieth century seeking to forge a more intellectually sound faith. There remains within the CP ethos, however, a deep concern about protecting youth from secular influences—and these sometimes include education. (For an excellent review of CP history, see Woodberry and Smith 1998.)

In recent times, conservative Protestants—or at least the subgroup of “evangelicals”—have been gradually moving closer to American mainstream culture (Smith 1998). And CP elites have clearly made noteworthy inroads into the upper strata of American society (Lindsay 2007). Several studies present evidence that CPs have made important gains in educational attainment. In particular, Park and Reimer (2002) find evidence of a slow convergence among religious groups on demographics related to

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<sup>4</sup> Protestants, whether conservative or mainline, share a common heritage of protest against the Catholic church. Unlike the Catholic model, which houses diverse beliefs and subcultures under the umbrella of one worldwide church, the Protestant churches consist of a number of smaller denominations, each with its own nuanced set of beliefs and practices. Large similarities across these groups, however, allow social scientists to group them by traditions such as CP and mainline Protestant (Woodberry and Smith 1998).

social class, along with slow divergence in other areas like family size and percent married.<sup>5</sup> Massengill (2008) uses nationally representative data to examine cohort change in CP educational attainment and finds that recent cohorts of CP youth are no less likely than mainline Protestants to graduate high school but still lag behind in college completion.

Other scholars have broken conservative Protestants down into smaller subgroups such as evangelicals, Pentecostals, and fundamentalists and found that the CP gap is largely driven by Pentecostals and fundamentalists, while evangelicals actually have higher educational attainment than some other non-CP groups (Beyerlein 2004, Smith and Faris 2005). This evidence suggests that the CP gap is closing, but such gains can plateau or even decline. Until educational gaps are understood and corrected, it is important to continue monitoring them.

Building on the literature cited above, I address five key questions arising from the previous studies. First, none of the previous studies have discussed the substantive importance of the CP gap. Is it large enough to warrant scholarly attention? I address that question here by answering (1) *How large is the CP gap, and how does it compare to the more well-known (and well-studied) black-white educational gap?* Second, since several studies (e.g. Park and Reimer 2002) indicate that CPs are gaining ground educationally, I ask (2) *How has the CP gap changed over time?* In answering this question I largely replicate the work of Massengill (2008) with a few modifications and additions. Third, I ask (3) *How much of the gap can be explained by sociodemographic factors—such as parents' education?* If the gap is simply a “leftover” from historical inequalities, it is still

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<sup>5</sup> Park and Reimer (2002) used the RELTRAD method of classification (Steensland et al. 2000) and classified black Protestants as a separate religious tradition. They note that black Protestants are the most distinct tradition demographically. I do not use the black Protestant classification in this study and include in chapter 4 a more full description of my assignment of religious traditions.

important but less likely to generate new information about how culture affects inequality.

A fourth important issue surrounds the illegitimacy of examining CPs as group, as Beyerlein (2004) suggests. Thus, I ask (4) Are there certain subsets of conservative Protestants (such as Pentecostals) for whom the gap is significantly larger or smaller? Finally, I move beyond previous conceptions of the CP gap, which measure the gap in terms of years of schooling completed, to a more sensitive analysis of the critical transitions in the schooling process. Thus, (5) At what stage(s) are conservative Protestants “dropping out” of the educational system? Here again I follow the work of Massengill (2008) but add an investigation of the critical transition from high school to college.

#### **DESCRIBING THE GAP**

The General Social Survey (GSS), a national survey of Americans aged 18 and older, examines Americans’ behaviors and opinions in a number of areas (Davis, Smith, and Marsden 2009). It is administered using face-to-face interviews of noninstitutionalized Americans in the 48 contiguous states. Since 1972, it has been conducted annually or biennially in English by the National Opinion Research Center. Spanish interviews were added in 2006. In this study, I use pooled data from the 1973–2008 administrations.<sup>6</sup> With three decades worth of nationally representative data on the educational attainment and childhood religious affiliations of Americans, the GSS is an ideal data set with which to describe the CP gap. First, it allows study of trends in the association between religious affiliation and educational attainment. Second, it includes a large sample of Americans who have aged beyond the traditional years for participating in schooling and have very likely completed their formal educations.

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<sup>6</sup> I omit the 1972 GSS, because it does not contain information on several of the key variables in this study.



## **MEASURES**

### **Educational Attainment Outcome Variables**

The GSS asks respondents to indicate the number of years of schooling they have completed. Respondents may indicate any number from zero years to 20 or more. Respondents are also asked to indicate the highest degree they have completed. They may choose from “less than high school,” “high school diploma or equivalent,” “2-year college degree,” “4-year college degree,” or “graduate degree.” From these two questions, I created one interval-level variable measuring years of schooling completed and several dichotomous-outcome variables tapping various levels of attainment.

#### ***Years of Schooling Completed***

I measure years of schooling completed using an interval-level variable that ranges from eight or fewer years to 20 or more years. Note that I collapsed the 5 percent of respondents who answered that they had completed fewer than eight years of schooling into the “eight or fewer years” category.

#### ***High-school Completion***

From the two aforementioned questions, I created a variable that indicates whether the respondent has completed at least a high school degree (completing high school diploma or equivalent, completing more than 12 years of schooling, or completing any college degree).

#### ***College Attendance***

I measure whether the respondent ever attended college with a dichotomous variable which measures whether the respondent has completed more than 12 years of schooling or attained a post-secondary degree.

### ***Two-year College Degree***

This measure is a dummy variable indicating that the respondent's highest degree completed is from a two-year college.

### ***Four-year College Degree***

This dichotomous measure indicates that the respondent's highest degree completed is from a four-year college or higher.

### ***College Dropout***

To measure a college dropout, I created a dummy variable which indicates that the respondent has completed more than 12 years of education but has not completed any college degree.

## **Predictor Variables**

### ***Religious Tradition at Age 16***

The GSS asks respondents to indicate their religious affiliation when they were 16 years old. Religion at 16 is not a perfect measure of childhood religious affiliation, because it doesn't capture the amount of time the respondent claimed the affiliation during the entire span of traditional schooling years (ages 6–22), but it is a good proxy and has been used in other recent studies on religion and education (e.g., Massengill 2008).

The GSS uses three questions to gather information on the respondent's religious affiliation at age 16: "RELIG," "DENOM," and "OTHER." From these three, I follow the RELTRAD coding scheme (Steensland et al. 2000), with a few exceptions, to sort respondents into major religious traditions. One major departure from RELTRAD is to sort the black Protestant category into either mainline Protestant or CP affiliations, depending on the tradition of the particular denomination and its theological leanings. I

don't use the black Protestant category for two reasons. First, I want to be able to effectively control for race in order to isolate the CP gap from the race gap in education. Note that this is an important departure from Massengill (2008), who examined only white respondents. Second, many of the smaller black Protestant denominations in the RELTRAD classification are actually Pentecostal or charismatic and share much in common with other Pentecostal/charismatic groups normally classified as CP.

In another variation on RELTRAD, I create an explicit category for Latter Day Saints (i.e., Mormons, hereafter "LDS") rather than leaving them in a catch-all "other" category. This allows me to make more explicit comparisons between LDS and CPs. CPs are similar to LDS in several ways. Like CPs, LDS have conservative beliefs about the nature and authority of scripture as well as gender roles and family values. On the other hand, LDS have historically enjoyed more a positive educational culture than have CPs. Therefore, while not the main focus of this study, it can be instructive to compare CPs to LDS when teasing out cultural versus demographic explanations for the CP gap.

Thus my main affiliation categories are *conservative Protestants, mainline Protestants, Catholics, Jewish, LDS, and other religions*. Finally, to answer question four and address Beyerlein's (2004) concern about the legitimacy of the CP category when analyzing education, I break conservative Protestants up into three categories: *Baptists, Pentecostals, and other conservative Protestants*.

### ***Birth Cohort and Birth Decade***

Several researchers have suggested that the CP gap may be closing over time (e.g., Park and Reimer 2002). Thus for some analyses, I split the sample by birth cohort. Following Massengill (2008), I examine three birth cohorts: respondents born before 1940, respondents born 1940–1960, and respondents born from 1960 onward. Going

beyond Massengill's analysis, and to permit a more fine-grained look at trends in the CP gap, I also split respondents into birth decades.

### ***Sex, Race, Age, and Year***

There may be important differences in educational attainment by sex, race, age, and year of survey administration, and these may vary by religious upbringing. Thus in most models, I control for these four variables. "Sex" is a dummy variable that is one if the respondent is female and zero if the respondent is male. The GSS does not have detailed race classifications for most of its survey years, thus I create only three "Race" dummy variables: "African American," "White," and "Other Race." "Age" is an interval-level variable indicating the respondent's age at the time of the survey. Note that respondents under age 25 are excluded from the analytic sample, as they would not have had sufficient time to complete the traditional progression of educational attainment. "Year" is an interval-level variable indicating the year of the survey. For estimates in multivariate analyses, the variable is rescaled with 1973 as year zero.

### ***Parent Education***

Parent education is the key socioeconomic control in this analysis. Because the GSS does not have a direct measure of the respondent's household income at age 16 (only a relative measure asking the respondent to make a crude comparison of their household wealth to others), parent education serves as the chief measure here of socioeconomic status. The GSS asks respondents four questions about their parents' education, years of schooling completed and highest degree achieved for both mother and father. I operationalize parent education as the highest number of school years completed by either parent. For multivariate analysis, I center the measure at 12 years of education (the modal response) so that models are estimated at the center of the distribution. Note

that I experimented with several versions of the parent-education variable and obtained similar substantive results for each kind of measure.

### ***Region and Urbanicity***

The CP gap may be associated with the region and type of community in which the respondent grew up. Some researchers suggest that CPs in the South and in rural areas may have a peculiar subculture especially ambivalent (or even hostile) toward education. The GSS asks respondents about where they lived at age 16, including both region and urbanicity. From these questions, I create a dummy variable indicating residence in the American South<sup>7</sup> at age 16 and a set of dummy variables indicating urbanicity of residence at age 16: urban, rural, and other.

### ***Family Composition***

Because of their more traditional beliefs about family, CPs may be more likely than some other groups to grow up in homes with two biological parents (a family structure associated with higher educational attainment) but also with more siblings (which is associated with lower attainment). Using a question that asks respondents about their family structure at age 16, I create a dummy variable for “growing up with both biological parents.” The GSS asks respondents how many siblings they have, allowing me to create a variable for “family size” (ranging from zero siblings to eight or more).

## **SAMPLE AND WEIGHTING**

Because they haven’t exceeded the traditional college-going years, respondents under age 25 are excluded from analysis. Because the survey design in 1972 does not include several of the key variables, all 1972 respondents are also excluded. Note that I

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<sup>7</sup> The GSS public-use file does not list the specific state of residence at age 16 but groups states in broad regions. This leads to the unfortunate inclusion of Delaware, Maryland, West Virginia, and the District of Columbia in the “Southern” category.

also tested models using only US born respondents (not shown). The results were substantively similar. Before 2006, the GSS was designed to be used with minimal weighting, though weights could be applied to account for household size (the GSS is a survey of households) and two oversamples of African Americans in the 1980s. From 2006 onward, the GSS uses a more complex sampling design, requiring weights to obtain representative results. In multivariate analyses, I apply weights to account for internal sample-design features of the GSS and to balance the previous years with the 2006 and 2008 design. Table 2.1 includes descriptive statistics for the variables used in this study.

Table 2.1: Descriptive Statistics for Full Analytic Sample and Split by Religious Tradition – GSS pooled data 1973-2008

	All	Cons. Prot.	Mainline Prot.	Catholic	LDS	Jewish	Other	No Affil.	Baptist	Pentecostal	Other CP
N	41549	14267 (34%)	10950 (26%)	11748 (29%)	353 (1%)	935 (2%)	1481 (4%)	1815 (4%)	9032 (22%)	962 (2%)	4337 (10%)
<b>Educational Attainment</b>											
Years of Schooling	13.02	12.40	13.33	13.16	13.51	15.25	13.88	13.24	12.18	11.96	12.93
Completed (8-20)	(2.91)	(2.77)	(2.89)	(2.86)	(2.75)	(2.96)	(3.04)	(2.98)	(2.71)	(2.61)	(2.85)
HS Diploma or more	0.79	0.73	0.83	0.81	0.85	0.93	0.86	0.80	0.70	0.69	0.79
College Attendance	0.47	0.39	0.51	0.50	0.56	0.78	0.60	0.50	0.36	0.33	0.46
2-year college degree	0.06	0.05	0.05	0.06	0.07	0.03	0.08	0.06	0.05	0.05	0.05
4-year college degree	0.23	0.15	0.27	0.24	0.25	0.56	0.33	0.26	0.13	0.10	0.21
College Dropout	0.19	0.18	0.18	0.19	0.24	0.18	0.19	0.18	0.18	0.18	0.19
<b>Sex, Race, Age, and Year</b>											
Female	0.56	0.58	0.57	0.55	0.55	0.54	0.52	0.51	0.58	0.59	0.57
White	0.83	0.73	0.90	0.88	0.98	0.99	0.67	0.86	0.66	0.79	0.87
African American	0.13	0.25	0.09	0.04	0.00	0.01	0.11	0.07	0.33	0.17	0.11
Other Race	0.04	0.02	0.01	0.08	0.02	0.01	0.22	0.07	0.01	0.04	0.02
Age [25-89]	47.64	47.84	50.63	45.57	44.91	50.11	44.94	43.24	47.39	45.82	49.30
	(16)	(15.83)	(16.63)	(15.27)	(15.68)	(16.88)	(15.14)	(14.81)	(15.58)	(15.19)	(16.41)
Year [1973-2008]	1990.99	1991.01	1988.98	1991.82	1990.53	1990.52	1994.48	1994.92	1990.26	1992.34	1992.33
	(10.29)	(10.04)	(10.23)	(10.38)	(9.31)	(10.52)	(9.71)	(9.88)	(10.22)	(10.03)	(9.47)
<b>Parent Education [0-20]</b>	11.08	10.42	11.71	10.93	12.12	12.71	11.76	11.80	10.16	9.76	11.09
	(3.87)	(3.57)	(3.66)	(4.13)	(3.65)	(4.52)	(4.32)	(3.75)	(3.56)	(3.55)	(3.52)
<b>Community Context</b>											
South at 16	0.32	0.55	0.28	0.13	0.12	0.12	0.17	0.22	0.67	0.50	0.30
Urban at 16	0.26	0.19	0.20	0.34	0.17	0.68	0.36	0.31	0.19	0.16	0.19
Rural at 16	0.28	0.38	0.31	0.16	0.30	0.02	0.20	0.26	0.39	0.36	0.36
Other Residence at 16	0.46	0.43	0.49	0.50	0.52	0.29	0.44	0.43	0.42	0.47	0.45
<b>Family Structure</b>											
Bio Parents at 16	0.75	0.71	0.78	0.78	0.81	0.84	0.76	0.68	0.69	0.71	0.77
Num. of Siblings	3.67	4.02	3.23	3.81	4.59	2.28	3.58	3.17	4.18	4.45	3.60

Note: For interval level variables, the range is in brackets and the standard deviation in parenthesis.

## RESULTS

The CP gap can be clearly seen on the first row of Table 2.1, as CPs average 12.4 years of schooling completed compared with mainline Protestants' value of 13.34. CPs lag behind all other groups, including LDS, with whom they share many conservative beliefs, and Catholics, with whom they share a history of low socioeconomic status. By comparison, African Americans complete an average of 12.26 years of schooling while whites complete 13.13 (based on the analytic sample). This gives a preliminary answer to the first research question of this study: CPs complete about one year less of schooling compared to other groups, and this gap is roughly similar to the better studied black-white attainment gap.

Table 2.2: Average Years of Schooling Completed by Birth Cohort – GSS pooled data 1973-2008

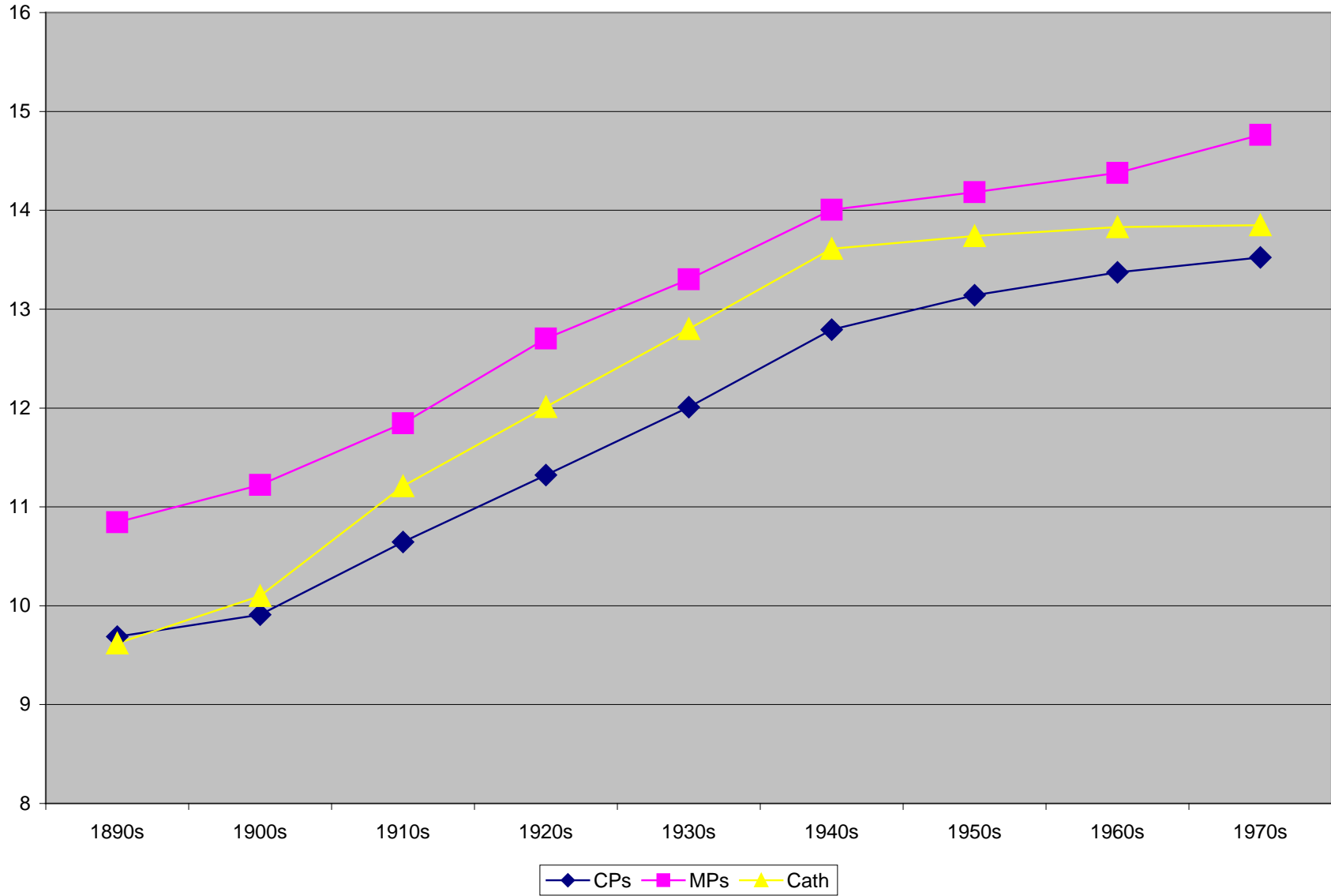
Religious Tradition at Age 16	Years of Schooling Completed		
	Born prior to 1940 N=15899	Born 1940-1959 N=17188	Born 1960 and later N=8462
Jewish	14.14	16.20	16.08
Other traditions	12.63	14.35	14.33
LDS	12.81	13.69	13.88
Mainline Protestant	12.41	14.09	14.48
Non-affiliated	11.93	13.48	13.75
Catholic	11.93	13.67	13.81
Conservative Protestant	11.25	12.97	13.42
CP difference from Mainline Protestant	-1.16***	-1.12***	-1.06***

\*\*\* Mean differences are statistically significant at the  $p < .001$  level



Table 2.2 begins to answer the second research question, which concerns change in the gap over time. CPs have made substantial gains in educational attainment across generations, closing the gap compared to some (LDS), but maintaining distance from others (mainline Protestants and Catholics). This finding matches those of a recent study on CPs and education (Massengill 2008). Figure 2.1 further explores the change over time in the CP gap. Comparing mainline Protestants, conservative Protestants, and Catholics by birth decade (the number of respondents in other religious groups was too small to permit this fine-grained a comparison), it is clear that all three groups have made gains in a pattern consistent with the evolution of educational attainment in the United States. But Catholics and CPs began at lower levels. Also notable is the relationship between CPs and Catholics. Catholics appear to have increased their educational attainment at a faster rate than did CPs in the years following World War II (birth cohorts from the 1910s through the 1930s would compose the bulk of returning soldiers who took advantage of the G.I. Bill), but their gains slowed beginning with the baby boom generation born in the 1940s. For the most recent birth cohorts, Catholics may have actually slipped behind CPs in educational attainment, perhaps due to the large number of working-class Hispanic Catholics immigrating in recent years.

Figure 2.1: Years of Schooling Completed by Birth Decade – GSS pooled data 1973-2008



Before moving to multivariate analysis, I can also offer a preliminary answer to the fourth question: Are there certain subsets of conservative Protestants for whom the gap is larger or smaller? The last three groups on Table 2.1 are such subsets: Baptists, Pentecostals, and other conservative Protestants. Each of the three exhibits low levels of educational attainment, with the “other” category reporting the highest of the three but still lower than any of the non-CP groups. It appears that while there is variation among CP denominations in educational attainment, the measures all still fail to rise above lower-than-average levels. There are two important caveats here. First, earlier work that seeks to clarify educational attainment by religious affiliation uses subcultural identity, rather than denominational measures, to determine religious tradition. Beyerlein (2004) in particular uses this method to distinguish evangelicals from fundamentalists and Pentecostals, finding that persons who identify themselves as evangelical tend to have relatively high levels of educational attainment. My more traditional denominational approach in this study captures a different element of religious affiliation and thus produces a different result. I favor the denominational approach because it is a more proximate measure to congregations, the actual social units of organization for CPs and most other American religious groups. Second, my classification of churches as Pentecostal uses only those groups that are explicitly Pentecostal denominations. The percentage of total respondents falling into the Pentecostal category (4 percent) is a very conservative estimate of the true number of Pentecostals, making the estimate of other conservative Protestants (10 percent) too high. A more precise measure would likely yield different levels of educational attainment for Pentecostals and other CPs, but this redistribution would be unlikely to make much improvement in either group’s average attainment. In summary, the preliminary evidence strongly suggests that CPs lag behind, any way you slice them.

The multivariate analyses offer answers to research question three: How much of the conservative Protestant gap can be explained by other sociodemographic factors? Table 2.3 includes OLS estimates predicting the years of schooling obtained by respondents. Models 1 through 5 are based on the full analytic sample, while model 6 is based only on those respondents born after 1960. The recent cohort model is a check to ensure that the trends from the bivariate results (i.e., that the gap hasn't closed) are consistent in the multivariate results.

Model 1 is a baseline estimate of differences among religious traditions in years of schooling. The intercept for Model 1 is the average years of schooling completed by mainline Protestants. The  $-0.933$  coefficient for CPs is highly significant, corroborating the earlier bivariate estimates that CPs complete about one fewer year of schooling than do mainline Protestants. Catholics also lag behind mainline Protestants, though to a much smaller degree than do CPs. Jews and respondents of other faiths attain slightly more education than do mainline Protestants, while there is no statistical difference between mainline Protestants, LDS, and the nonaffiliated.

Table 2.3: OLS Estimates Predicting Years of Schooling Completed – GSS pooled data 1973-2008

	Full Sample N=41549									
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	se	b	se	b	se	b	se	b	se
<b>Religious Affiliation</b>										
Mainline Prot. (Ref)										
Conservative Prot.	-0.933***	(0.037)	-1.071***	(0.035)	-0.579***	(0.032)	-0.501***	(0.033)	-0.431***	(0.032)
Catholic	-0.167***	(0.039)	-0.591***	(0.037)	-0.122***	(0.034)	-0.267***	(0.034)	-0.157***	(0.034)
LDS	0.186	(0.154)	-0.260	(0.149)	-0.142	(0.133)	-0.157	(0.133)	0.118	(0.133)
Jewish	1.926***	(0.102)	1.727***	(0.095)	1.500***	(0.092)	1.217***	(0.092)	1.132***	(0.090)
Other Affil.	0.547***	(0.087)	0.057	(0.086)	0.217**	(0.078)	0.127	(0.077)	0.182*	(0.075)
No Affil.	-0.096	(0.079)	-0.832***	(0.077)	-0.486***	(0.067)	-0.530***	(0.066)	-0.478***	(0.065)
<b>Sex, Race, Age, Year</b>										
Female			-0.264***	(0.028)	-0.241***	(0.025)	-0.261***	(0.025)	-0.235***	(0.024)
African American			-0.755***	(0.040)	-0.290***	(0.037)	-0.350***	(0.038)	-0.052	(0.038)
Other Race			-0.678***	(0.085)	0.039	(0.071)	-0.005	(0.070)	0.182**	(0.069)
Age			-0.048***	(0.001)	-0.019***	(0.001)	-0.017***	(0.001)	-0.016***	(0.001)
Year			0.067***	(0.001)	0.034***	(0.001)	0.033***	(0.001)	0.032***	(0.001)
<b>Parent Education</b>					0.331***	(0.004)	0.313***	(0.004)	0.282***	(0.004)
<b>Community Context</b>										
South at 16							-0.170***	(0.029)	-0.149***	(0.028)
Urban at 16							0.218***	(0.030)	0.175***	(0.030)
Rural at 16							-0.578***	(0.030)	-0.489***	(0.030)
<b>Family Structure</b>										
Bio Parents at 16									0.411***	(0.029)
Num. of Siblings									-0.178***	(0.005)
Intercept	13.326***	(0.028)	14.835***	(0.055)	13.938***	(0.051)	14.088***	(0.053)	14.247***	(0.058)
R-squared	0.04		0.16		0.31		0.32		0.34	

\*p.<.05 \*\*p.<.01 \*\*\*p.<.001

Table 2.3 (continued)

	Born after 1959 N=8462	
	Model 6	
	b	se
<b>Religious Affiliation</b>		
Mainline Prot. (Ref)		
Conservative Prot.	-0.526***	(0.074)
Catholic	-0.226**	(0.078)
LDS	-0.411	(0.242)
Jewish	0.532*	(0.218)
Other Affil.	0.049	(0.135)
No Affil.	-0.475***	(0.111)
<b>Sex, Race, Age, Year</b>		
Female	0.103*	(0.052)
African American	-0.170*	(0.073)
Other Race	0.286**	(0.099)
Age	0.025***	(0.006)
Year	0.007	(0.005)
<b>Parent Education</b>	0.301***	(0.009)
<b>Community Context</b>		
South at 16	-0.088	(0.059)
Urban at 16	0.283***	(0.059)
Rural at 16	-0.233***	(0.070)
<b>Family Structure</b>		
Bio Parents at 16	0.404***	(0.057)
Num. of Siblings	-0.133***	(0.013)
Intercept	12.909***	(0.181)
R-squared	0.27	

\*p.<.05 \*\*p.<.01 \*\*\*p.<.001

Model 2 of Table 2.3 adds several sociodemographic variables, including sex, race, age, and year. While these variables each have their own explanatory power, they do nothing to attenuate the CP gap. Model 3 adds parent education, which, as expected, has tremendous predictive power. The R-squared for Model 3 is double that of Model 2, meaning parent education alone explains as much variation as the entire set of variables in Model 2. Note that the intercept for Model 3 is the average years of schooling completed for a 25-year-old white male who is a mainline Protestant, was surveyed in 1973, and has parents who completed high school but no college. Model 3 predicts that a conservative Protestant with a similar socioeconomic profile would complete about one-half year less of education. Thus we see that parent educational attainment explains about half of the CP gap.

Region and urbanicity are added in Model 4 of Table 2.3, and family-background variables are added in Model 5. Each of these additions barely chips away at the CP gap, so that in Model 5, with about 34 percent of the total variation in schooling explained, the gap is still about a half-year of schooling. Model 6 is a repeat of the full model but using only those respondents born since 1960. If the CP gap were closing with successive generations, we would expect the conservative Protestant coefficient in Model 6 to trend toward zero. Instead, the coefficient is slightly more negative. With a number of important sociodemographic variables taken into account, CPs still fall a half-year behind mainline Protestants in educational attainment, and they do not appear to be gaining ground in recent cohorts. The more widely known black-white attainment gap is relatively smaller than the CP gap in Model 6 (and insignificant in Model 5), having been largely explained by family-background characteristics (parent education and family structure).

Where in the educational process are conservative Protestants falling behind? Or, to put it another way, where are they dropping out? Figure 2.2 begins to answer this final question. CPs represent the “zero line” in this figure. The first set of columns in Figure 2.2 represents the percentage difference between CPs and other groups of respondents in completing at least a high-school education. The nonaffiliated and Catholics have a lower percentage of members completing at least high school, while the other groups’ percentages are slightly higher. This gives some evidence that the CP gap is at least partially created by high-school dropouts. The next set of columns shows the differences between CPs and other groups in the completion of at least one year of college. The gaps are all statistically significant and much larger here, with every group having a higher percentage of college attendees than CPs do. Finally, the third column displays the percentage gap between CPs and other groups in dropping out of college after the first year. The differences are very small here, which should not be surprising, since all of the other groups have a higher proportion of students who are eligible to drop out. In a preliminary answer to the final research question, the bulk of the gap appears to be driven by CPs’ lower rates of college attendance.



Figure 2.2: Educational Attainment, Percentage Difference from Conservative Protestants – GSS pooled data 1973-2008

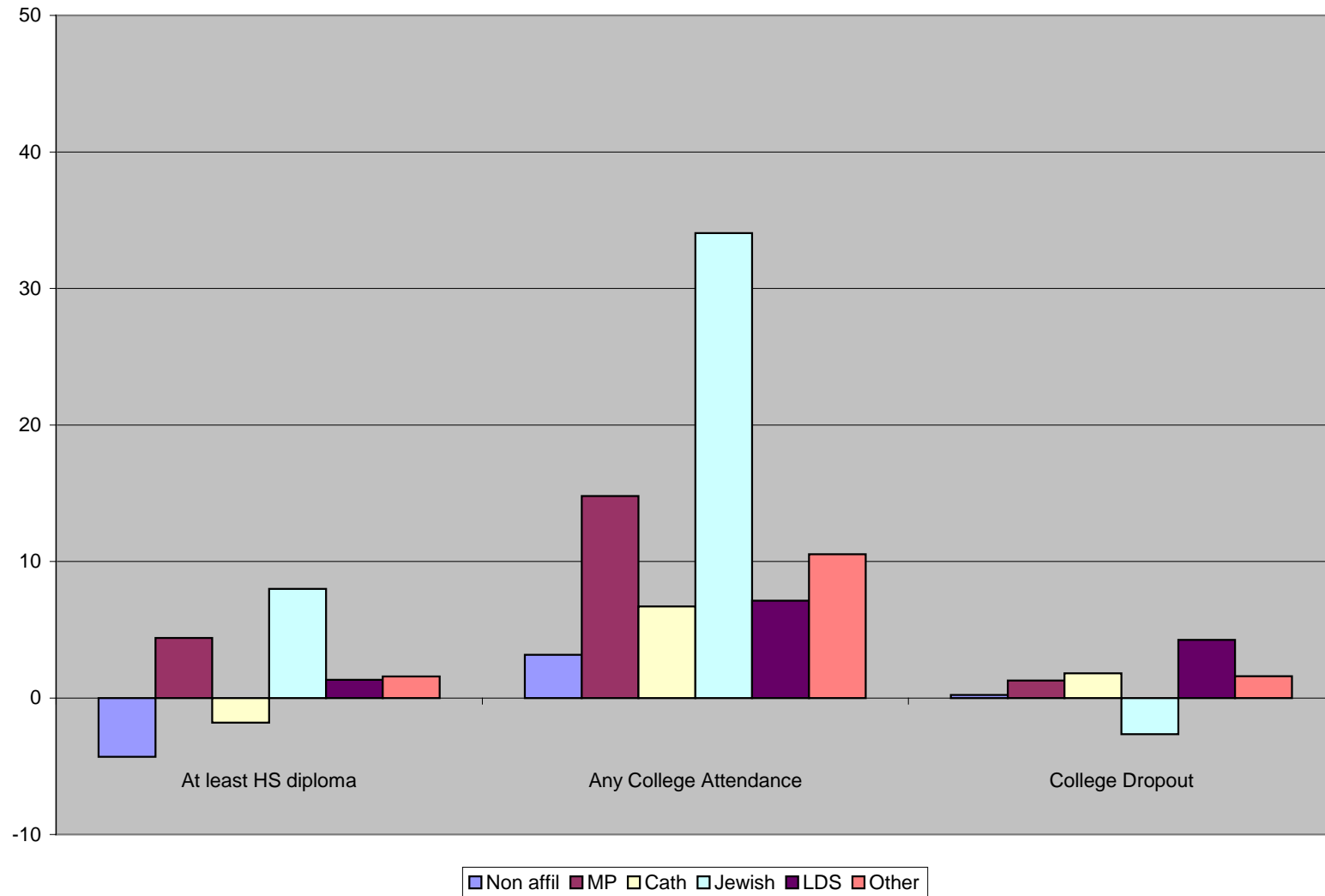


Table 2.4 begins the multivariate analyses examining the “where” of the CP gap. Because earlier analyses showed that the gap has not closed with the most recent birth cohort, all of the models in Table 2.4 use only the subsample of respondents born after 1960. Model 1 displays logistic-regression estimates predicting attainment of at least a high-school diploma. After controlling for covariates used in earlier multivariate models, CPs are significantly less likely to attain at least a high-school diploma, compared to mainline Protestants. Only the nonaffiliated are similarly disadvantaged. Model 2 of Table 2.4 predicts college attendance for the subsample of respondents who graduated HS, and once again, conservative Protestants are behind mainline Protestants. While dropping out of high school does appear to be a problem contributing to CPs’ overall lower levels of attainment, the lower proportion of CPs attending college is not driven by high-school dropout rates. Model 3 examines 2-year college completion with the subsample of high-school graduates. CPs are not less likely than other groups to complete a 2-year degree. Predicting graduation from a 4-year college, Model 4 gives strong evidence that CPs are less likely to complete a 4-year degree, compared to mainline Protestants. This finding corroborates a recent study that gives evidence for a CP gap in college completion (Massengill 2008). Model 5 predicts college dropout among the subsample who ever attended college. Contrary to the bivariate associations shown in Figure 2.2, these multivariate models give evidence that college dropout is indeed a problem for CPs.

In ancillary analyses (not shown), I re-estimated the models from Table 2.4 after subdividing CPs into Baptists, Pentecostals, and other conservative Protestants. In one set of ancillary models I used “other conservative Protestants” as the reference group and, in another, I used “Baptists” as the reference group for religious affiliation. These ancillary analyses showed that, in some cases, “other CPs” experience significantly better

educational outcomes than Baptists and Pentecostals. In particular, “other CPs” were more likely than Baptists or Pentecostals to complete at least a bachelor’s degree and less likely to drop out of college before completing a degree. Regarding comparisons between CPs and other religious groups, however, the patterns shown in Table 2.4 hold, regardless of whether CPs are subdivided into Baptists, Pentecostals, and other conservative Protestants. In other words, in every case in Table 2.4 where all CPs exhibit significantly poorer outcomes than mainline Protestants (the reference group in Table 2.4), other CPs, Baptists, and Pentecostals each also exhibit statistically significant worse outcomes.

I am now able to offer more conclusive answers to the five questions driving the empirical analyses of this study. First, on average, CPs attain about a year less education than do mainline Protestants, and they lag behind all groups to some degree. The CP gap appears to be larger than the black-white educational attainment gap, especially after accounting for family-background variables. Second, while CPs have made educational gains over time, other groups have as well, and CPs are no closer today to matching the attainment levels of mainline Protestants than they were at the turn of the century. Third, about half of the CP gap can be explained by sociodemographic factors, especially CPs’ lower levels of parent education. After accounting for sociodemographic factors, CPs still lag a half-year behind mainline Protestants in years of schooling completed. Fourth, while there is some variation among CP subgroups, with Pentecostals among the most educationally disadvantaged, all three of the studied subgroups still fall behind other religious traditions in educational attainment. Finally, the CP gap is created by higher CP dropout rates at every level of education but primarily by lower rates of college attendance.

Table 2.4: Logistic Regression Predicting Educational Attainment – Respondents Born After 1959 Only

	At least HS diploma 8478		Any College Attendance (HS grads only) 7677		2-year College Completion (HS grads only) 7677		At least 4-year College Degree (HS grads only) 7677		College Dropout (College attendees only) 5241	
	Model 1		Model 2		Model 3		Model 4		Model 5	
	b	se	b	se	b	se	b	se	b	se
<b>Religious Affiliation</b>										
Conservative Prot.	-0.308*	(0.150)	-0.375***	(0.082)	-0.158	(0.118)	-0.576***	(0.083)	0.552***	(0.094)
Catholic	-0.222	(0.155)	-0.132	(0.087)	0.176	(0.119)	-0.192*	(0.082)	0.037	(0.094)
LDS	-0.483	(0.432)	-0.191	(0.255)	0.351	(0.351)	-0.664*	(0.279)	0.496	(0.296)
Jewish	0.687	(0.749)	0.712*	(0.304)	-0.418	(0.405)	0.514*	(0.223)	-0.411	(0.282)
Other Affil.	0.190	(0.256)	-0.185	(0.154)	0.122	(0.193)	-0.095	(0.137)	-0.177	(0.174)
No Affil.	-0.881***	(0.183)	-0.269*	(0.117)	-0.005	(0.173)	-0.259*	(0.120)	0.159	(0.135)
<b>Sex, Race, Age, Year</b>										
Female	0.216*	(0.088)	0.149**	(0.057)	0.102	(0.081)	0.099	(0.058)	-0.081	(0.065)
African American	0.057	(0.129)	-0.136	(0.085)	0.334**	(0.122)	-0.520***	(0.099)	0.203*	(0.103)
Other Race	-0.250	(0.137)	0.679***	(0.124)	-0.066	(0.154)	0.396***	(0.112)	-0.097	(0.124)
Age	0.031**	(0.010)	-0.000	(0.006)	0.009	(0.009)	0.018**	(0.006)	-0.029***	(0.007)
Year	-0.008	(0.009)	0.023***	(0.006)	0.007	(0.008)	0.012*	(0.006)	-0.004	(0.007)
<b>Parent Education</b>										
	0.242***	(0.013)	0.218***	(0.011)	-0.006	(0.013)	0.235***	(0.012)	-0.112***	(0.011)
<b>Community Context</b>										
South at 16	-0.109	(0.103)	-0.034	(0.064)	0.015	(0.094)	-0.047	(0.068)	-0.035	(0.075)
Urban at 16	0.067	(0.107)	0.243***	(0.068)	-0.132	(0.094)	0.291***	(0.065)	-0.137	(0.073)
Rural at 16	-0.104	(0.109)	-0.321***	(0.072)	0.076	(0.109)	-0.188*	(0.081)	-0.078	(0.091)
<b>Family Structure</b>										
Bio Parents at 16	0.510***	(0.091)	0.188**	(0.063)	0.021	(0.092)	0.473***	(0.068)	-0.421***	(0.071)
Num. of Siblings	-0.142***	(0.020)	-0.061***	(0.014)	-0.022	(0.021)	-0.123***	(0.016)	0.094***	(0.017)
Intercept	1.994***	(0.321)	0.072	(0.199)	-2.691***	(0.290)	-1.875***	(0.209)	0.699**	(0.226)

\*p.<.05 \*\*p.<.01 \*\*\*p.<.001

## **DISCUSSION AND CONCLUSION**

In this chapter, I have thoroughly described the CP gap using nationally representative data from the last 30 years. Along the way, I have clarified several questions left incompletely answered by previous work on the CP gap. The CP gap is substantial, relevant, and only partly explained by the sociodemographic controls available in the GSS. I also demonstrated that CPs of all stripes (at least using denominationally based measures) have lower levels of attainment, further legitimizing the CP category in studies of educational attainment and, by extension, the conceptualization of the CP gap. Finally, I show that the most recent cohort of CPs are leaking out of the educational pipeline at nearly every level, but that the CP gap appears to be primarily driven by CPs relatively lower rates of college attendance.

Limitations of this study point to important areas for further research. While the GSS is excellent for examining trends and describing features of the social landscape, longitudinal studies fare better at uncovering causal mechanisms. On another front, one of the more perplexing puzzles associated with the CP gap is why they get less education even though they have higher rates of religious participation. A number of studies have shown that both individual and parental religious participation predicts better educational outcomes, from high-school graduation to college preparation to years of schooling completed (Muller and Ellison 2001, Loury 2004, Stokes 2008). Unfortunately, the GSS does not provide consistent information on religious attendance at age 16. Longitudinal panel studies of youth will provide better opportunities for scholars to discover why CP youth appear to be benefitting less from their religious participation.

In conclusion, CPs acquire less education compared to other religious groups, and descriptive data indicates that this is mostly because they are less likely to attend college, though multivariate analyses show that they are also more likely to drop out of high

school or college. While they have made gains in educational attainment over the past 30 years, they have only just matched the gains made by most other groups, and the size of the CP disadvantage remains virtually unchanged. The gap is partially, but not entirely, explained by CPs' relatively lower levels of parental education. Nearly one-fourth of Americans claim a CP affiliation, and they lag nearly a year behind in educational attainment. This is too large a group, and too big a gap, to ignore.

In the following chapters, I focus my investigation on the CP gap in college attendance, using high quality panel data that overcomes many of the limitations of this study and other previous studies. By examining the transition to college, the “leakiest” part of the education pipeline for CPs, I can uncover specific causal mechanisms and evaluate them in light of the theories previously offered to explain the CP gap. It is to these theories, the causal mechanisms and their relative cognitive depth that I now turn my attention.

## Chapter 3

### Plumbing the Leaky Pipeline: Theories and Mechanisms

I've just demonstrated in Chapter 2 that the CP gap is real. It's significant, and it's persistent. I've also uncovered that the gap is primarily driven by CPs lower rates of college attendance. If we were to picture the educational life course as a pipeline starting with the first moments of education in the home and finally ending at the terminus of a person's formal education, we could say that the "missing length of pipe" between the high-school and college "pipe sections" represents the transition to college. The transition to college comes toward the end of children's developmental process. Substantial previous research has investigated outcomes in earlier stages of development (see Harris and Robinson 2006; Johnson, Crosnoe, and Elder 2011) and the transition to college is partially a function of these earlier processes. This research focuses on the role of factors that are observed while students are in high school and, partially, but not completely, controls for influences which are largely due to earlier development.

Students cannot simply rely on the habits developed in high school to help them make the transition to college. Transitioning to college involves both making preparations during high school and taking the initiative to actually negotiate the college selection and admissions process all the way to matriculation. CPs appear to have a more difficult time with this transition than other religious groups.

What exactly is the association, if any, between the religious culture experienced by today's CP youth and the level to which they aspire to college, prepare for it, and finally, pursue it? What are the proximate *mechanisms* which help explain why more CPs leak out of the educational pipeline without making the transition to college?

## **CHAPTER OUTLINE**

Building on previous studies, I describe in this chapter four theoretical avenues by which CP affiliation may be related to educational attainment: resources; resistance; ambivalence; and demographic characteristics. These four avenues are not mutually exclusive, but they do represent distinct conceptual understandings of the various aspects of CP culture. In my pipeline metaphor, they are the possible avenues of “stress” on the pipeline that can lead to cracks. Demographic characteristics are also potential moderating factors; the educational experience of CPs may be different depending on their race, gender, or provenance. Second, I describe several mechanisms which may link CP affiliation to college attendance. Third, I draw upon recent insights in culture and cognition to show how the mechanisms involved in the CP college-attendance gap can operate at different levels of cognitive depth, an insight which may help guide future work on the CP gap.

### **STRESSES TO THE PIPELINE: FOUR AVENUES OF CP CULTURAL INFLUENCE**

#### **1. Resources**

CP students are more likely to hail from poorer and less well-educated families (Park and Reimer 2002), and this results in a cluster of resource deficiencies which would, on average, leave them underprepared and underfunded compared to their non-CP peers. A resource-based explanation for the CP gap may seem at first to have little to do with CP culture. But relative resource deficiencies between CPs and other religious groups may be due to underlying cultural differences about orientations toward the material world.. CP beliefs and practices themselves may influence accumulations of wealth and its and subsequent intergenerational transfer (as Keister 2003 suggests) *or* low-income persons may be disproportionately attracted to CP religion (the old Weberian argument, see Pyle 2006), or both things may be happening. Thus, socio-economic



explanations for the CP gap may *ultimately* be cultural explanations, but only in a historical sense. It is beyond the scope of this dissertation to clarify the source of CP resource deficiencies. Thus, in the following studies, I conceptualize resource deficiencies primarily as an avenue to be controlled for, in order to isolate the avenues of explanation more likely to deal with current CP culture.

Note that I am conceptualizing resource deficiencies broadly, including not only financial assets but a wide range of explanations offered in previous studies of class and educational attainment. Making the transition to college involves more than simply being able to afford tuition; resource deficiencies are tied to a host of more proximate causal mechanisms, in addition to having a direct, unmediated effect. For instance, recent debate over the black-white education gap asserts that a lack of early preparation among relatively poor black families leads to an accumulating disadvantage for black students (see Harris and Robinson 2007). There is at least some evidence that a similar mechanism may be operating for CPs; CPs exhibit less verbal ability across the life course (Sherkat 2010). Or, since CPs are among the most traditional and conservative religious groups on family issues (Gay, Ellison, and Powers 1996), their youth may have more siblings with whom to share parental investment in school-related activities.

Probably the most important socioeconomic resource here is parental education. If CP parents have lower levels of education on average, then they are likely to pass that disadvantage on to their children. To the degree that the CP gap is an artifact of historic (but not necessarily continuing) antiintellectualism or frontier poverty, then accounting for parent education will explain its cause. In this case, the gap would not be a sustained by the current beliefs, practices, and norms of CP culture; the gap is simply an issue of differential socioeconomic status. Exploring the other specific avenues by which relative resource deficiencies contribute to the CP gap is beyond the scope of this dissertation.

## **2. Resistance**

CP youth may resist certain levels of education because they experience a religious version of “oppositional culture” (Sherkat 2010). The theoretical underpinnings of the classic oppositional-culture argument don’t fit the CP experience (CPs are not a “forced minority”), and oppositional culture arguments may themselves ultimately prove unfounded (see Harris 2006), but the core idea of resisting schooling may have merit for explaining CP educational shortcomings. In one form or another, resistance to schooling linked to CP culture is the dominant explanation of the gap found in the literature. For this reason, I pay special attention to this theoretical avenue, conducting several stringent tests of the resistance theory.

What about CP culture would lead scholars to believe that CPs are resisting educational advancement? First, CPs tend to interpret the Bible as the literal word of God and may question sources of information—such as science or modern literature—that seem to contradict a literal reading of scripture. Second, some CPs have antimaterialist orientations that may lead them to devalue avenues of material advancement, such as education. Third, some CPs are deeply suspicious of the secularizing influence of college life and worry that young adults may be corrupted by the licentious activities popularly associated with it. As such, CP adults may encourage CP teens to only attend (more expensive) CP colleges, or they may discourage CPs from attending college altogether (Darnell and Sherkat 1997). To the degree that CP students internalize these anticollege messages and norms, they may resist college attendance.

If CPs do not want to attend college as much as their non-CP peers do, then we would have evidence of a particularly direct CP resistance to college attendance. I explore this hypothesis in Chapter 5, “The College Aspirations of Conservative-Protestant Youth.”

How else might CPs resist educational attainment? They may put little effort into the day-to-day tasks of schooling, leading them to earn lower GPAs. Similarly, but involving decisions at a more discursive level, CPs may be less likely to put forth the additional effort required to enroll in and pass more difficult, college preparatory high-school courses. Based on the beliefs thought to be at the heart of CP resistance, CPs would be especially likely to avoid upper-level science courses; topics such as evolution, the “Big Bang,” and quantum physics may challenge CP ideas about the divine origins of the universe. I uncover answers to these possibilities in Chapter 6, “The College Preparation of Conservative-Protestant Youth.”

Chapter 7, “The Conservative-Protestant Gap in College Attendance,” examines whether or not CP youth attend college at the same rates as their non-CP peers, with college aspirations and college preparation operationalized as mechanisms which can help explain the CP gap in college attendance.

The resistance argument rests upon the premise that CPs are influenced by antieducational beliefs, practices, and norms that are disseminated in their religious networks. The network hub for most CP activity is the local congregation. CPs attend religious services in their congregations at higher rates compared to most other groups, and regular (weekly or more) attendance is prescribed as an important part of CP religious practice (Woodberry and Smith 1998). Religious attendance can be conceptualized as a measure of *embeddedness in a religious congregation*. Thus to the degree that CP culture contains direct, anticollge resistance beliefs, those youth who are more deeply embedded in CP networks (i.e. attending services more frequently) should be more likely to experience *amplified resistance*. I test this hypothesis in all three of the following empirical studies.

To summarize, the strongest evidence supporting the resistance theory would be found if 1) CPs have significantly lower college aspirations compared with their non-CP peers, 2) CPs have lower GPAs and take less challenging courses (especially lower level science courses) in high school than their non-CP peers, 3) CPs more conservative Bible beliefs help explain their lower college aspirations, preparation, and attendance, and 4) CPs who attend religious services more frequently are also more likely to exhibit the resistance patterns described above.

### **3. Ambivalence**

CP culture is not monolithically antieducational; some CP beliefs and practices promote educational attainment and may be associated with a greater likelihood of college attendance among CPs. Considered together with the resistance elements in CP culture (mentioned above), the pro-educational elements may create a sense of educational ambivalence for CP youth; they are of two minds regarding educational advancement. Ambivalence, by definition, recognizes the validity of some aspects of resistance in CP culture, but it also highlights pro-educational elements and attempts to describe how the two aspects of CP educational culture might relate. Below, I describe some of the pro-educational elements in CP culture and how these might be expected to influence the transition to college for CPs.

Most CPs would subscribe to the belief that individuals should pursue excellence in work and school in order to bring glory to God (Woodberry and Smith 1998). Related to this is the idea that individuals should employ and maximize their “God-given” talents and abilities. Other examples of potentially pro-school beliefs would be religious injunctions to obey civil authorities and to maintain a good reputation (Sherkat and Darnell 1999). The pro-educational beliefs mentioned above are also found in a number of other religious traditions, especially mainline Protestantism and Catholicism, thus their

circulation in CP culture would not be expected to benefit CP youth in the transition to college, compared to other religious youth. They may, however, distinguish CP youth from their nonreligious peers.

Somewhat more distinctive of CP subculture (compared to that of mainline Protestants and American Catholics) is an imperative to transform individuals and/or society along CP lines (Smith and Sikkink 2000). How CPs engage the culture ranges from reactionary resistance to progressive dialogue, but effective engagement often involves maximizing talents, which can, in turn, involve promoting college attendance (Smith and Sikkink 2000). As mentioned earlier some research indicates that those CPs who identify with evangelicalism, a (mostly CP) movement that seeks to influence the wider culture while maintaining distinctive beliefs and practices (called “engaged orthodoxy”), are more likely to attend college than are other CPs and actually attend college at the highest rates of any Christian group (Beyerlein 2004). In this study, I do not directly measure engaged orthodoxy<sup>8</sup> or other pro-educational CP beliefs, but I acknowledge these as important counterpoints to a simplistic resistance argument. From an empirical standpoint, if CPs largely share pro-educational schema with other religious groups but are relatively unique in anticollge beliefs, then CPs would still, on average, be less likely to attend college compared with other religious groups, though, again, they may be advantaged compared to the nonreligious.

Already discussed above as a religious practice that might amplify resistance beliefs, religious attendance is also important in a theory of educational ambivalence. Religious attendance (especially regular attendance) likely cultivates habits of the body

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<sup>8</sup> It is possible with the Add Health data (used in chapters 5, 6, and 7) to retrospectively measure whether respondents were raised in an evangelical, Pentecostal, mainline, or fundamentalist home (similar to Beyerlein’s 2004 study). As mentioned in chapter 2, and explained more fully in chapter 4, I intentionally use the more conventional, denominationally-based, religious traditions measure.

and mind (attention, reading, collective learning experiences, etc.) that translate well into academic environments (Muller and Ellison 2001; Regnerus 2003). Thus, CPs may do better than other religious groups on some educational outcomes, especially those outcomes that are most closely related to disciplined practices, such as earning a good GPA. In this case, the positive effects of CP culture (regular attendance) can help *compensate* for any negative effects of anticollege elements. Note that this compensatory explanation does not posit any qualitative difference between CP religious attendance and the attendance of members of other religious traditions. Attendance “works” because it is a disciplined practice, one especially transposable to school environments, not because of any particular religious content obtained through attendance. Evidence for attendance as compensation would be found if CP deficiencies relative to non-CP religious peers (in college aspirations, preparation, or attendance) were *larger* after accounting for religious attendance (a suppression effect). CP differences from nonreligious peers should be smaller if religious attendance helps compensate for antieducational elements in CP culture.

Another, and very different possibility, is that regular attendance transforms resistance beliefs in ways that render them less educationally harmful. How might this happen? Some pro-college ideas in CP culture may be more cognitively complex and nuanced (e.g., “The world is evil and should be resisted, however, we must engage and redeem it.” vs. the more simple, “The world is evil and should be resisted. Period.”) Consequently, multiple exposures may be required for CP youth to fully assimilate the pro-college ideas. Thus regularly attending youth get more exposures to the complex ideas, and they “take” more fully. Additionally, the disciplined bodily practice of regular attendance may positively affect day-to-day school performance in a way that reciprocally influences which beliefs young CPs enact. For instance, a regularly attending

CP who does well in school might consider educational success an important part of her developing identity; she would be less likely to adopt antieducational beliefs which might threaten that identity and more likely to internalize framings which coherently *integrate* her religious practice and her schooling success. Evidence for such a *transformed resistance* explanation would be if high-attending CP youth were not disadvantaged compared with their high-attending non-CP peers, but low-attending CPs experienced significantly lower levels of college attendance.

One final way in which CP culture may be ambivalent toward educational advancement is if CPs are not actually resistant to schooling, but they value other life pursuits in ways that compete with resources that could be directed toward further schooling. In this way CP ideas of “the good life” include college, but only if it does not interfere with pursuits that are considered more important such as beginning a family sooner or beginning evangelistic work (i.e. becoming a missionary). Early family formation is the best documented such alternative pursuit. In fact, one recent study (Fitzgerald and Glass 2008) claims that early family formation explains the CP gap in years of schooling completed, at least for white CP women (more on race and gender below). If this, *alternative pursuits*, hypothesis is indicative of CP ambivalence then we would expect the CP gap in college attendance to be explained by CPs earlier entry into some alternative pursuit, such as family formation or religious work (such as missions or clergy)<sup>9</sup>. In the following studies, I examine early family formation as an alternative pursuit.

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<sup>9</sup> CPs seeking alternative pursuits may or may not have lower average college aspirations, high-school GPAs, and/or lower levels of high-school course taking compared to non-CP peers. This probably depends on how certain they are of achieving the alternative pursuit. For instance, a CP young woman who desires early family formation may have lower college aspirations only if she is in a serious dating relationship. Otherwise, she may plan on college until a suitable romantic partner is available. I do not test this intriguing possibility here, but it could be tested in future research.

In summary, empirical support for the ambivalence theory would be as follows: First, pro-educational beliefs that CPs *share* with other religious groups should not distinguish CPs from non-CP religious peers, but may advantage CPs relative to nonreligious peers. Second, CP beliefs and practices, especially religious attendance, that are more distinctive of CP culture may help *compensate* for the resistance elements of CP culture. Accounting for these compensatory elements would widen educational gaps with peers from other religious groups, but may close gaps relative to nonreligious peers. Third, it is also possible that practices such as religious attendance may transform resistance elements in a way that renders them harmless. In this case, CPs who regularly attend religious services would not be educationally disadvantaged compared with similarly attending peers from other religious traditions, but low attending CPs would be especially disadvantaged<sup>10</sup>. Fourth, CPs may not actually be resistant to college at all but instead prefer alternative pursuits, such as early family formation. This final ambivalence hypothesis would be supported if CPs lower levels of aspirations, college preparation, or, especially, actual college attendance were explained by their relatively greater participation in some alternative pursuit.

#### **4. Demographic Characteristics**

Finally, a fourth theoretical avenue potentially linking CP affiliation with levels of educational attainment is the sociodemographic characteristics of race, region, and gender. Race is already considered important in investigations of CP educational attainment (Fitzgerald and Glass 2008). CP churches, like all American Protestant

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<sup>10</sup> The three different effects of religious attendance suggested, amplified resistance, compensation, and transformed resistance may vary by congregation. By checking interactions for race and parent's education, I can partially account for such a possibility, at least to the degree that congregational variation is associated with SES or race and that CP congregations are also roughly segregated according to these measured characteristics. Otherwise, without congregational level data, I am unable to test the possibility that the hypothesized effects of attendance may vary across CP congregations.



churches, are largely divided along racial lines (Emerson and Smith 2001).<sup>11</sup> This historical divide has led to African American–CP churches and white-CP churches developing different emphases in response to the needs of their communities. For instance, previous studies have shown that African American–CP churches have more progressive views on gender roles and the need for economic advancement (Woodberry and Smith 1998; Patillo-McCoy 1998). Thus while white and African American CPs may be very similar in doctrine and practices, their youth may encounter different emphases on the various CP messages regarding education.

There is also a growing number of Hispanic CPs, many of whom also experience a segregated worship experience—whether in separate congregations or in separate Spanish-speaking services offered in mixed-race congregations. Some research has indicated that Hispanic CPs are similar to white CPs in that they tend toward traditional gender roles (Hunt 2001), but to the degree that Hispanic CPs experience segregated congregations or worship experiences, they may also encounter different elements of CP culture regarding education. Immigration status may also be an important predictor of attitudes toward college, particularly for Hispanic CPs, some of whom are recent immigrants.

At a minimum, race is an important characteristic for which to control, because African Americans are disproportionately CP, while Hispanics are disproportionately non-CP. It may also be necessary to stratify analyses by race if there is evidence that the educational attainment of CP youth differs importantly by race. Finally, if CP educational attitudes and behaviors differ significantly by race, then we must consider a special case

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<sup>11</sup> Congregations are undoubtedly an important context across which CP youth might be differentially exposed to pro- and anticollge messages. Any observed race differences among CPs might be better understood as congregational differences, though the conflation of race and congregation in conservative Protestantism might make race and congregation effects difficult to untangle. Unfortunately, my data do not allow me to directly examine congregational influences.

of the resistance theory. Namely, that the resistance theory applies only to White CPs. Some previous research has suggested this special, *race stratified resistance* hypothesis (e.g. Fitzgerald and Glass 2008). Because the ambivalence theory expects some antieducational elements may be part of CP culture, race stratified findings may also be characteristic of (White) CP ambivalence.

As for region, CPs are disproportionately from the South. Historically, the South—especially the rural South—has lagged behind other regions in the development of educational infrastructure. Southern secondary schools may be less likely to offer adequate curriculum to prepare students for college. Additionally, some research has shown that southern CPs differ importantly from CPs in other regions (e.g. Ellison, Burr, and McCall 2003). Thus, CPs may be disadvantaged in regard to educational attainment simply because of their provenance.

Gender is also important to consider in studying the CP gap in educational attainment. For instance, because CP congregations are more likely than mainline Protestant and Catholic congregations to promote traditional gender roles, the messages regarding college that CP youth and their parents encounter in their congregations may be gendered (Fitzgerald and Glass 2008). Specifically, if young CP women are encouraged to prepare for domestic roles (such as housewife and stay-at-home mom), then they may see less value in the investment of college. On the other hand, if young CP men are encouraged to become primary breadwinners in an economy normatively populated by two-earner families, then there may be increased pressure for them to attend college. Thus female CP youth may be more exposed to the anticolllege elements of CP culture while their male counterparts are more influenced by its pro-education elements. If CP educational attitudes and practices differ significantly by gender, then once again we are dealing with a special case of the resistance theory, the *gender stratified resistance* theory

(Sherkat and Darnell 1999, Fitzgerald and Glass 2008). This theory predicts evidence of college resistance would be most clear among CP females and perhaps only White CP females. As mentioned earlier when discussing race stratified resistance, the ambivalence theory accounts for some antieducational elements in CP culture and thus, may also be gender stratified.

### **STRESSES AND CRACKS IN THE PIPELINE: MECHANISMS OF INFLUENCE**

As described in this chapter's introduction, I am visualizing the educational life course as a pipeline, one potentially beset with stresses and riddled with cracks that can decrease the probability that a student will make the jump from the "high-school" pipe section to the "college" one.

It's clear that college attendance involves more than a single, simple choice to go to college or not. Several factors can contribute to a student who graduates high school but misses the jump to college, and many of these factors may be culturally influenced. An earlier study suggests that CPs may be inclined toward the kind of rule-following and compliance required for high-school graduation<sup>12</sup> but not toward the additional effort required to get to college (Darnell and Sherkat 1997). Indeed, even for the most gifted or privileged students, getting to college requires some initiative beyond rule-following, and for many students, this initiative must be accompanied by extraordinary effort. The case would be no different for CP students.

Desire to attend college (college aspirations) may translate into the initiative needed to make the jump from high school to college. Earning good grades and taking more challenging courses in high school (college preparation) is evidence of the effort

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<sup>12</sup> In ancillary analyses, I found robust evidence that the recent cohort of CPs analyzed in this study are *also* less likely to graduate high school compared to their non-CP religious peers (see also chapter 2). Because the mechanisms related to high-school dropout are very different from those related to college attendance, I do not explore the issue here but analyze in chapters 5–7 only those students who complete high school.

needed to prepare for college and succeed in the admissions process. Deficiencies in either of these two areas, aspirations or preparation can be like cracks which cause students to lose valuable educational momentum. As discussed above, these two mechanisms also help elucidate which theoretical avenues best explain the link between CP affiliation and college attendance. Below, using new insights from the study of culture and cognition, I show how evaluating the level of cognition involved in these two mechanisms can gain additional purchase on how CP culture may be a causal force in the CP gap in college attendance.

#### **ABOUT CULTURE AND COGNITION**

Some cultural theorists have noted the importance of culture operating at a “deep,” *subversive* level of cognition, as well as at the “surface,” *discursive* level. Bourdieu (1984) famously articulated an earlier version of this idea in describing how different cultural tastes (notably visceral and difficult to articulate in origin) work to distinguish the social classes. Indeed, culture may be most influential when it is subversive, conditioning day-to-day, snap decisions and habitual behaviors (Vaisey 2009). Thus while CP students may draw upon certain cultural narratives (e.g., “Good kids should want to attend college”) when faced with situations that demand a thoughtful, discursive response (e.g., “Do you want to attend college?”), they may access very different cultural schema when faced with more short-term situations or questions, such as whether or not to study for a test or sign up for a more difficult course.

Applying subversive cognition to the resistance hypothesis, a CP student may not consciously resist college but instead make day-to-day choices to spend time and energy on pursuits other than preparing for college. CP students who are continually exposed to negative messages about higher education—such as the presentation of college as a dangerous place where one’s faith is put at risk—may develop a visceral apathy about

college and be less likely to expend the additional effort necessary to prepare for, apply for, and pay for college. Alternatively, CP students who internalize schema that are antimaterialistic or who are encouraged to prioritize family formation over educational advancement may not “feel” inclined to invest day-to-day energies in securing a college-bound future.

The cognitive level at which a mechanism operates—anywhere from fully discursive to fully subversive—could be called its “cognitive depth.” Mechanisms such as GPA (part of preparation) likely involve habituated actions, with students rarely or never discursively linking them to their own religious identity. For example, a CP student probably does not think to herself, “College is a morally dangerous place, so I’ll blow off this upcoming test” or “I think I’ll attend church today, because I’m likely to build habits which will get me better grades.” Other mechanisms, like educational aspirations or course taking, tend to involve more discursive cognitive activity. A student has to think, however briefly, about how much he or she wants to attend college before answering a survey question on college aspirations or signing up for a college-preparatory-level course.

Unfortunately, some of the most clearly cognitively discursive activities on the way to college—such as preparing for and taking SATs or ACTs, visiting and evaluating potential schools, completing college applications, or applying for financial aid—remain unmeasured in this study. Nonetheless, consideration of the cognitive depth of the mechanisms that prove significant in this study will help gain additional purchase on how CP culture may work to influence CP college-going. Such consideration will not prove the causality of CP culture but it can be especially informative for future studies, especially qualitative studies that probe how students make decisions or investigate the role of culture in producing or reproducing inequality.

## MEASURING THE STRESSES AND CRACKS

After investigating all high school students' college aspirations in Chapter 5, Chapters 6 and 7 examine only those students who have made it to the missing section of pipe—that is, high-school graduates. With or without leaks, these students' momentum has been sufficient to at least carry them up to the transition point. Much has already happened along their educational journey that will make it more or less difficult for them to go on to college. The more stresses on the pipeline (the various predictors involved in the four theoretical avenues of cultural influence) along the way, the more likely that cracks will develop. The more cracks in the pipeline, the less likely that a student will make the jump from high school to college.

Chapter 4 explains the data and methods for this study. I use data from the first four waves of the National Longitudinal Study of Adolescent Health (Add Health), along with the companion Adolescent Health and Academic Achievement (AHAA) High School Transcript study. A great advantage of using the Add Health Wave IV sample is that it is possible to measure (using data from the previous waves) various academic and social characteristics of students *during* their academic career. This allows greater precision in determining how relatively important various mechanisms are to subsequent college attendance. Using the multiple waves of data also allows a proper ordering of mechanisms in a way that retrospective studies of adults cannot match.

In Chapters 5–7, I examine the associations between CP affiliation and college aspirations (Chapter 5), college preparations (Chapter 6), and college attendance (Chapter 7). Specifically, I discuss how my findings illuminate both the avenues of influence of CP culture (resources; resistance; ambivalence; and demographic characteristics) and the level of cognition at which CP culture may be operating.

## **Chapter 4**

### **Data, Sample, and Measures**

The data for this study are from Waves I and IV of the National Longitudinal Study of Adolescent Health (Add Health) and the Adolescent Health and Academic Achievement (AHAA) study which links high school transcript information to Add Health survey data. Add Health and AHAA are funded by the National Institute of Child Health and Development (NICHD) and 17 other federal agencies. Wave I was conducted in 1994 and 1995, including in-depth interviews with 20,745 American adolescents in grades 7–12. Adolescents' parents, siblings, friends, romantic partners, fellow students, and school administrators were also surveyed. AHAA began collecting high school transcripts in 2001. Wave IV of Add Health was conducted in 2007 and 2008 as a follow up with respondents from the original nationally representative sample (Wave I). Approximately 80% of the original Wave I sample was interviewed for Wave IV. Add Health and AHAA are particularly well suited to address the research questions of this study because of the variety of religion measures gathered from interviews while the respondents were still in secondary school, the accuracy of predictors taken from transcript data after the respondents completed secondary school, and the outcome (college attendance) from Wave IV, after all the respondents have surpassed traditional college-going ages. More information about Add Health is available at [www.cpc.unc.edu/addhealth](http://www.cpc.unc.edu/addhealth). More information on AHAA is available at [www.laits.utexas.edu/ahaa](http://www.laits.utexas.edu/ahaa).

Chapter 5 uses data only from Wave I. After excluding respondents whose parents did not complete the parent interview and using only respondents with valid sampling weights, the final analytic sample is 15,023. See Table 5.1 in chapter 5 for descriptive

statistics. Chapters 6 and 7 use data from Waves I and IV, along with the AHAA transcript data. Only high school graduates, respondents whose parents completed the Wave I interview, and respondents with valid sampling weights were included in the analytic sample of 9,567. See Tables 6.1 and 7.1 in Chapters 6 and 7, respectively, for descriptive statistics.

Table 4.3 presents a brief comparison of selected means across possible subsamples and weighting configurations. The pattern of mean self-reported grades at Wave I indicates the weighted sample is biased toward students with higher grades. Additionally, the decision to retain only high school graduates for the analyses in Chapters 6 and 7 reduces the proportion of CPs in the analytical sample. Based on the findings from Chapter 2, that CPs are more likely to drop out of high school, this is not surprising.

## **MEASURES**

### **Primary Predictor of Interest: Religious Affiliation**

My chief interest is in how conservative Protestants differ from other religious (and non-religious) traditions in regards to their educational attainment, therefore I create a dichotomous variable for conservative Protestants. Because the non affiliated are statistically and substantively different from other religious groups, I also create a dichotomous variable for them. This leaves the reference category for religious affiliation as all other religious groups, a heterogeneous group as it pertains to religious belief and practice, but fairly uniform, on the aggregate, in regards to college attendance<sup>13</sup>. This

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<sup>13</sup> There is surprisingly little variation among major US religious traditions in regards to college attendance. Catholics, mainline Protestants, Latter Day Saints, and members of other religious faiths (examined as a catch all, “other” group because of the small number of adherents available in nationally representative surveys) all attend college at similar rates. As noted above, conservative Protestants and the non religious are distinct in that they have relatively lower levels of college attendance.



strategy for measuring religious affiliation has been used in recent studies of the CP education gap (Glass and Jacobs 2005, Fitzgerald and Glass 2008). The descriptive analysis in Chapter 2 also supports comparing CPs to all other religious groups (see Table 2.2 of Chapter 2).

For the analyses in Chapters 5-7, I use a modified form of the RELTRAD coding scheme to assign religious denominations to conservative Protestant or other (Steensland et al. 2000). The primary difference from RELTRAD is that I move some Black Protestants into the conservative Protestant category, depending on the religious beliefs of the particular Black Protestant denomination. This allows me to prevent potential collinearity issues with controls for race. Preserving race as an analytical category is more important to this analysis than any advantages which would be gained by using the Black Protestant category. Note that my inclusion of traditionally Black denominations like AME in the CP category has to do with particularly *religious* beliefs (as officially stated by the denominations) and not the denominations' traditions concerning education or public policy (which Steensland et al. (2000) rightly point out are divergent by race, even when religious beliefs are uniformly conservative). In ancillary analyses (not shown), I replicated the analyses using the conventional RELTRAD coding scheme (i.e. including the Black Protestants category) and the results were substantively very similar. Table 4.1 lists the specific denominations that I use to create the CP category.

In Chapter 2, I demonstrated that subdividing CPs into smaller denominational groupings (Baptist, Pentecostal, other CP) does not reveal significant heterogeneity among CPs regarding educational attainment. As briefly discussed in Chapter 2, some scholars (e.g. Beyerlein 2004) have shown that using measures of self-identification with religious movements, rather than religious denomination/tradition, can be useful in disaggregating Protestants in regard to educational attainment. In particular, those

Protestants who self-identify as evangelicals have the highest educational attainment among Christian groups while Pentecostals and fundamentalists have the lowest attainment among all religious groups (Beyerlein 2004).

While I agree that self-identification with religious movements can be a useful measure, especially in that it tells us about the educational location of certain cultural affinity clusters within Protestantism, I prefer the conventional denominational-based method of disaggregating Protestants because it is closer to the primary unit of social organization, the congregation. Moreover, many Protestants do not recognize some of the self-identification labels used by scholars and it is likely that only the better educated Protestants are aware of such distinctions, particularly “evangelical.” In ancillary analyses (not shown), I used Add Health Wave III to investigate the associations of Protestant self-identification measures parallel to those used by Beyerlein<sup>14</sup> with my conventional religious tradition measures and college going. Many respondents simply did not answer the self-identification question. Among those who did respond, a strong minority of those who indicated they were raised evangelicals had claimed a mainline (*not* CP) affiliation at Wave I. Similar to Beyerlein’s 2004 findings, self-identified evangelicals did have very high rates of college attendance, while Pentecostals and fundamentalists had relatively low rates. These ancillary findings support my usage of conventional denominational-based measures of religious affiliation.

Finally, I recognize that CP affiliation is not a direct measure of CP culture; no such measure is available. Affiliation, at a minimum, represents identification with a group of people or a cluster of ideas. Respondents who indicated they were affiliated with a certain religious denomination are saying “I associate with *that* (group of people, set of

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<sup>14</sup> In Wave III respondents were asked if they were raised “evangelical,” “Pentecostal,” “fundamentalist,” or “mainline.”

ideas, tradition) more strongly than any of the others on this list.” While for some this may indicate a mild or sentimental association, for others it is an important part of their religious identity. Thus, I consider CP affiliation the best available proxy for identification with and exposure to CP culture.

## **OUTCOMES**

### ***College Aspirations***

The outcome variable for Chapter 5 captures adolescents’ hopes to attend college. Add Health interviewers asked students, “On a scale of 1 to 5, where 1 is low and 5 is high, how much do you want to go to college?” The variable is highly skewed, with 70% of respondents indicating a “5,” a high desire to attend college. In multivariate analyses, use of the original scaled variable is improper for ordered logistic regression because it fails the proportional odds requirement. Thus, for multivariate analyses I create a dichotomous variable indicating whether or not the respondent indicated the highest desire to attend college. Preliminary analysis (not shown) using multinomial logistic regression indicated that the significant variation in college aspirations (with religious affiliation as the primary predictor of interest) is indeed between those who give the highest response and those who indicate less enthusiasm for attending college.

### ***High-school Coursework***

One of two outcomes tested in Chapter 6, this variable describes respondents’ coursework in high school and is taken from the AHAA transcript data. Because there is no nationally recognized curriculum of coursework considered “college qualified,” and because there is a broad spectrum of admissions standards among American colleges and universities, I follow Shettle and colleagues (2007) in classifying students’ coursework into four categories: completion of less than standard, standard, mid-level, or rigorous

curriculum. Table 4.2 describes the courses I used to classify each student. Note that I only used courses for which the student received credit. Because my preliminary analyses showed few differences between students who completed the standard or less than standard set of courses, I collapsed these two categories. In multivariate analyses, use of the 3-category variable is improper for ordered logistic regression because it fails the proportional odds requirement. Preliminary analysis (not shown) using multinomial logistic regression indicated that the significant variation in course taking (with religious affiliation as the primary predictor of interest) is between those who completed the mid-level curriculum or higher and those who did not. Thus, for multivariate analyses I create a dichotomous variable indicating whether or not the respondent completed mid-level curriculum or higher.

### ***Cumulative GPA***

Cumulative high school GPA is the second outcome examined in Chapter 6. It is coded directly from the high school transcript and standardized on a 4.0 scale. The variable is approximately normally distributed and suitable for OLS regression.

### ***College Attendance***

Add Health Wave IV includes a created variable measuring whether or not respondents say they have ever attended college. I use this variable as the outcome in Chapter 7. Unfortunately Wave IV does not include a complete education history of respondents; start dates at institutions of higher learning are regrettably absent from the data. Thus, in this study I am able neither to conduct analyses about the timing of college attendance nor to create patterns reflecting the movement of respondents into and through post-secondary schooling.

## **MECHANISMS AND CONTROLS**

### ***Biblical Inerrantism***

Add Health asks respondents, “Do you agree or disagree that the sacred scriptures of your religion are the word of God and are completely without mistakes?” This question is clearly biased toward text-based Western religions and it also fails to capture more subtle distinctions about how sacred scriptures are understood. While not as useful as a measure of biblical literalism would be in sorting out particular educationally relevant beliefs, this dichotomous variable is the best available in Wave I of Add Health and may serve to predict some of the variation in religious beliefs associated with college going.

### ***Religious Attendance***

Add Health asks respondents to indicate how often they have attended religious services in the past year using a four-point scale with the highest response category being “weekly or more” and the lowest being “never.” When modeling attendance as an explanatory variable I retain the four-point scale. When modeling attendance as a proxy for embeddedness in a congregational context, I use two dummy variables, one for frequent attendees (weekly or more) and one for infrequent attendees (less than weekly). These two dummy variables are combined with the adolescent’s affiliation to create four groups: high-attending CPs, low-attending CPs, high-attending other affiliations, low-attending other affiliations, and the non affiliated.

### ***Expectations for Early Marriage***

Respondents are asked to indicate the chances that they will be married by age 25, with 1 being “almost no chance” and 5 being “almost certain.” I retain the five point scale to measure certainty of early marriage. Note that while marriage by 25 is statistically

early (see Uecker and Stokes 2008), it may not be considered early by many adolescent respondents for whom 25 seems like an age in the distant future. Nevertheless, this variable gives some purchase on when marriage fits into the “good life” script of adolescent respondents and may be helpful in prospectively testing a mechanism that has been implicated in CPs lower attainment (Fitzgerald and Glass 2008). This variable is used in Chapters 5 and 6.

### ***Early Marriage and Pregnancy***

Early marriage has been implicated in CPs lower attainment (Fitzgerald and Glass 2008) and early pregnancies can certainly disrupt plans for college attendance. Wave IV collected a complete history of marriages and pregnancies for respondents. Using the information from the histories, I created measures indicating whether the respondent had ever married or ever had a pregnancy (or got their partner pregnant) by age 21 or younger. Marriage or pregnancy by 21 is not only statistically “early” for high school graduates (see Uecker and Stokes 2008), it is before the traditional age for completion of college. Thus, it should capture any disruptions in plans to attend college created by family formation, even for students who do not enter college directly after high school graduation. Note that these measures are superior to those used in an earlier study citing early family formation as a primary cause of the CP gap (Fitzgerald and Glass 2008). These variables are used in Chapter 7.

### ***Family Resources and Structure***

Parent education and income, along with family structure all serve as my primary measures of resources. I incorporate two variables tapping family socio-economic background, including the parent’s report of family income and highest education level of

either parent as reported by the respondent parent. I also include measures of family structure at Wave I and number of siblings.

### *Self-reported Grades*

I use the student's self-reported grade in the most recent math class and in the most recent English class to tap school-related skills. For these measures 4 represents an "A," while 1 is a "D or lower." Math and English grades are correlated, but not highly so (less than .5), so they likely are each capturing distinct sets of skills and interests. This variable is used only in Chapter 5. I use self-reported grades, rather than AHAA transcript grades, in the Chapter 5 analysis for two reasons. First, Chapter 5 is essentially a cross-sectional study using Wave I data only. Thus, using the AHAA grades would drastically reduce my sample size (by about 6000 respondents). Second, self-reported grades reflect the student's own perception of their academic progress, and it is likely their perception that matters most for how they adjust their aspirations.

### *Verbal Aptitude*

Add Health administers the Peabody Picture Vocabulary Test (PVT) to its respondents as a measure of verbal ability. I use the score provided by Add Health as a measure of verbal aptitude.

### *Other Predictors*

I also include controls for the student's grade level at Wave I, gender, race, immigration status, and residence in the South at Wave I.

## **ANALYTIC CONSIDERATIONS**

I account for missing values using the `ice` set of commands in Stata to perform multiple imputations for missing data. Approximately 15% of the cases had at least one missing value, the majority of these coming from missing data on the measure of parental

income. In all multivariate analyses I employ logistic regression using the Stata `mim` (for analyzing multiply imputed data) and `svy` (for analyzing surveys with complex designs) commands, which allow me to compensate for the complex survey design of Add Health and apply the appropriate weights to deliver representative estimates. In addition to odds ratios, I also display the average marginal effect (AME) using Stata's `margeff` (Bartus 2005) command. The AME is an accurate and intuitive statistic for comparing effects across models when using logistic regression (see Mood 2010). Finally, in Chapter 7, to determine the relative explanatory power of the variables I model as mechanisms, I use Stata's `ldecomp` (Buis 2010) command to decompose logit coefficients.

### **MODELING STRATEGY**

With only slight variations due to the nature of the outcome variable, my modeling strategy is consistent across Chapters 5-7. I begin with bivariate comparisons, assessing differences between CPs and non-CPs in the outcome variables and predictors of interest. In multivariate analyses, I start with: (1) a model including only religious affiliation to establish a baseline comparison between CPs and non-CP religious peers (the reference category). Comparisons between CPs and the nonaffiliated are indicated in the text where they are substantively interesting. Next, I add demographic variables and other controls to specify observed CP differences, net of any differential compositional factors among the three religious affiliations. Third, I account for family resources and structure, which should explain most CP differences anticipated by the resource deficiency theory. Having accounted for socio-economic differences, I next begin to control for education-related mechanisms, beginning with verbal ability. As noted in Chapter 3, verbal ability may be closely linked to resource deficiencies, especially verbal deficits that develop early and accumulate over the life course. Other education-related mechanisms include self-reported grades (Chapter 5 only), college aspirations (Chapters



6 and 7), high school course taking (Chapter 7 only), and high school GPA (Chapter 7 only). Next, I include measures related directly to religious beliefs and practices, specifically Bible beliefs and religious attendance. Including these variables so “late” in the models is a stringent test of my two most distinctive measures of CP culture. Whatever explanatory power they contribute, after so much else has been accounted for, would render strong evidence for direct cultural influence. Finally, I include the “alternative pursuit” of early family formation. If CPs prioritize early family formation over college attendance, then these variables should help explain CP differences from non-CP peers.

Table 4.1: List of Add Health Religious Denominations Classified as Conservative Protestant

Using Variable H1RE1 From Add Health Wave I

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Adventist

AME, AME Zion, CME

Assemblies of God

Baptist

Holiness

Pentecostal

Other Protestant

Table 4.2: Curriculum Configurations

	<b>Standard</b>	<b>Midlevel</b>	<b>Rigorous</b>
Mathematics	3 Earned Credits	Must include geometry and algebra I or II	Must include precalculus or higher
Science	3 Earned Credits	Must include <i>at least two</i> of biology, chemistry, and physics	Must include <i>all three</i> : biology, chemistry, and physics
Foreign Language	0 Earned Credits	1 Earned Credit	3 Earned Credits
English	4 Earned Credits for all levels		
Social Studies	3 Earned Credits for all levels		

Table reproduced from: Shettle, C., Roey, S., Mordica, J., Perkins, R., Nord, C., Teodorovic, J., Brown, J., Lyons, M., Averett, C., Kastberg, D. (2007). *The Nation's Report Card: America's High School Graduates* (NCES 2007-467). U.S. Department of Education, National Center for Education Statistics. Washington D.C.: U.S. Government Printing Office.

Table 4.3: Attrition Analysis – Means on Selected Variables Compared Across Subsamples (Add Health/AHAA)

	<b>Full Sample at Wave I</b>	<b>Students with no Transcript Weight</b>	<b>HS Grads with no Transcript Weight</b>	<b>HS Dropouts with a Transcript Weight</b>	<b>Analytic Sample: HS Grads with Transcript Weight</b>
<i>Self-reported Math GPA at Wave I</i>	2.69	2.58	2.61	2.26	2.75
<i>Self-reported English GPA at Wave I</i>	2.83	2.73	2.81	2.29	2.95
<i>Conservative Protestant at Wave I</i>	0.31	0.31	0.31	0.37	0.30
<i>No religion at Wave I</i>	0.13	0.16	0.14	0.18	0.13
<i>Any other religious affiliation at Wave I</i>	0.56	0.53	0.55	0.45	0.57

## Chapter 5

### The College Aspirations of Conservative-Protestant Youth

We saw in Chapter 2 that the CP gap appears to be largely driven by lower rates of college attendance among CPs. Chapter 3 introduced four theoretical avenues by which CP material resources and/or cultural beliefs might hinder CP students from making the transition to college. In this chapter I begin my investigation of the CP gap in college attendance by asking simply, *do CP youth want to attend college as much as their non-CP peers?*

It is not clear from previous literature whether we should expect CPs to actually have relatively lower college aspirations. Each of the four theoretical avenues presented in Chapter 3 suggest different hypotheses concerning CPs relative college aspirations. The resource deficiencies avenue is essentially agnostic about CP college aspirations. If relatively poorer youth have lower aspirations then the resource deficit avenue would predict CPs to have relatively lower aspirations than their more affluent non-CP peers, but these differences would be explained by accounting for family resources. At least one recent study argues that poor youth do indeed have lower college aspirations, even when accounting simultaneously for their (realistically) lower college expectations (Vaisey 2010).

The resistance avenue offers the most forceful prediction of college aspirations. If CP youth are exposed to antieducational messages in their congregations, then we would expect CP youth to have lower average college aspirations than their non-CP peers. The resistance theory would be further supported if those CPs who are most embedded in CP culture, those who attend religious services most frequently, have the lowest college expectations, on average.

If CPs are not resistant, but ambivalent about higher education, then they might have similar expectations to their non-CP peers (i.e., they want to attend college just as much, but something else, further down the pipeline, is deterring them). An alternative possibility stemming from the ambivalence avenue is that CPs do have lower average aspirations, and these could be due to resistance elements of CP beliefs or they may be explained by their desire to form families at earlier ages; they may want to attend college but only if it doesn't interfere with an alternative life pursuit which they value more highly than college. The ambivalence theory would also anticipate that religious attendance either compensates for or transforms antieducational beliefs such that higher attending CPs would have aspirations closer to or on par with those of their non-CP peers.

Demographic characteristics may also help explain, or modify, the association between CP affiliation and college aspirations in at least two important ways. First, African Americans generally have higher college aspirations, on average, than Whites. Because CPs are disproportionately African American compared to the racial composition of other religious groups, CPs may actually have higher average college aspirations, which are subsequently explained after accounting for race. Second, because CP congregations are largely segregated by race and because CPs tend to espouse traditional gender roles, CPs' relative college aspirations may vary importantly across race *and* gender. Some previous studies suggest resistance or ambivalence toward attending college might be found only among White CPs, or only White CP females (Fitzgerald and Glass 2008).

Finally, I return to the concepts of cognitive depth discussed in Chapter 3. If CP youth say that they want to attend college at equal levels as do youth from other religious groups, but they ultimately do *not* attend (as chapter 2 suggests), then it is unlikely that

CP culture engenders an overt (discursive) resistance to college among adherents. If on the other hand, CP youth express less desire to attend college than do youth from other religious groups, this is more direct evidence of a discursive, articulated resistance.

Below, I use nationally representative data from Wave I of Add Health (see Chapter 4 for information on sample, measures, and modeling strategy) to examine how CP youths' college aspirations compare to those of their non-CP peers. Note that all of the variables examined in this study were measured when youth were still in secondary school (grades 7 – 12).

## **RESULTS**

Table 5.1 displays descriptive statistics for the main analytical variables by religious tradition. Note that CPs average aspirations are significantly different from their non-CP peers, though the substantive difference is small. However, about 5% fewer CPs indicated the highest level of desire to attend college, again a significant difference from non-CP religious peers. CPs are significantly more likely to aspire to college than their nonaffiliated counterparts. Not surprisingly, CP youth attend religious services more frequently and are much more likely to view the Bible as the inerrant word of God. CP youth are not more likely to say they expect to be married by age 25. As expected, CP youth come from families who have less education and lower incomes, on average. CP adolescents also report slightly lower grades and score lower in verbal aptitude. Overall, bivariate comparisons do indicate that CP youth may be less interested in attending college than youth from other religious groups, but they exhibit higher college aspirations than nonaffiliated youth.

Table 5.1: Weighted Means and Standard Errors for Analytic Variables – Add Health Wave I (N=15,023)

	Full Analytic Sample	
	Mean	S.E.
College Aspirations (1-5)	4.43	0.03
Highest Aspirations (answered “5”)	0.70	0.01
Female	0.39	0.01
African American	0.15	0.02
Hispanic	0.12	0.02
Asian American	0.03	0.01
White	0.68	0.03
Other race	0.03	0.00
Raised in the South	0.37	0.02
Grade level	9.34	0.12
Age	15.33	0.12
Non traditional family	0.45	0.01
Neither parent HS grad	0.05	0.01
Parent(s) HS grad only	0.58	0.01
Parent(s) with college degree	0.31	0.02
Parental income / 10,000	4.62	0.16
Verbal Ability (PVT)	101.46	0.61
Self-reported Math grades	2.69	0.02
Self-reported English grades	2.83	0.02
Biblical Inerrantist	0.63	0.01
Religious Attendance	1.68	0.03
Expect to Marry before Age 25 (1-5)	3.24	0.02

Means in bold for no affiliation and other religious affiliations differ significantly from corresponding CP mean at .05 level or better.

Table 5.1 (continued)

	Conservative Protestant N=4,604 (31%)		Other Affiliation N=8,427 (56%)		No Affiliation N=1,992 (13%)	
	Mean	S.E.	Mean	S.E.	Mean	S.E.
College Aspirations (1-5)	4.42	0.03	<b>4.51</b>	0.03	<b>4.13</b>	0.05
Highest Aspirations (answered "5")	0.69	0.01	<b>0.74</b>	0.01	<b>0.57</b>	0.02
Female	0.40	0.01	0.39	0.01	<b>0.35</b>	0.01
African American	0.30	0.04	<b>0.07</b>	0.01	<b>0.14</b>	0.03
Hispanic	0.05	0.01	<b>0.16</b>	0.02	<b>0.09</b>	0.01
Asian American	0.01	0.00	<b>0.05</b>	0.01	<b>0.03</b>	0.01
White	0.62	0.04	<b>0.70</b>	0.03	<b>0.71</b>	0.03
Other race	0.03	0.00	0.02	0.00	0.04	0.01
Raised in the South	0.61	0.03	<b>0.27</b>	0.02	<b>0.26</b>	0.02
Grade level	9.28	0.15	9.36	0.12	9.41	0.15
Age	15.31	0.15	15.30	0.12	15.47	0.15
Non traditional family	0.50	0.02	<b>0.39</b>	0.01	<b>0.57</b>	0.02
Neither parent HS grad	0.05	0.01	0.05	0.01	0.07	0.01
Parent(s) HS grad only	0.63	0.02	<b>0.54</b>	0.02	0.60	0.02
Parent(s) with college degree	0.24	0.02	<b>0.36</b>	0.02	0.24	0.02
Parental income / 10,000	3.81	0.12	<b>5.22</b>	0.21	4.10	0.21
Verbal Ability (PVT)	99.49	0.61	<b>103.01</b>	0.65	99.82	1.07
Self-reported Math grades	2.62	0.03	<b>2.76</b>	0.03	2.59	0.04
Self-reported English grades	2.76	0.03	<b>2.91</b>	0.03	<b>2.63</b>	0.04
Biblical Inerrantist	0.83	0.01	<b>0.68</b>	0.02	0.00	0.00
Religious Attendance	2.08	0.04	<b>1.88</b>	0.03	0.00	0.00
Expect to Marry before Age 25 (1-5)	3.25	0.03	3.30	0.03	2.99	0.03



Table 5.2 begins the multivariate analysis with eight logistic-regression models predicting the likelihood of a respondent choosing the highest response category on college aspirations. Model 1 indicates the baseline association between religious affiliation and highest college aspirations. The significant -0.047 average marginal effect (hereafter AME) for CPs corresponds with the 5% difference between CPs and non-CP religious youth observed in Table 5.1. Adding demographic controls in Model 2 increases the coefficient for CP affiliation. The larger (more negative) AME in Model 2 confirms the suppression effect<sup>15</sup>. In ancillary analyses (not shown), adding race and gender separately show that the control for race entirely accounts for the change in the CP coefficient between Models 1 and 2. As expected, African Americans relatively higher college aspirations were pushing the overall CP average higher to a significant degree.

The introduction of family socioeconomic characteristics in Model 3 reduces the CP AME, but it remains significant. This finding lends support to the resource-deficiency theory, suggesting that where CPs differ from other religious affiliates in their college aspirations, an important part of the difference is rooted in family SES differences. The inclusion of statistically significant variables for verbal aptitude (Model 4) and self-reported grades (Model 5) further attenuates the coefficient for CP, and it becomes nonsignificant. Verbal aptitude is a mechanism that I conceptualize as part of the resource-deficiency hypothesis, based on evidence that CPs have lower levels of verbal ability (Sherkat 2010). I include self-reported grades to control for other school-related competencies. Note also that all of the family SES coefficients are also reduced in Models 4 and 5, indicating that, especially for those students whose parents have not

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<sup>15</sup> Because of the nature of logistic regression, logit coefficients and odds ratios sometimes indicate patterns that are inappropriately interpreted as suppression effects. Average marginal effects (AMEs), however, accurately indicate suppression and allow for comparisons across nested models (Mood 2010).

finished high school, lower performance in school helps explain the link between low SES and lower college aspirations.

Table 5.2: Logistic Regression Predicting Highest Aspirations - Add Health Wave I (N=15,023)

VARIABLES	Model 1		Model 2		Model 3		Model 4	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.794**	-0.047**	0.729***	-0.063***	0.810*	-0.041*	0.818*	-0.039*
	[0.679 - 0.930]	(0.016)	[0.622 - 0.854]	(0.016)	[0.679 - 0.965]	(0.016)	[0.685 - 0.976]	(0.016)
No Affiliation	0.472***	-0.167***	0.497***	-0.152***	0.544***	-0.126***	0.558***	-0.119***
	[0.406 - 0.549]	(0.018)	[0.426 - 0.579]	(0.018)	[0.462 - 0.641]	(0.017)	[0.471 - 0.660]	(0.017)
Female			1.310***	0.053***	1.315***	0.052***	1.342***	0.055***
			[1.177 - 1.458]	(0.011)	[1.171 - 1.476]	(0.010)	[1.193 - 1.509]	(0.010)
African American			1.208*	0.038*	1.317**	0.051**	1.567***	0.082***
			[1.015 - 1.438]	(0.017)	[1.100 - 1.576]	(0.015)	[1.306 - 1.879]	(0.015)
Hispanic			0.757**	-0.060**	0.975	-0.007	1.145	0.024
			[0.619 - 0.926]	(0.022)	[0.789 - 1.203]	(0.020)	[0.918 - 1.427]	(0.020)
Asian-American			1.632	0.090*	1.528	0.076	1.799*	0.101**
			[0.998 - 2.670]	(0.040)	[0.932 - 2.506]	(0.038)	[1.098 - 2.948]	(0.035)
Other Race			1.075	0.015	1.183	0.031	1.221	0.036
			[0.744 - 1.553]	(0.037)	[0.807 - 1.736]	(0.033)	[0.833 - 1.790]	(0.033)
Raised in the South			1.213	0.039	1.248*	0.042*	1.269*	0.045**
			[0.997 - 1.476]	(0.020)	[1.037 - 1.503]	(0.017)	[1.055 - 1.527]	(0.017)
Non traditional Family					0.864*	-0.030*	0.880	-0.027*
					[0.755 - 0.988]	(0.012)	[0.769 - 1.007]	(0.012)
Parents – No HS grad					0.741*	-0.068**	0.842	-0.038
					[0.593 - 0.925]	(0.025)	[0.667 - 1.062]	(0.025)
Parents – College grad					2.100***	0.137***	1.955***	0.123***
					[1.782 - 2.474]	(0.013)	[1.658 - 2.306]	(0.013)
Parents Income/10,000					1.047**	0.008***	1.038*	0.006**
					[1.015 - 1.079]	(0.002)	[1.008 - 1.069]	(0.002)
Verbal Ability (PVT)							1.018***	0.003***
							[1.013 - 1.024]	(0.000)

95 c.i. in brackets; robust s.e. in parentheses. Included in all models but not shown: grade level and age.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 5.2 (continued)

VARIABLES	Model 5		Model 6		Model 7		Model 8	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.841	-0.032	0.838	-0.033	0.834	-0.033	0.832	-0.034
	[0.698 - 1.012]	(0.016)	[0.695 - 1.010]	(0.016)	[0.692 - 1.006]	(0.016)	[0.691 - 1.003]	(0.016)
No Affiliation	0.583***	-0.105***	0.594***	-0.102***	0.634***	-0.089***	0.637***	-0.088***
	[0.491 - 0.692]	(0.016)	[0.484 - 0.730]	(0.019)	[0.510 - 0.788]	(0.021)	[0.513 - 0.791]	(0.021)
Non traditional family	0.954	-0.011	0.956	-0.010	0.965	-0.009	0.973	-0.007
	[0.836 - 1.088]	(0.012)	[0.838 - 1.089]	(0.011)	[0.847 - 1.100]	(0.011)	[0.854 - 1.110]	(0.011)
Parents – No HS grad	0.950	-0.009	0.950	-0.009	0.950	-0.009	0.949	-0.010
	[0.855 - 1.056]	(0.009)	[0.855 - 1.056]	(0.009)	[0.855 - 1.056]	(0.009)	[0.853 - 1.055]	(0.009)
Parents – College grad	0.943	-0.011	0.943	-0.011	0.944	-0.011	0.949	-0.010
	[0.851 - 1.044]	(0.009)	[0.851 - 1.045]	(0.009)	[0.853 - 1.046]	(0.009)	[0.856 - 1.051]	(0.009)
Parents Income/10,000	0.860	-0.030	0.860	-0.030	0.861	-0.030	0.859	-0.030
	[0.685 - 1.079]	(0.023)	[0.684 - 1.081]	(0.023)	[0.685 - 1.082]	(0.023)	[0.684 - 1.079]	(0.023)
Verbal Ability (PVT)	1.014***	0.003***	1.014***	0.003***	1.014***	0.003***	1.014***	0.003***
	[1.008 - 1.020]	(0.000)	[1.008 - 1.020]	(0.000)	[1.008 - 1.020]	(0.000)	[1.008 - 1.020]	(0.000)
Self-reported Math grade	1.257***	0.040***	1.257***	0.040***	1.255***	0.040***	1.257***	0.040***
	[1.190 - 1.329]	(0.004)	[1.190 - 1.329]	(0.004)	[1.188 - 1.326]	(0.004)	[1.190 - 1.327]	(0.004)
Self-reported English grade	1.424***	0.066***	1.424***	0.066***	1.419***	0.065***	1.415***	0.064***
	[1.338 - 1.516]	(0.005)	[1.338 - 1.516]	(0.005)	[1.334 - 1.509]	(0.005)	[1.331 - 1.505]	(0.005)
Biblical Inerrancy			1.030	0.005	1.002	0.000	0.990	-0.002
			[0.877 - 1.210]	(0.014)	[0.847 - 1.186]	(0.015)	[0.843 - 1.163]	(0.014)
Religious Attendance					1.049	0.009	1.047	0.008
					[0.989 - 1.113]	(0.005)	[0.987 - 1.111]	(0.005)
Expects to Marry by Age 25							1.071*	0.013*
							[1.008 - 1.139]	(0.005)

95 c.i. in brackets; robust s.e. in parentheses. Variables included in all models but not shown: grade level, age, sex, race, and Southern residence.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

With Model 6 of Table 5.2, I begin to introduce religious predictors related to CP affiliation. Believing the Bible (or other holy book) to be inerrant and religious attendance (Model 7) have no association with college aspirations. Those youth who are more certain they will marry by age 25 (Model 8) are slightly *more* likely to aspire to attend college. Neither biblical inerrantism, religious attendance, nor a greater desire for early marriage appears to help explain CP aspirations.

Shifting the analytical lens to determine if the associations between religious affiliation and highest college aspirations differ significantly by race and gender, I estimated models (not shown) with cross-product interactions between race and affiliation, and gender and affiliation. The models indicated significant differences by race, but not by gender.

Table 5.3 displays the full models from Table 5.2, but with subsamples by race. Subsamples are shown only for Whites, African American, and Hispanics. Notably nonaffiliates are less likely than non-CP religious youth to have the highest aspirations regardless of race, but only White CPs differ significantly from their non-CP peers. This finding is consistent with the race-stratified resistance hypothesis, a special case of the resistance theory. (Alternatively, unmeasured variation in resources could account for the lower college aspirations of White CPs. If biblical inerrancy had been associated with lower aspirations, this would have provided stronger evidence in support of the resistance and/or ambivalence arguments). As the estimates on Table 5.3 for the White subsample indicate, White CPs are 7% less likely to have the highest college aspirations, compared with White non-CP religious peers, even after accounting for a host of potential mechanisms and controls. The White CP AME is reduced only by about one-third from the baseline to the full model. The clear differences across racial contexts corroborate earlier research indicating that CP youth of different races may have different educational experiences (Fitzgerald and Glass 2008). Note that I also tested interactions between gender and religious affiliation for White youth and found no significant differences between White men and women in the association between religious affiliation and highest college aspirations.

To test the amplified resistance, compensation, and transformed resistance hypotheses, I tested cross-product interactions (not shown) between affiliation and religious attendance and found no significant effects in the full or White samples. Because cross-product interactions may be inaccurate if the associations between religious attendance and aspirations are not linear, I also combined the attendance and affiliation measures to create five attendance/affiliation dummies (as described in Chapter 4). These models (not shown) support the null findings from the cross-product models. None of the hypotheses involving attendance are supported. In fact, religious attendance appears to have no effect on college aspirations at all.

Table 5.3: Logistic Regression Predicting Highest Aspirations by Race - Add Health Wave I (N=15,023)

	White		African American		Hispanic	
	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.698**	-0.069***	1.334	0.051	1.146	0.029
	[0.566 - 0.862]	(0.019)	[0.976 - 1.823]	(0.028)	[0.770 - 1.705]	(0.036)
No Affiliation	0.591***	-0.103***	0.810	-0.047	0.677	-0.079
	[0.444 - 0.786]	(0.027)	[0.452 - 1.452]	(0.058)	[0.368 - 1.244]	(0.062)
Female	1.275**	0.045***	1.127	0.021	0.972	-0.002
	[1.102 - 1.476]	(0.013)	[0.873 - 1.454]	(0.023)	[0.730 - 1.295]	(0.027)
Raised in the South	1.319*	0.053*	1.050	0.013	1.376	0.060
	[1.045 - 1.666]	(0.021)	[0.790 - 1.395]	(0.026)	[0.807 - 2.345]	(0.049)
Non traditional Family	1.006	-0.001	1.074	0.012	0.886	-0.026
	[0.854 - 1.184]	(0.015)	[0.870 - 1.326]	(0.019)	[0.625 - 1.256]	(0.034)
Parents – No HS grad	0.798	-0.045	0.845	-0.035	0.905	-0.020
	[0.543 - 1.172]	(0.039)	[0.420 - 1.700]	(0.074)	[0.653 - 1.253]	(0.033)
Parents – College grad	1.832***	0.113***	1.570**	0.075**	1.289	0.052
	[1.482 - 2.265]	(0.018)	[1.196 - 2.059]	(0.023)	[0.831 - 1.999]	(0.041)
Parents Income/10,000	1.049**	0.009***	1.005	-0.000	1.016	0.001
	[1.018 - 1.082]	(0.002)	[0.969 - 1.043]	(0.002)	[0.975 - 1.057]	(0.003)
Verbal Ability (PVT)	1.018***	0.003***	1.008	0.002	1.012**	0.002**
	[1.010 - 1.026]	(0.001)	[0.998 - 1.018]	(0.001)	[1.004 - 1.020]	(0.001)
Self-reported Math grades	1.263***	0.042***	1.204***	0.035***	1.310**	0.048***
	[1.175 - 1.357]	(0.006)	[1.083 - 1.339]	(0.009)	[1.121 - 1.531]	(0.013)
Self-reported English grades	1.454***	0.073***	1.286**	0.046***	1.442***	0.064***
	[1.336 - 1.583]	(0.007)	[1.109 - 1.490]	(0.013)	[1.239 - 1.678]	(0.013)
Biblical Inerrancy	1.008	0.001	0.918	-0.017	1.110	0.022
	[0.819 - 1.240]	(0.019)	[0.661 - 1.276]	(0.030)	[0.757 - 1.627]	(0.037)
Religious Attendance	1.042	0.008	1.083	0.012	0.991	-0.002
	[0.965 - 1.126]	(0.007)	[0.941 - 1.246]	(0.013)	[0.869 - 1.131]	(0.012)
Expects to Marry by Age 25	1.078*	0.014*	1.100*	0.017*	1.065	0.014
	[1.000 - 1.163]	(0.007)	[1.020 - 1.186]	(0.007)	[0.934 - 1.216]	(0.013)

95 c.i. in brackets, Robust s.e. in parentheses. Included in all models but not shown: grade level and age.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

## CONCLUSION

Results in this chapter indicate that White CPs, regardless of their gender, are less likely to have the highest college aspirations compared to White youth from other religious traditions. CPs from other ethnic groups do not appear to be aspirationally disadvantaged. These findings suggest that CP youth of different races may have different educational experiences. This may be because they experience CP culture differently depending on their race or because of unmeasured differences in resources among CP families. As indicated in Chapter 3, this is probably due to the long history of racial segregation among CP congregations. African American and Hispanic CPs (and probably CPs of other ethnicities as well) may have developed different beliefs about higher education than their White CP counterparts. If there is overt resistance to college in CP culture, articulated at a discursive level of cognition, it will likely be found only in predominantly White CP congregations. Yet, given that direct measures of CP culture are not associated with college aspirations, my only evidence in support of any cultural explanations is my inability to explain the lower college aspirations among White CPs. An alternative explanation for the observed patterns could be that unmeasured differences in resources, particularly among White CP families, account for their lower college aspirations.

As predicted by theory, resource deficiencies play an important role in explaining White CPs relatively lower college aspirations. There is some evidence here that resource deficits affect college aspirations through poor students' lower verbal aptitude and lower grades. These poor performing students may realize at some point in their academic careers that they will have a difficult time making it to college, and they adjust their aspirations downward.



Resource deficiencies do not completely explain White CPs relatively lower aspirations, but none of the other theories (at least as they are operationalized here) help make up the highest-aspirations gap. None of the hypotheses related to embeddedness (via religious attendance) were supported. And in a blow to the straightforward resistance theory, Bible beliefs did nothing to explain the remaining White CP deficit in aspirations, even though the remaining deficit was substantial. Thus, I find very little evidence that CP *religious* beliefs or practices are overtly resistant to college, at least not in regards to aspirations. In fact, with the evidence from this study alone, it is impossible to say if or how CP culture currently plays a role in influencing CP aspirations.

This chapter has limitations that should be considered in evaluating its findings. First, since the study is cross-sectional, it is unable to sort out issues of causal direction. In addition, some of the predictors are difficult to accurately measure. Religious affiliation and religious attendance—as well as college aspirations—are fluid through adolescence. There may be important variations in affiliation, attendance, or aspirations that take place after Wave I (when religious characteristics were measured, for some students as early as 7<sup>th</sup> grade) and before the end of high school. This study in particular has to assume relative stability in adolescents' religious background, which may not be the case. Finally, there may be unmeasured variables associated with CP affiliation that account for White CPs lower aspirations.

The clearest finding from this study is that White CPs, when compared to White youth from other religious affiliations, are less likely to express the highest desire to attend college. What makes them “hedge” on giving the (apparently normative) strongest affirmation to their college aspirations? Even after accounting for socio-economic differences, verbal ability, and grades, White CP youth show less enthusiasm for college. I find no evidence that their reticence is because of anticolllege messages they are

internalizing from their congregations or because of a desire to begin their families instead of attending college. Because of the more discursive nature of college aspirations, future qualitative studies may be better able to uncover the link between White CPs affiliation and their relatively lower college aspirations.

Do White CPs relatively lower college aspirations translate into a lack of preparation for college, or ultimately into a lower likelihood of attending college? Will the CP gap in college attendance prove to be a phenomenon driven only by White CPs? Based on the findings in this and those in Chapter 2, a relative lack of resources is certainly an important part of the explanation for the (White?) CP gap. Will the resistance or ambivalence theories help explain college preparations or college attendance? The next two chapters will attempt to answer those questions.

## Chapter 6

### **The College Preparation of Conservative-Protestant Youth**

I've shown that while most CP youth (White CPs) are less likely to want to attend college, some of them aspire to attend college as much as their non-CP peers of similar SES. It may also be that CP youth are less *prepared* for college than are their non-CP peers. Certainly those who are less interested are also likely to be underprepared, but even the CP youth who hope to attend may find themselves unable to make the jump across the breach in the pipeline for any number of reasons.

In this chapter, I use high school–transcript data from the Add Health and AHAA sample to answer the following two questions: First, are CPs less likely to be prepared for college than are their non-CP religious peers? Specifically, I look at two areas of college preparation, two potential “cracks” in the pipeline: the level of courses completed and the cumulative GPA. Second, what, if any, factors related to CP culture and/or differences in material resources help explain why CPs are less prepared for college (what are the stresses on the pipeline)?

#### **THEORETICAL AVENUES OF CP CULTURAL INFLUENCE**

Each of the four theoretical avenues presented in Chapter 3 offers some possible explanations to help answer the second question of this study: Do aspects of CP beliefs and/or differences in material conditions leave CPs less prepared for college? First, because of accumulating difficulties related to resource deficiencies, some CP youth may perceive early in their academic career that they have little chance at entering college so they invest their time, interests, and energies elsewhere. Resources may also influence the quality of education to which youth have access. Poorly funded schools in poor districts may lack adequate teaching resources and may not be able to offer the full range of

courses. I do not directly test for school or neighborhood effects in this study. In this case, accounting for resources would explain any CP gaps in college preparation, and these gaps would be expected to show up in both GPA and course taking.

Second, CP educational resistance theory would certainly predict that CPs with lower aspirations (only White CPs as shown in Chapter 5) would be less likely to prepare themselves for college. But resistance could work in other ways as well. If CPs are not resisting college *per se*, but resisting the ideas and atmosphere associated with secular universities (as suggested by Sherkat and Darnell 1999), then they might have high college aspirations, and even high GPAs, but avoid taking certain college preparatory courses. In this case, CPs would be expected to avoid those courses in which they are most likely to encounter ideas at odds with their beliefs, such as upper-level science courses which explain the mechanics of the universe in material terms without reference to supernatural causes. Other upper-level courses, such as math, which contain almost no moral or normative content, would not be expected to vex resistant CPs. The resistance hypothesis would also anticipate that CPs more conservative Bible beliefs help explain the associations noted above and that CPs who are more embedded in CP culture (e.g. frequently attend religious services) would be the most likely to exhibit lower level of college preparation.

Based on the reasoning above, the resistance avenue of CP cultural influence would be supported if: (1) White CPs lower aspirations help explain CP deficits in both GPA and course taking (the special case of race stratified resistance), or (2) CPs (of any race) take less challenging curriculums than their non-CP peers AND that this difference is due to CP avoidance of upper-level science, (3) CP's more conservative Bible beliefs help explain CP's deficits in college preparation, and (4) CPs who regularly attend

religious services are even less likely to be prepared for college than non-CP peers or infrequently attending CPs.

Third, CP educational ambivalence theory predicts that CPs hold beliefs that impede college preparation but that relatively higher levels of religious attendance would help compensate for, or possibly transform, any cultural elements of educational resistance. If attendance is compensatory then CP differences (from non-CP religious peers) in GPA or course-taking would be even more pronounced after accounting for religious attendance. Or, if regular religious attendance is transformative, only infrequently attending CPs would be at a deficit in GPA or course-taking, compared to non-CP religious peers. The alternative pursuits (early marriage) version of ambivalence theory predicts that CPs who desire early family formation would also be less likely to expend energy on college preparations. Thus, any observed differences between CPs and non-CP peers regarding GPA or course taking would be largely explained by accounting for CPs desires for early family formation.

Fourth, as was already made evident in Chapter 5, CP educational outcomes may vary significantly across race, gender, and region. Because of the earlier finding that only White CPs have relatively lower college aspirations, I begin my multivariate analyses by checking for differences by race in the effects of religious affiliation on college preparation.

As with Chapter 5, I use the Add Health sample to explore the research questions of this study, though beginning with this chapter, I add the AHAA high school transcripts. Only high school graduates are included in this study. More information on sample, measures, and modeling strategy are available in Chapter 4.

## **RESULTS**

Table 6.1 displays descriptive statistics for the main analytical variables by religious tradition. Conservative Protestants are about as likely as youth from other religious groups to complete the mid-level of coursework but are only half as likely to complete the rigorous level of coursework. Using the ordered measure of course work (0 = standard or less than standard curriculum, 1 = mid-level, and 2 = rigorous), CPs average a lower level of courses completed than non-CP religious peers, but are no different from the nonaffiliated. CPs also post significantly lower GPAs on average compared with their non-CP religious peers. Descriptive statistics indicate that CPs are indeed less prepared for college than are their non-CP peers; collectively, they have lower GPAs and complete less demanding coursework.

Table 6.1: Weighted Means and Standard Errors for Analytic Variables – Add Health Wave I & IV and AHAA (N=9,567)

	Full Analytic Sample		Conservative Protestant at Wave I N=2,888 (30%)		Other Affiliation at Wave I N=5,485 (57%)		No Affiliation at Wave I N=1,194 (13%)	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Ordered Level of HS curriculum (0-2)	0.54	0.03	0.46	0.02	<b>0.60</b>	0.04	0.46	0.04
Completed Standard or less	0.55	0.02	0.59	0.02	<b>0.51</b>	0.03	<b>0.63</b>	0.03
Completed Mid-level or above	0.45	0.02	0.41	0.02	<b>0.49</b>	0.03	<b>0.37</b>	0.03
Cumulative HS GPA	2.65	0.03	2.55	0.04	<b>2.73</b>	0.03	<b>2.51</b>	0.04
Female	0.52	0.01	0.52	0.01	0.52	0.01	<b>0.48</b>	0.02
African American	0.14	0.02	0.28	0.04	<b>0.06</b>	0.01	<b>0.11</b>	0.02
Hispanic	0.10	0.02	0.04	0.01	<b>0.14</b>	0.02	<b>0.09</b>	0.02
Asian American	0.04	0.01	0.02	0.00	<b>0.05</b>	0.01	<b>0.05</b>	0.01
White	0.70	0.03	0.64	0.04	<b>0.73</b>	0.03	0.72	0.03
Other race	0.02	0.00	0.02	0.00	0.02	0.00	0.03	0.01
Raised in the South	0.36	0.02	0.62	0.03	<b>0.25</b>	0.02	<b>0.26</b>	0.03
Non traditional family at Wave I	0.40	0.01	0.46	0.02	<b>0.35</b>	0.01	<b>0.52</b>	0.03
Number of siblings	2.59	0.04	2.75	0.06	<b>2.48</b>	0.04	<b>2.65</b>	0.09
Neither parent HS grad	0.08	0.01	0.09	0.01	0.07	0.01	0.10	0.01
Parent(s) HS grad only	0.56	0.02	0.61	0.02	<b>0.52</b>	0.02	0.59	0.03
Parent(s) with college degree	0.36	0.02	0.30	0.02	<b>0.40</b>	0.02	0.31	0.03
Parental income at Wave I / 10,000	4.92	0.16	4.07	0.11	<b>5.49</b>	0.22	<b>4.40</b>	0.22
Verbal Ability (pvt)	103.32	0.54	100.97	0.63	<b>104.55</b>	0.59	<b>103.44</b>	0.97
College Aspirations at Wave I	4.51	0.02	4.48	0.03	<b>4.58</b>	0.03	<b>4.22</b>	0.05
Biblical Inerrantist at Wave I	0.64	0.01	0.83	0.01	<b>0.69</b>	0.02	<b>0.00</b>	0.00
Religious Attendance at Wave I	1.75	0.04	2.16	0.04	<b>1.92</b>	0.03	<b>0.00</b>	0.00
Expects to Marry by Age 25	3.28	0.02	3.27	0.04	<b>3.35</b>	0.03	<b>3.00</b>	0.05
Grade level at Wave I	9.51	0.12	9.45	0.15	9.48	0.13	9.75	0.14
Age at Wave I	15.45	0.12	15.44	0.15	15.39	0.13	15.76	0.14

Means in bold for no affiliation and other religious affiliations differ significantly from corresponding CP mean at .05 level or better.

Other descriptors of note follow the patterns observed in Chapter 5, CP youth attend religious services more frequently and are more likely to view the Bible as the inerrant word of God. CP youth are not more likely to say they expect to be married by age 25, but they are significantly less likely than their non-CP religious peers to say they want to attend college. CP youth come from families with less education and lower incomes, on average. CPs are heavily concentrated in the South (63 vs. 25 percent). CP adolescents also have lower scores on the verbal-aptitude test.

Bivariate statistics give a few clues as to which other variables may prove predictive of CP college preparation. CPs differ notably on views of the Bible, religious attendance, college aspirations and verbal aptitude, but they are surprisingly similar to non-CP peers on expectations for early marriage.

Because Chapter 5's findings indicate that only White CPs exhibit lower college aspirations, I begin the multivariate analysis by checking for cross-product interactions between race and religious affiliation. I find no evidence that the effect of religious affiliation differs by race for either course taking or GPA. Race does not appear to be an important moderating factor for CP youth when it comes to course taking. I also checked cross-product interactions between religious affiliation and gender, and again could find no evidence of variation in the association between religious affiliation and either measure of college preparation. CP young men and women do not appear to be approaching course taking from distinctly gendered perspectives. There is no evidence in this study that CP women are taking easier courses because they are preparing for family life rather than college and career. Likewise, CP men appear to feel no extra pressure to prepare for a breadwinning role, at least in a way that affects their taking a more or less challenging high-school curriculum. Interactions involving region are similarly nonsignificant. Thus, subsequent analyses will not be stratified by race, region, or gender.



Table 6.2 continues the multivariate analysis with eight logistic-regression models predicting the likelihood of a respondent completing at least the mid-level curriculum of coursework. Model 1 predicts completion of mid-level or higher by religious affiliation. CPs are significantly less likely to take more difficult coursework than are their non-CP peers. On average, then, CP students are about 7% less likely than their non-CP religious peers to complete at least a mid-level curriculum. While further explanation of this gap awaits the remainder of the analysis, this baseline finding is evidence that lower levels of coursework might be part of the story behind lagging CP college attendance.

Table 6.2: Logistic Regression Predicting Completion of Mid-level Curriculum or Higher - Add Health Wave I (N=9,567)

VARIABLES	Model 1		Model 2		Model 3		Model 4	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.734**	-0.077**	0.633***	-0.107***	0.702***	-0.078***	0.718***	-0.070***
	[0.590 - 0.912]	(0.027)	[0.520 - 0.770]	(0.023)	[0.583 - 0.847]	(0.020)	[0.594 - 0.869]	(0.020)
No Affiliation	0.606***	-0.122***	0.618***	-0.111***	0.707**	-0.074**	0.692**	-0.076**
	[0.474 - 0.775]	(0.030)	[0.480 - 0.795]	(0.029)	[0.556 - 0.900]	(0.026)	[0.548 - 0.875]	(0.024)
Female			1.275**	0.056**	1.352***	0.066***	1.493***	0.082***
			[1.103 - 1.473]	(0.017)	[1.164 - 1.569]	(0.016)	[1.276 - 1.747]	(0.016)
African American			0.771	-0.061	1.053	0.014	1.532**	0.088**
			[0.587 - 1.012]	(0.032)	[0.807 - 1.375]	(0.029)	[1.154 - 2.033]	(0.029)
Hispanic			0.698**	-0.084**	1.007	0.001	1.352*	0.059*
			[0.535 - 0.910]	(0.031)	[0.767 - 1.321]	(0.029)	[1.029 - 1.776]	(0.028)
Asian-American			2.166**	0.180**	2.285**	0.182***	3.301***	0.244***
			[1.341 - 3.501]	(0.054)	[1.390 - 3.756]	(0.052)	[2.021 - 5.389]	(0.046)
Other Race			0.929	-0.017	1.103	0.022	1.098	0.019
			[0.566 - 1.524]	(0.059)	[0.682 - 1.786]	(0.054)	[0.680 - 1.774]	(0.051)
Raised in the South			1.763***	0.132***	1.888***	0.139***	2.073***	0.150***
			[1.284 - 2.421]	(0.036)	[1.415 - 2.518]	(0.031)	[1.561 - 2.752]	(0.029)
Non traditional Family					0.801**	-0.045*	0.801*	-0.043*
					[0.678 - 0.946]	(0.019)	[0.675 - 0.951]	(0.018)
Number of Siblings					0.894***	-0.024***	0.908***	-0.020***
					[0.864 - 0.924]	(0.004)	[0.877 - 0.941]	(0.004)
Parents – No HS grad					0.584***	-0.110***	0.714**	-0.068**
					[0.472 - 0.721]	(0.020)	[0.574 - 0.888]	(0.021)
Parents – College grad					2.076***	0.164***	1.847***	0.131***
					[1.715 - 2.512]	(0.022)	[1.543 - 2.211]	(0.020)
Parents Income/10,000					1.039*	0.010**	1.031*	0.007*
					[1.006 - 1.073]	(0.003)	[1.000 - 1.062]	(0.003)
Verbal Ability (PVT)							1.043***	0.009***
							[1.036 - 1.050]	(0.001)

95 c.i. in brackets, Robust s.e. in parentheses. Included in all models but not shown: grade level and age.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 6.2 (continued)

VARIABLES	Model 5		Model 6		Model 7		Model 8	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.736**	-0.063**	0.745**	-0.060**	0.734**	-0.063**	0.734**	-0.063**
	[0.605 - 0.894]	(0.020)	[0.612 - 0.907]	(0.020)	[0.604 - 0.892]	(0.020)	[0.605 - 0.891]	(0.020)
No Affiliation	0.785*	-0.049*	0.718*	-0.066*	0.873	-0.027	0.872	-0.028
	[0.619 - 0.995]	(0.023)	[0.554 - 0.932]	(0.026)	[0.658 - 1.159]	(0.028)	[0.654 - 1.161]	(0.029)
Non traditional family	0.811*	-0.039*	0.802*	-0.041*	0.829*	-0.034*	0.831*	-0.034*
	[0.683 - 0.962]	(0.017)	[0.676 - 0.952]	(0.017)	[0.701 - 0.981]	(0.017)	[0.700 - 0.985]	(0.017)
Number of Siblings	0.913***	-0.018***	0.914***	-0.018***	0.910***	-0.019***	0.910***	-0.019***
	[0.880 - 0.948]	(0.004)	[0.880 - 0.949]	(0.004)	[0.877 - 0.945]	(0.004)	[0.877 - 0.945]	(0.004)
Parents – No HS grad	0.717**	-0.064**	0.715**	-0.064**	0.729**	-0.061**	0.725**	-0.062**
	[0.568 - 0.905]	(0.022)	[0.565 - 0.904]	(0.022)	[0.576 - 0.922]	(0.022)	[0.573 - 0.916]	(0.022)
Parents – College grad	1.707***	0.109***	1.706***	0.109***	1.662***	0.103***	1.658***	0.103***
	[1.416 - 2.057]	(0.020)	[1.416 - 2.054]	(0.020)	[1.382 - 1.998]	(0.019)	[1.378 - 1.995]	(0.019)
Parents Income/10,000	1.026	0.006*	1.025	0.006*	1.026	0.006*	1.026	0.006*
	[0.996 - 1.056]	(0.003)	[0.995 - 1.055]	(0.003)	[0.996 - 1.056]	(0.003)	[0.996 - 1.056]	(0.003)
Verbal Ability (PVT)	1.040***	0.008***	1.039***	0.008***	1.039***	0.008***	1.039***	0.008***
	[1.032 - 1.048]	(0.001)	[1.032 - 1.047]	(0.001)	[1.031 - 1.047]	(0.001)	[1.031 - 1.047]	(0.001)
College Aspirations	1.678***	0.104***	1.680***	0.104***	1.677***	0.103***	1.673***	0.103***
	[1.513 - 1.861]	(0.010)	[1.515 - 1.863]	(0.010)	[1.512 - 1.860]	(0.010)	[1.508 - 1.856]	(0.010)
Biblical Inerrancy			0.877	-0.026	0.810*	-0.042*	0.810*	-0.042*
			[0.733 - 1.049]	(0.018)	[0.679 - 0.967]	(0.018)	[0.679 - 0.966]	(0.018)
Religious Attendance					1.142***	0.026***	1.142***	0.026***
					[1.061 - 1.230]	(0.007)	[1.060 - 1.230]	(0.007)
Expects to Marry by Age 25							1.004	0.001
							[0.927 - 1.089]	(0.008)

95 c.i. in brackets, Robust s.e. in parentheses. Variables included in all models but not shown: grade level, age, sex, race, and Southern residence.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Model 2 of Table 6.2 adds demographic and other controls. The average marginal effect (AME) for Model 2 indicates that accounting for demographic factors reveals a suppression effect. Ancillary analyses showed that the suppression is largely due to the high concentration of CPs in the South.<sup>16</sup> Model 3 tests the resource deficiency explanation by adding family structure and socioeconomic predictors. Resource deficiencies explain about 30% of the course-taking gap between CPs and non-CP religious peers. Model 4 adds verbal ability which is a powerful predictor of taking tougher courses and helps to reduce the CP gap in course taking. Overall, resource deficiencies, measured in a variety of ways (SES, family structure, verbal ability) help explain CP course taking deficits, but only when demographic differences are first taken into account. Note that the AME reduction from Model 1 to Model 4 is only 0.007. The substantive relevance of SES for CP differences in high school course taking appears to be small. Given that the inflation of the AME in Model 2 was driven by CPs disproportionate Southern provenance, the findings here give little support to the resource deficiency theory.

Models 5-8 test various aspects of the resistance hypothesis. Model 5 of Table 6.2 adds educational aspirations to the model, reducing the AME for CPs by another 0.007, the same reduction afforded by all the resource predictors. Again, this is a very modest explanation, of dubious substantive significance. It appears that lower CP aspirations do little to help explain why CPs take less challenging courses.

Adding Bible beliefs to the analysis in Model 6 very slightly reduces the CP AME. This reduction is erased in Model 7 after the expected suppression effect created

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<sup>16</sup> A somewhat unusual feature of my sample of high-school graduates is that southern students have higher grades and take more challenging courses, on average, compared with their counterparts from other regions of the country. This might be due to higher dropout rates in the South, whereas academically marginal students are more likely to persist to graduation in other regions of the country. It is also possible that the observed “Southern advantage” is simply an artifact of the Add Health–AHAA sample.

by adding religious attendance. Model 7 shows that religious attendance and biblical inerrantism are both statistically significant predictors of taking at least a mid-level curriculum, though in opposite directions; they essentially cancel one another out. In Model 8, expectations for marriage do not appear to be associated with course taking, much less explaining the CP gap in course taking. Evidently most students who will ultimately graduate high school do not take into account future family plans when choosing courses. While Bible beliefs and religious attendance each have statistically significant explanatory power, and in the expected directions, substantively they provide little evidence to support either the resistance or ambivalence theories of CP cultural influence.

Perhaps the most notable feature of the progression of models in Table 6.2 is the persistence of the CP gap in course taking. Although almost all of the explanatory variables included in the models had the expected independent association with course taking, they do almost nothing to mediate the association between CP affiliation and course taking. So as far as our four avenues of influence are concerned, none of them are particularly effective explaining the CP gap in course taking.

I also proposed to test how attendance may moderate the associations between CP affiliation and course taking. I tested models with cross-product interactions as well as models using the affiliation/attendance dummies described in Chapter 4. None of these approaches yielded statistically significant differences across groups, and thus these analyses are not displayed. These nonfindings nevertheless have important theoretical implications. Religious attendance is significantly correlated with students completing a more rigorous curriculum (see the significant effect in Models 7 and 8 of Table 6.2), and this effect is similar across religious groups. Thus relatively higher levels of attendance

may compensate for other anticollege factors influencing CP youth, but high attendance appears to neither amplify nor transform resistance.

Table 6.3: Mean Level of Credits Earned by Religious Tradition - Add Health Wave I (N=9,567)

	Conservative Protestant at Wave I	Other Religious Affiliations at Wave I	No Religious Affiliation at Wave I
Math	5.77	<b>6.30</b>	5.74
Science	4.18	<b>4.42</b>	<b>4.06</b>
Foreign Language	1.84	<b>2.15</b>	<b>2.00</b>

Means in bold for no affiliation and other religious affiliations differ significantly from corresponding CP mean at .05 level or better.

The next stage of the analysis hones in on the CP gap in course taking, by more closely examining course taking patterns. Table 6.3 shows that CPs are significantly less likely than their non-CP peers to take upper-level courses in math, science, and foreign languages. The resistance theory predicted that CPs would avoid upper-level science, but it offers no rationale why they would also avoid math and foreign language. Instead of a pattern consistent with avoiding secular ideas, CPs simply appear to be avoiding more difficult courses.

Table 6.4 begins the investigation of GPA. Here I follow a similar model progression as Table 6.2 but with the addition of a control variable measuring the level of course work (an ordered variable: 0 = standard curriculum or lower, 1 = mid-level curriculum, 2 = rigorous curriculum), introduced in Model 6. I include coursework as a control in this analysis to account for the relatively lower-level courses taken by CPs; it may be that CPs post higher GPAs because they take easier courses. Note that Table 6.4 shows estimates from OLS regression.

Model 1 of Table 6.4 shows that CPs have lower GPAs, on average, than do their non-CP peers. The 0.1 average lower GPA for CPs matches the roughly 0.1 difference reflected in the descriptive statistics (Table 6.1). Substantively, it's unlikely that a 0.1 average deficit in GPA makes much of a difference in CP college preparation.

Table 6.4: OLS Regression Predicting Cumulative GPA at the End of High School - Add Health Wave I (N=9,567)

	Model 1	Model 2	Model 3	Model 4	Model 5
	B / (SE)	B / (SE)	B / (SE)	B / (SE)	B / (SE)
Conservative Prot.	-0.183*** (0.042)	-0.110** (0.034)	-0.053 (0.029)	-0.039 (0.029)	-0.031 (0.029)
No Affiliation	-0.227*** (0.037)	-0.192*** (0.034)	-0.111*** (0.031)	-0.110*** (0.030)	-0.073* (0.030)
Female		0.275*** (0.024)	0.288*** (0.024)	0.315*** (0.022)	0.294*** (0.023)
African American		-0.478*** (0.059)	-0.352*** (0.050)	-0.222*** (0.047)	-0.249*** (0.047)
Hispanic		-0.322*** (0.046)	-0.198*** (0.044)	-0.087 (0.043)	-0.094* (0.044)
Asian-American		0.185* (0.070)	0.160* (0.064)	0.263*** (0.056)	0.227*** (0.053)
Other Race		-0.206** (0.071)	-0.135* (0.064)	-0.138* (0.064)	-0.148* (0.064)
Raised in the South		0.051 (0.046)	0.062 (0.039)	0.082* (0.038)	0.079* (0.038)
Non traditional Family			-0.197*** (0.024)	-0.193*** (0.023)	-0.188*** (0.022)
Number of Siblings			-0.013* (0.005)	-0.005 (0.005)	-0.003 (0.005)
Parents – No HS grad			-0.133** (0.044)	-0.046 (0.044)	-0.042 (0.044)
Parents – College grad			0.323*** (0.026)	0.270*** (0.024)	0.243*** (0.024)
Parents Income/10,000			0.014*** (0.003)	0.012*** (0.003)	0.010*** (0.003)
Verbal Ability (PVT)				0.014*** (0.001)	0.013*** (0.001)
College Aspirations					0.127*** (0.012)

Included in all models but not shown: grade level and age.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05



Table 6.4 (continued)

	Model 6	Model 7	Model 8	Model 9
	B / (SE)	B / (SE)	B / (SE)	B / (SE)
Conservative Prot.	0.006 (0.027)	0.001 (0.027)	-0.005 (0.027)	-0.006 (0.027)
No Affiliation	-0.056 (0.028)	-0.023 (0.029)	0.073* (0.033)	0.073* (0.033)
Non traditional Family	-0.158*** (0.019)	-0.154*** (0.019)	-0.138*** (0.018)	-0.138*** (0.018)
Number of Siblings	0.007 (0.005)	0.007 (0.005)	0.005 (0.005)	0.005 (0.005)
Parents – No HS grad	-0.027 (0.042)	-0.027 (0.042)	-0.019 (0.042)	-0.019 (0.042)
Parents – College grad	0.168*** (0.022)	0.168*** (0.022)	0.155*** (0.022)	0.155*** (0.022)
Parents Income/10,000	0.006** (0.002)	0.006** (0.002)	0.007** (0.002)	0.007** (0.002)
Verbal Ability (PVT)	0.009*** (0.001)	0.009*** (0.001)	0.008*** (0.001)	0.008*** (0.001)
College Aspirations	0.080*** (0.012)	0.079*** (0.012)	0.078*** (0.012)	0.078*** (0.012)
H.S. Curriculum Level	0.423*** (0.026)	0.424*** (0.026)	0.418*** (0.026)	0.418*** (0.026)
Biblical Inerrancy		0.049 (0.025)	0.010 (0.026)	0.009 (0.026)
Religious Attendance			0.067*** (0.012)	0.067*** (0.012)
Expects to Marry by Age 25				0.003 (0.009)

Variables included in all models but not shown: grade level, age, sex, race, and Southern residence.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

The relative unimportance of the substantive difference we see in Model 1 is accentuated by the progression of the CP coefficient through the various models. Looking across the row of coefficients for CP affiliation in Table 6.4, the coefficient for CP becomes statistically insignificant in Model 3 and remains relatively unmoved for the rest of the progression (even switching signs along the way). The small gap in GPA between CP youth and non-CPA religious youth is completely explained by SES and other demographic factors.<sup>17</sup> Among other predictors of interest, youth who attend religious services more frequently are more likely to earn higher GPAs. As with the analysis of course work, I found no evidence of significant variation in the effect of religious affiliation by religious attendance and do not display results from these analyses.

## CONCLUSION

CP students are less likely than non-CP religious students to take advanced (more college-preparatory) courses in high school. CP students do not, however, earn significantly lower GPAs after controlling for demographics and SES, and even when accounting for their tendency toward taking easier classes. So there is some evidence here that part of the reason that CPs don't attend college at the same rates as other groups may be because they are less likely to have taken the courses that will allow them to be competitive in vying for college admission.

I was unable to identify clear support for any of the theories linking CP culture to course work. Even resource deficiencies do little to explain why CPs are less likely to complete a mid-level curriculum or higher. The resistance theory finds slight support in the fact that CPs relatively lower college aspirations help explain, though only modestly, why CPs take less challenging courses. Alternatively, it may be that unmeasured

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<sup>17</sup> In ancillary analyses (not shown), I found that race is the most important predictor in reducing the CP coefficient to insignificance.

differences in resources or opportunities to take upper level courses explain the correlation between CP affiliation and course taking. There is also minor support for the ambivalence framework in that CPs relatively higher attendance appears to compensate somewhat for other religiously influenced factors (such as more conservative Bible beliefs), which negatively influence course taking. Again, however, this correlation (between religious attendance and course taking) may not be due to cultural factors at all, but due to other unmeasured factors, such as personal dispositions toward order or authority. Substantively, then, none of the four cultural avenues really pass the test of explaining why CPs take less challenging courses.

#### **LIMITATIONS**

Results in this chapter have a number of limitations that should be considered. First, though the outcome measures benefit from fairly precise measurement (due to being taken from high-school transcripts), most of the predictors are more difficult to accurately measure. Religious affiliation and religious attendance, for instance, are both fluid through adolescence. While this study captures affiliation and attendance at a point in time prior to the measurement of the outcome variables, there may be important variation due to changes in affiliation and/or attendance that took place between Wave I (when religious characteristics were measured, for some students as early as seventh grade) and the end of high school.

Additionally, the biblical inerrancy item available in Add Health misses some important nuances which may distinguish CPs from other religious groups. Previous studies on the CP gap usually employ a measure of biblical literalism (i.e., the Bible is literally the Word of God), a more conservative belief than biblical inerrancy (i.e., the Bible doesn't contain error). The variable I used to tap future family intentions is

similarly flawed, which is unfortunate given the importance early family formation is afforded in other studies of the CP gap (Fitzgerald and Glass 2008).

Finally, though I found no evidence that CP college preparation differs importantly by race and gender, I would have liked to have examined these relationships more closely as they relate to the role of congregations. I was only able to use individual race as a proxy for congregations, which are likely divided by race.

## Chapter 7

### The Conservative-Protestant Gap in College Attendance

As discussed in Chapter 2, most of the previous studies on the CP gap have investigated total educational attainment (e.g., Darnell and Sherkat 1997; Fitzgerald and Glass 2008). None has looked specifically at the transition to college. But if CP culture is indeed to be implicated in the CP gap, then the transition to college is a particularly rich part of the educational life course in which to observe culture in action. More American youth are attending college than ever before, and CPs have made notable gains in educational advancement, but CPs have been unable to close historical gaps with other religious groups and still lag behind in overall college attendance.

Successfully making it to college involves a number of decisions and actions (e.g., taking the proper courses in high school, posting sufficiently good grades, applying for admission) on the part of students. Although college *completion* may be an economically more important outcome than is *starting* college, the kinds of choices and actions needed to attain a degree are different than those required to successfully matriculate. While the inertia of following rules and completing assignments may sustain many students through to a degree, college admittance requires intentional choices and behavioral initiative; inertia is not enough.

The journey to college attendance can be derailed at a number of points well before a student is opening rejection letters from prospective schools. In this chapter, I directly examine the transition to college, testing all the predictors from Chapters 5 and 6, and incorporating the GPA and course taking as predictive mechanisms. By tracking a single cohort (Add Health respondents) over time, I examine several different mechanisms to determine where and how CPs are becoming derailed on their way to

college. This approach allows for a stringent test of the hypotheses associated with the four avenues of cultural influence as they are presented in Chapter 3.

So far, I have found some support for the race stratified resistance theory (White CPs have lower college aspirations) and the resource deficiencies theory (SES explains about half of White CPs lower college aspirations). I also discovered that CPs take less challenging courses than their non-CP religious peers but earn similar GPAs. None of the hypotheses offered by the four theoretical avenues was particularly good at explaining CPs lower levels of course taking. It remains to be seen whether lower aspirations or taking less challenging courses can help predict CPs actual college attendance. As I have with the previous chapters, I evaluate the mechanisms linking CP affiliation to college attendance on their cognitive depth.

## **RESULTS**

Table 7.1 displays descriptive statistics for the main analytical variables by religious tradition. In this sample of high-school graduates, about 67 percent of CPs, compared to 76 percent of respondents from other religious affiliations, had attended any college. Also noteworthy is that the nonaffiliated are even less likely to attend college—nearly 4 percent below CPs. While the nonaffiliated are not the main subject of this dissertation, the disparity in college going shown in Table 7.1 certainly warrants further study.

Not surprisingly, CPs attend religious services more frequently than others and are more likely to view the Bible as the inerrant word of God. CPs are also more likely to be African American, Southern (63 vs. 27 percent!), hail from a nontraditional family structure or larger family, and get pregnant or marry by age 21. The typical CP in this sample comes from a family with less income and is less likely to have a parent who

completed college. CPs also have lower verbal-ability scores, have lower college aspirations, post lower GPAs, and take less-challenging courses.

Table 7.1: Weighted Means and Standard Errors for Analytic Variables – Add Health Wave I & IV and AHAA (N=9,567)

	Full Analytic Sample		Conservative Protestant at Wave I N=2,888 (30%)		Other Affiliation at Wave I N=5,485 (57%)		No Affiliation at Wave I N=1,194 (13%)	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Ever Attended College	0.72	0.01	0.67	0.02	<b>0.76</b>	0.01	<b>0.63</b>	0.03
Female	0.52	0.01	0.52	0.01	0.52	0.01	<b>0.48</b>	0.02
African American	0.14	0.02	0.28	0.04	<b>0.06</b>	0.01	<b>0.11</b>	0.02
Hispanic	0.10	0.02	0.04	0.01	<b>0.14</b>	0.02	<b>0.09</b>	0.02
Asian American	0.04	0.01	0.02	0.00	<b>0.05</b>	0.01	<b>0.05</b>	0.01
White	0.70	0.03	0.64	0.04	<b>0.73</b>	0.03	0.72	0.03
Other race	0.02	0.00	0.02	0.00	0.02	0.00	0.03	0.01
Raised in the South	0.36	0.02	0.62	0.03	<b>0.25</b>	0.02	<b>0.26</b>	0.03
Non traditional family at Wave I	0.40	0.01	0.46	0.02	<b>0.35</b>	0.01	<b>0.52</b>	0.03
Number of siblings	2.59	0.04	2.75	0.06	<b>2.48</b>	0.04	<b>2.65</b>	0.09
Neither parent HS grad	0.08	0.01	0.09	0.01	0.07	0.01	0.10	0.01
Parent(s) HS grad only	0.56	0.02	0.61	0.02	<b>0.52</b>	0.02	0.59	0.03
Parent(s) with college degree	0.36	0.02	0.30	0.02	<b>0.40</b>	0.02	0.31	0.03
Parental income at Wave I / 10,000	4.92	0.16	4.07	0.11	<b>5.49</b>	0.22	<b>4.40</b>	0.22
Verbal Ability (pvt)	103.32	0.54	100.97	0.63	<b>104.55</b>	0.59	<b>103.44</b>	0.97
College Aspirations at Wave I	4.51	0.02	4.48	0.03	<b>4.58</b>	0.03	<b>4.22</b>	0.05
Ordered Level of HS curriculum (0-2)	0.54	0.03	0.46	0.02	<b>0.60</b>	0.04	0.46	0.04
Cumulative HS GPA	2.65	0.03	2.55	0.04	<b>2.73</b>	0.03	<b>2.51</b>	0.04
Biblical Inerrantist at Wave I	0.64	0.01	0.83	0.01	<b>0.69</b>	0.02	<b>0.00</b>	0.00
Religious Attendance at Wave I	1.75	0.04	2.16	0.04	<b>1.92</b>	0.03	<b>0.00</b>	0.00
Pregnant by Age 23	0.23	0.01	0.28	0.01	<b>0.20</b>	0.01	0.26	0.02
Married by Age 23	0.14	0.01	0.20	0.02	<b>0.11</b>	0.01	<b>0.11</b>	0.02
Grade level at Wave I	9.51	0.12	9.45	0.15	9.48	0.13	9.75	0.14
Age at Wave I	15.45	0.12	15.44	0.15	15.39	0.13	15.76	0.14

Means in bold for no affiliation and other religious affiliations differ significantly from corresponding CP mean at .05 level or better.



Table 7.2 begins the multivariate analysis, with logistic-regression models predicting ever having attended college. Model 1 of Table 7.2 presents the baseline model with only religious affiliation predicting college attendance. The significant -0.087 average marginal effect (AME) for CP affiliation corresponds with the 9 percent difference in college attendance between CPs and other religiously affiliated (shown in Table 7.1). Adding demographic controls in Model 2 attenuates the CP effect, largely because of the relatively higher number of African American CPs—African Americans are about 6 percent less likely than Whites to attend college. The addition of family structure and resource in Model 3 explains about half of the CP gap in college attendance, with the AME reduced from -0.074 to -0.035. Disparities in resources are clearly an important part of why CPs attend college at lower rates than do high-school graduates from other religious affiliations. Family structure, number of siblings, parental education, and parental income are all (not surprisingly) significant predictors of college attendance, and all in the directions expected. While the explanatory power of family SES and structure is impressive, about half of the effect of CP affiliation remains to be explained. As Model 3 also shows, family SES *completely* explains the black-white gap in college attendance.

The introduction of verbal ability in Model 4 renders the CP gap statistically insignificant and reduces the AME to -0.030. Though the CP coefficient is no longer significant, the introduction of each predictor in Models 5 – 10 drives the AME closer to zero. The exception is religious attendance, which, as in Chapter 6, reveals a suppression effect. Religious attendance (Model 9) and biblical inerrancy (Model 8) are each significant predictors of college attendance; as expected, inerrancy is negative, and attendance is positive. These measures of two important religious elements of CP culture,

however, do very little to explain the CP gap in college attendance. The AME is virtually unchanged from Model 7 (before their introduction) to Model 9.

Table 7.2: Logistic Regression Predicting Ever Having Attended College - Add Health Wave I & IV and AHAA (N=9,567)

VARIABLES	Model 1		Model 2		Model 3		Model 4	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.666*** [0.564 - 0.787]	-0.087*** (0.018)	0.700*** [0.599 - 0.819]	-0.074*** (0.016)	0.827* [0.714 - 0.957]	-0.035* (0.014)	0.847 [0.702 - 1.023]	-0.030 (0.015)
No Affiliation	0.498*** [0.414 - 0.600]	-0.155*** (0.022)	0.485*** [0.405 - 0.581]	-0.157*** (0.021)	0.573*** [0.478 - 0.687]	-0.106*** (0.018)	0.642*** [0.511 - 0.806]	-0.075*** (0.019)
Female			1.558*** [1.396 - 1.738]	0.092*** (0.011)	1.568*** [1.384 - 1.775]	0.084*** (0.011)	1.764*** [1.529 - 2.034]	0.095*** (0.012)
African American			0.738* [0.571 - 0.954]	-0.064* (0.029)	1.028 [0.823 - 1.284]	0.006 (0.020)	1.556** [1.187 - 2.038]	0.068*** (0.019)
Hispanic			0.529*** [0.407 - 0.688]	-0.139*** (0.031)	0.808 [0.589 - 1.109]	-0.040 (0.031)	1.151 [0.893 - 1.484]	0.018 (0.020)
Asian-American			1.337 [0.844 - 2.118]	0.053 (0.040)	1.210 [0.771 - 1.899]	0.032 (0.037)	1.297 [0.747 - 2.253]	0.039 (0.039)
Other Race			0.768 [0.514 - 1.147]	-0.055 (0.044)	0.927 [0.641 - 1.341]	-0.013 (0.034)	0.780 [0.516 - 1.180]	-0.043 (0.035)
First Gen. Immigrant			1.277 [0.873 - 1.867]	0.049 (0.037)	1.491 [0.997 - 2.230]	0.066 (0.034)	2.422** [1.430 - 4.102]	0.129*** (0.030)
Raised in the South			0.909 [0.707 - 1.168]	-0.020 (0.026)	0.922 [0.749 - 1.136]	-0.015 (0.019)	0.934 [0.756 - 1.152]	-0.011 (0.017)
Non-traditional Family					0.798** [0.696 - 0.915]	-0.042** (0.013)	0.783** [0.664 - 0.924]	-0.039** (0.013)
Number of Siblings					0.932*** [0.902 - 0.964]	-0.013*** (0.003)	0.961 [0.922 - 1.003]	-0.006 (0.003)
Parents – No HS grad					0.576*** [0.465 - 0.714]	-0.126*** (0.025)	0.765 [0.580 - 1.009]	-0.058* (0.029)
Parents – College grad					2.735*** [2.309 - 3.240]	0.178*** (0.012)	2.518*** [2.104 - 3.013]	0.146*** (0.012)
Parents Income/10,000					1.063*** [1.040 - 1.086]	0.012*** (0.002)	1.069*** [1.031 - 1.109]	0.012*** (0.002)
Verbal Ability (PVT)							1.046*** [1.038 - 1.053]	0.007*** (0.001)

95 c.i. in brackets, Robust s.e. in parentheses. Included in all models but not shown: Grade level at Wave I.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 7.2 (continued)

VARIABLES	Model 5		Model 6		Model 7		Model 8	
	OR	AME	OR	AME	OR	AME	OR	AME
Conservative Prot.	0.866	-0.024	0.924	-0.013	0.932	-0.011	0.949	-0.008
	[0.713 - 1.052]	(0.014)	[0.762 - 1.120]	(0.013)	[0.770 - 1.128]	(0.012)	[0.784 - 1.149]	(0.012)
No Affiliation	0.737*	-0.047*	0.770*	-0.038*	0.792	-0.033	0.676*	-0.056**
	[0.577 - 0.941]	(0.019)	[0.599 - 0.989]	(0.017)	[0.601 - 1.042]	(0.018)	[0.503 - 0.909]	(0.020)
Non-traditional Family	0.785**	-0.036**	0.814*	-0.029*	0.907	-0.013	0.893	-0.015
	[0.663 - 0.929]	(0.013)	[0.681 - 0.974]	(0.012)	[0.752 - 1.094]	(0.012)	[0.740 - 1.078]	(0.012)
Number of Siblings	0.969	-0.005	0.988	-0.002	0.981	-0.003	0.981	-0.003
	[0.925 - 1.015]	(0.003)	[0.942 - 1.037]	(0.003)	[0.933 - 1.032]	(0.003)	[0.933 - 1.032]	(0.003)
Parents – No HS grad	0.771	-0.052	0.820	-0.037	0.831	-0.034	0.829	-0.034
	[0.564 - 1.053]	(0.029)	[0.602 - 1.116]	(0.027)	[0.603 - 1.146]	(0.026)	[0.599 - 1.147]	(0.026)
Parents – College grad	2.303***	0.125***	2.105***	0.106***	1.916***	0.089***	1.919***	0.089***
	[1.909 - 2.779]	(0.012)	[1.743 - 2.543]	(0.011)	[1.566 - 2.343]	(0.012)	[1.569 - 2.348]	(0.012)
Parents Income/10,000	1.062**	0.010***	1.048*	0.007***	1.039	0.005**	1.039	0.005**
	[1.020 - 1.105]	(0.002)	[1.007 - 1.090]	(0.002)	[0.999 - 1.081]	(0.002)	[0.998 - 1.081]	(0.002)
Verbal Ability	1.041***	0.006***	1.032***	0.004***	1.026***	0.004***	1.026***	0.004***
	[1.034 - 1.049]	(0.001)	[1.024 - 1.039]	(0.000)	[1.019 - 1.033]	(0.000)	[1.018 - 1.033]	(0.000)
College Aspirations	1.683***	0.082***	1.538***	0.063***	1.479***	0.055***	1.483***	0.056***
	[1.554 - 1.823]	(0.005)	[1.416 - 1.670]	(0.005)	[1.357 - 1.611]	(0.005)	[1.360 - 1.618]	(0.005)
Level of HS Curriculum			3.339***	0.178***	2.359***	0.121***	2.347***	0.120***
			[2.802 - 3.979]	(0.012)	[1.957 - 2.843]	(0.012)	[1.948 - 2.828]	(0.012)
Cumulative HS GPA					2.113***	0.106***	2.126***	0.107***
					[1.829 - 2.441]	(0.009)	[1.837 - 2.461]	(0.009)
Biblical Inerrantist							0.798*	-0.032**
							[0.659 - 0.967]	(0.012)

95 c.i. in brackets, Robust s.e. in parentheses. Variables included in all models but not shown: grade at Wave I, gender, race, immigration status, and Southern residence at Wave I.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Table 7.2 (continued)

VARIABLES	Model 9		Model 10	
	OR	AME	OR	AME
Conservative Prot.	0.937 [0.774 - 1.135]	-0.010 (0.012)	0.965 [0.798 - 1.167]	-0.006 (0.012)
No Affiliation	0.773 [0.571 - 1.047]	-0.036 (0.020)	0.778 [0.575 - 1.053]	-0.035 (0.020)
Non-traditional Family	0.910 [0.753 - 1.099]	-0.013 (0.012)	0.939 [0.777 - 1.136]	-0.008 (0.012)
Number of Siblings	0.979 [0.930 - 1.029]	-0.003 (0.003)	0.986 [0.937 - 1.037]	-0.002 (0.003)
Parents – No HS grad	0.837 [0.608 - 1.154]	-0.032 (0.026)	0.824 [0.603 - 1.128]	-0.035 (0.025)
Parents – College grad	1.886*** [1.540 - 2.309]	0.086*** (0.012)	1.830*** [1.498 - 2.235]	0.082*** (0.012)
Parents Income/10,000	1.039 [0.999 - 1.080]	0.005** (0.002)	1.037 [0.999 - 1.076]	0.005* (0.002)
Verbal Ability	1.026*** [1.018 - 1.033]	0.003*** (0.000)	1.026*** [1.019 - 1.033]	0.004*** (0.000)
College Aspirations	1.485*** [1.362 - 1.619]	0.056*** (0.005)	1.486*** [1.363 - 1.620]	0.055*** (0.005)
Level of HS Curriculum	2.339*** [1.941 - 2.818]	0.119*** (0.012)	2.264*** [1.885 - 2.720]	0.114*** (0.012)
Cumulative HS GPA	2.099*** [1.814 - 2.428]	0.105*** (0.009)	2.044*** [1.771 - 2.358]	0.100*** (0.009)
Biblical Inerrantist	0.753** [0.620 - 0.915]	-0.040** (0.012)	0.763** [0.628 - 0.927]	-0.038** (0.012)
Religious Attendance	1.106* [1.011 - 1.209]	0.014* (0.006)	1.110* [1.016 - 1.211]	0.015* (0.006)
Pregnancy by Age 21			0.713*** [0.604 - 0.842]	-0.048*** (0.012)
Marriage by Age 21			0.688** [0.538 - 0.879]	-0.055** (0.017)

95 c.i. in brackets; robust s.e. in parentheses. Variables included in all models but not shown: grade at Wave I, gender, race, immigration status, and Southern residence at Wave I.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

Note the impact, in Models 6 and 7, of high-school course taking and high-school GPA, each of which proves to be a large and significant predictor of college attendance. Each additional point of GPA increases the likelihood of college attendance by almost 11 percent, while taking a midlevel curriculum instead of standard (or rigorous over

midlevel) increases the likelihood of college attendance by about 12 percent. As it is, the gap is completely explained by Model 10 (CP AME =  $-0.006$  and non significant).

Table 7.3 decomposes the CP effect into the direct “effect” of CP and the indirect “effect” of CP through each mechanism. Note that in the models underlying Table 7.3, each mechanism is entered independently with controls for demographics and family background and thus does not correspond directly with any of the models shown in Table 7.2. Consistent with Table 7.3, very little of CP effect on college attendance operates via biblical inerrancy or religious attendance. Instead, mechanisms closely related to academics, such as verbal ability, high-school curriculum, and high-school GPA prove to be the most important factors associated with CPs’ lower college attendance rates. Early pregnancy and early marriage, with modest indirect effects, may prove more important in studies of high-school or college completion, but they are relatively less significant mechanisms for college attendance. The findings in Table 7.3 should be tempered with those found in Table 7.2; the various mechanisms tested here are clearly theoretically and empirically associated with one another.

Table 7.3: Decomposition of CP Effect, by Mechanism (Adjusted for Demographics and Family SES and Structure)

	Verbal Ability	College Aspirations	HS Curriculum	HS GPA	Biblical Inerrantist	Religious Attendance	Early Pregnancy	Early Marriage
CP total effect	-0.29	-0.17	-0.24	-0.37	-0.18	-0.16	-0.21	-0.18
Direct effect	-0.14	-0.12	-0.1	-0.16	-0.15	-0.2	-0.14	-0.14
Indirect effect via mechanism	-0.15	-0.05	-0.14	-0.21	-0.03	0.03	-0.07	-0.04
% indirect effect	52	28	58	57	16	-21	33	23

In ancillary analyses (not shown), I tested both cross-product interactions and split-sample models to determine if the effect of CP affiliation differed importantly by race, region, or gender. Surprisingly, none of these analyses revealed significant variation along demographic lines. Coefficients did suggest that the strongest impact of CP affiliation is felt among Whites, but the differences by race were not significant. I also tested the amplified-resistance and transformed-resistance hypotheses, explained in Chapter 3, using both interactions and split-sample models by religious attendance. Once again, there were no significant differences, this time in the effect of CP affiliation by level of religious attendance. Church attendance may modestly compensate for other factors associated with CP affiliation, but these results provide no evidence that the association between CP affiliation and college attendance qualitatively differs depending on the level of embeddedness (as measured by religious attendance).

## **CONCLUSION**

Compared to other types of religious students, CPs attend college at lower rates. The gap is notable and represents several thousand young adults who do not have an opportunity to earn a college degree. CPs attend, however, at higher rates than do nonreligious students.

### **Stresses on the Pipeline**

The most important avenue by which CPs are disadvantaged in college attendance is through their relatively fewer *resources*. CPs come from poorer and less well-educated homes, as well as larger and less traditional families. These family-background variables explain a little over half of the CP gap in college attendance. When CPs relatively lower verbal aptitude is included as another example of resource deficiency, then the CP gap is completely explained, at least statistically.



There is little evidence in this study of direct *resistance* to schooling. CPs lower college aspirations (which are found among White CPs only) and lower levels of course taking may each play a small part in how CPs fail to make the transition to college, but very little was left for these mechanisms to explain after accounting for resource deficiencies. CPs' conservative Bible beliefs do not appear to be a major influence on CP college going. Perhaps the more widely used measure of biblical literalism (rather than the biblical inerrancy item I had available) would have demonstrated more robust effects. Once again, I find no evidence that CPs who are more deeply embedded in CP culture (i.e. attend religious service more frequently) are less likely to attend college than low attending CPs.

There is also very little support for the *ambivalence* theory. CPs' relatively higher church attendance affords a small advantage in college attendance compared to their less well-churched peers from other affiliations. This advantage is entirely cancelled out, however, by CPs' more conservative beliefs about the Bible, at least when comparing CPs to similarly attending peers. Future studies may fruitfully investigate other religious beliefs and practices that may influence CP educational outcomes. Those beliefs and behaviors which especially distinguish CPs from other religious groups—such as engaged orthodoxy or regular Bible study—merit consideration. Among alternative pursuits to college attendance, early family formation doesn't appear to play a significant role in CPs relatively lower rates of college going.

Surprisingly, the *demographic factors* of race, region, and gender do not seem to play much of a role here. While these are important to account for in any study of the CP gap, CP culture seems to operate similarly across racial, regional, and gender lines for college attendance. It may be that studies of high school drop-out or college completion will demonstrate a greater relevance for these demographic factors in the overall CP gap.

## **What Contributes to CPs' Lower Levels of College Attendance?**

Rather than overt, discursively articulated resistance to schooling, there was much more evidence in this chapter's study for resource deficiencies affecting college attendance. The most striking of these resource deficiencies is the relatively lower verbal ability of CPs. Note that verbal ability was found to be a significant mechanism even after accounting for many important socioeconomic and demographic factors. An earlier study (Sherkat 2010) linking CP affiliation and biblical literalism with lower levels of verbal ability across the life course was clearly not an anomaly. Here, using different data and observing a recent cohort across the transition to college, CPs relatively lower verbal ability explained nearly 40 percent of the (remaining) CP gap in college attendance. Certainly more work is needed to understand the link between CP affiliation and lower verbal ability.

Though GPA and course taking were entered into models after there was little of the CP gap left to explain, I find some evidence that at least part of the reason fewer CPs go to college is that they are simply less prepared. The results of the decomposition analysis in Table 7.3 show that part of the effect of CP affiliation on college attendance works indirectly through college preparation, even after adjustment for SES and demographics. Why? Perhaps anticollge elements in CP culture foster a subtle disregard for college-preparation behaviors in high school. Maybe it's not so much that young CPs overtly say, "College isn't worth the effort." But when faced with the choice to study harder or to pursue other interests, CP students, may on average, simply take the academic path of least resistance. And in so doing, they subtly, unknowingly, reduce their chances of going to college. Future research, especially qualitative research, will determine if my speculation is correct.

All the evidence taken together, this study deals a blow to the dominant conception of CP culture influencing the educational outcomes of CP youth in direct, overt ways. Granted, for some (mostly White) CPs, lower college aspirations appear to be part of the explanation for their lower levels of college attendance. But mostly CP culture appears to be operating via resource deficiencies, mechanisms that do not discursively connect CP religious beliefs and behaviors with educational outcomes. Much of the reason why CP youth do not attend college at the same rates as their non-CP peers is because CPs parents, grandparents, and so on, did not get as much education as their non-CP peers. Still, puzzles remain. CPs lower average verbal ability and lower likelihood of taking challenging high school courses were not easily explained by any of the hypotheses that I tested. These deficits demand further attention.

#### **LIMITATIONS**

This study has some limitations that should be considered in evaluating its findings. First, some of the predictors are difficult to accurately measure. Religious affiliation and religious attendance are both fluid through adolescence. While this study captures affiliation and attendance at a key point in time prior to the measurement of the outcome variable, there may be important variation due to changes in affiliation and/or attendance which took place after Wave I (when religious characteristics were measured, for some students as early as 7<sup>th</sup> grade) and the end of high school.

Second, because Add Health lacks a complete educational history, I was unable to characterize *patterns* of college going. CPs may also differ importantly in the timing of college attendance, where they attend college (both type of school and distance from home), and whether they are more likely to first attend community or junior college before attempting four-year college.

Third, CP affiliation is, of course, only a proxy for CP culture and may be capturing other factors associated with college attendance. I was not able to access more precise measures of cultural elements.

Fourth, I was unable to pursue some interesting findings related to the college attendance of the nonreligious.

Finally, though I found no evidence that CP college attendance differs importantly by level of religious attendance, race, region, or gender, I would have liked to have examined these relationships more closely as they relate to the role of congregations. I was only able to use individual race as a proxy for congregations which are likely divided by race.

## **Chapter 8**

### **Conclusion**

Conservative Protestants are in danger of being left behind educationally. CPs are leaking out of the educational pipeline at every stage, exhibiting higher rates of high school and college drop-out, and especially failing to make the transition to college. Despite evidence that the CP gap in educational attainment is persistent and substantively significant, CPs educational fortunes have received relatively little popular or scholarly attention. In this dissertation, I have sought to refocus the literature on the CP gap by beginning with a thorough descriptive analysis, offering a more comprehensive theoretical framework for studying the gap, and conducting a thorough empirical analysis of CP gap in the transition to college.

#### **SUMMARIZING THE EVIDENCE REGARDING THE FOUR THEORETICAL AVENUES**

Among the most important empirical findings in this dissertation is that the CP gap in overall attainment is driven in part by a particularly large deficit in college matriculation. CPs simply don't attend college at the same rates as their peers from other religious traditions. The dominant explanation for CPs lack of attainment has been that aspects of CP culture may lead CP youth or their parents to resist furthering CP students' education. Underlying nearly every explanation offered in the literature is the idea that ideological and behavioral elements of CP culture cause the gap. Building on previous literature, I cast my theoretical net widely to suggest four conceptually distinct, but not mutually exclusive, avenues of CP cultural influence. CP culture may contribute to the CP gap through resource deficiencies, educational resistance, educational ambivalence, or demographic factors.

Directing the bulk of my empirical investigation toward the CP gap in college attendance, I find that White CPs have lower college aspirations compared with their non-CP religious peers, that CPs take less challenging courses in high school, and that resource deficiencies largely explain why CPs are less likely to make the transition to college.

My findings offer the strongest support for the resource deficiencies theory. Half of the CP gap in college aspirations was explained by resources and the gap in college attendance was rendered statistically insignificant after accounting for family SES and verbal ability (likely related to resources). Notably, resource deficiencies were not effective in explaining CPs penchant for taking less challenging courses, but none of the other theories fared any better. More about CP course taking below.

Perhaps the most important finding overall from this dissertation is that the educational resistance theory fared poorly in explaining why CPs are less likely to attend college. I'm not ready to declare the resistance theory moribund, but it will require substantial qualification in order to be rehabilitated. The prevailing theory that CP youth are avoiding college (and the effort that it takes to get there) because they are getting anticollege messages from their religious communities simply isn't supported. And the transition to college, a conscious choice and effort-driven endeavor, is exactly the kind of educational outcome the resistance theory should fare best at explaining.

To be fair, the resistance theory is supported by a couple of findings. First, a large group of CPs (White CPs) don't want to attend college as much as their non-CP peers, and this lack of enthusiasm isn't completely explained by resource deficiencies. But, it may be that these differences arise because of uncontrolled factors associated with CP affiliation and college aspiration. Moreover, against the predictions of resistance theory, White CPs college aspirations are neither due to their relatively more conservative Bible

beliefs nor do White CPs who frequently attend religious services exhibit stronger signs of resistance. Second, resistance theory correctly predicts that CPs would take less challenging course work but fare equally well in GPA. But again there were counter-findings that militate against resistance theory. CPs don't appear to be avoiding upper-level science, a pattern consistent with a resistance ideology, but simply avoiding more difficult coursework in every subject.

The educational ambivalence and demographic factors theories offered little help in explaining the CP gap. There was one important race interaction--the aforementioned lower college aspirations of White CPs--but otherwise I found no evidence that the impact of CP affiliation varies by race, gender, or region. CPs relatively higher levels of religious attendance do appear to help compensate for their tendency toward taking a less challenging curriculum, as well as increasing their chances of making the transition to college. But I found no evidence that religious attendance has a transformative effect on any antieducational elements in CP culture. Somewhat surprisingly, early family formation, whether measured prospectively as an aspiration or retroactively as an actual mechanism, does not help explain CPs lower rates of college attendance. There may be other alternative life pursuits that deflect CPs away from college, but I find little evidence that family formation is one of them.

### **EVALUATING COGNITIVE DEPTH**

Throughout this dissertation, I have sought to evaluate the cognitive depth of the various mechanisms I tested. As explained in Chapter 3, cognitive depth refers to relative level of discursive cognitive activity involved in a particular action or expression of an attitude. Highly discursive mechanisms involve more conscious, deliberative thought and support a higher degree of articulation when a respondent explains "why" she took a

certain action or expressed a certain attitude. Decisions about college attendance are usually highly discursive because of the amount of initiative and deliberation required to select, fund, and get accepted to a college. More subversive mechanisms, on the other hand, involve visceral responses or habituated behaviors. A respondent might not be able to explain why she completes her assignments or stays out of trouble in school, and she may be even less likely to explicitly connect her pro-social behaviors to her attendance at religious services or affiliation with a certain religious denomination.

The value of thinking about cognitive depth is in understanding how CP culture may influence educationally relevant attitudes and behaviors. This understanding can inform future studies, and especially aid qualitative researchers in knowing how to focus their inquiry. For instance, if CP students are not attending college primarily because they have resource deficiencies relative to their non-CP peers, a qualitative researcher wouldn't expect CP students to readily connect their religious affiliation with resource deficiencies and subsequently lower odds of attending college (and such a connection might indeed be spurious). Two of the key mechanisms uncovered in this dissertation, however, course taking and college aspirations, are more discursive in nature and qualitative work exploring these subjects with CP students might yield useful information about why (White) CPs don't want to attend college as frequently as non-CP peers or why all CPs (on average) choose to take less challenging courses.

#### **INTERPRETING THE FINDINGS AND IDEAS FOR FURTHER RESEARCH**

In Chapter 2, I found evidence that, even among the latest cohort of CPs, CP youth are more likely than mainline Protestant youth to drop out of high school or college. Each of these other ways CPs are leaking out of the educational pipeline also



invite scholarly attention, though the mechanisms involved may be very different from those associated with CPs lower rates of college matriculation.

Chapter 3 offered evidence that White CPs have lower college aspirations compared with other religious peers. These lower aspirations, however, ultimately held little explanatory power for why CP high school graduates are less likely to attend college. It may be that some of the CPs with lower aspirations dropped out of high school and were not included in the Chapter 7 analysis. Or perhaps White CPs are more likely to “hedge” when saying whether or not they would like to attend college? Understanding exactly why White CPs express less enthusiasm for attending college remains to be explored in further studies.

More puzzling is why CPs take less challenging courses, regardless of race, gender, region, family structure or socioeconomic situations. They are not obviously avoiding more challenging courses for ideological reasons, as we might expect if they refused to take upper-level science or if avoidance were explained by CPs conservative Bible beliefs. Avoidance of challenge because of poor early preparation (falling behind) should be measured by verbal ability, parent’s education, and, to a lesser degree, college aspirations. What else could be going on? Below, I suggest a few possibilities for further investigation.

CPs may be disproportionately concentrated in schools where upper-level courses are not offered to many students, if they are offered at all. Or perhaps the courses are offered but few students in the school take advantage of them. Either of these kinds of school effects would be resource related explanations that might not be captured by SES. These hypotheses could be tested using Add Health. Another intriguing possibility that could be tested in Add Health is that CPs are avoiding not just science but also math and foreign language for ideological reasons. Some of the early literature on the CP gap

suggested that even something as ideological neutral as math might be “feared” by CPs (Darnell and Sherkat 1997). Foreign language could also be problematic if CP culture engenders a xenophobic streak. Add Health’s companion AHAA study includes measures of the curriculum content in various courses. Some of the Add Health schools use curriculum published by CP scholastic presses, with content intended to deal with issues like evolution from a CP perspective. If CPs readily take these “CP friendly” upper-level courses, but CPs with similar verbal ability and SES are less likely to take the same level courses when a more “CP hostile” curriculum is used, then we would have some evidence for CP resistance in course taking.

As with college aspirations, the CP deficit in course taking does little to help explain CPs relatively lower rates of college attendance, net of demographics, SES, and verbal ability<sup>18</sup>. One idea that could be explored somewhat with Add Health, but especially with the NLSY97, is that CPs less challenging curriculum doesn’t impact whether they attend college per se, but it does affect the kind of colleges CPs attend. CPs may be more likely to attend two-year schools, less competitive colleges, colleges closer to home, or to take less traditional pathways to and through college. All of these ideas should be explored in further studies.

Another area that invites inquiry is the role of CPs’ parents in determining their educational fortunes. Note that this is an area that (other than family demographics and socioeconomic status) I have intentionally left unexplored. My theorizing thus far has assumed that congregations would be the primary way that CP ideas about education would be transmitted and I included parents as part of the religious community. It may be, however, that something about CP parenting styles is important in influencing the

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<sup>18</sup> Recall that, while the decomposition in Table 7.3 showed course taking to have a strong indirect effect, Table 7.2 indicated that, by the time course-taking was included in the models, there was no statistically significant variation left to be explained in the CP gap.

educational outcomes of CP students, apart from the direct influence of congregations. If CP students who are not growing up in a CP home (for any number of reasons, including a student adopting a CP affiliation on her own, apart from her parents own religious affiliation or lack of affiliation) fare better than CP students who grow up in CP homes, we would have evidence of a distinctive “CP parental effect” that would invite further study into CP parenting concerning education. Add Health allows a test of the CP parental effect hypothesis; certainly, this is a natural next step in investigating the CP gap. Studies of CP parenting may be especially fruitful in explaining why CPs have lower levels of verbal ability (see also Sherkat 2010), a deficit I have conceptualized as related to resources, but which may be better understood in light of interactions between children and parents that take place earlier in the child’s development.

Whatever studies of CP parenting may find, possible congregational influences should still be examined. Any future studies on the CP gap—or the CP college-attendance gap in particular—that can characterize childhood patterns of religious affiliation and practice will be able to directly test the importance of “duration and dose” of religious exposure on educational desires. Also, given evidence that at least some CP outcomes differ importantly by race, future studies should carefully examine the role of congregations in the shaping of college aspirations. In this study, I was only able to use individual race as a proxy for congregations which are likely divided by race. Study designs which use congregations as a primary sampling unit and include sufficiently large in-congregation samples will be able to correctly specify congregational effects. And though I found no evidence of gender differences here, future studies should also pay careful attention to how gendered messages about education may differ across congregations. And of course, CP affiliation isn’t really the same as CP culture, and the culture of any group is full of complexities and subtleties. Future studies with more

precise measures of CP cultural elements or with rich interview data can delve much deeper into precisely how CP culture works to influence educational attainment.

Speaking of culture, a final word on that subject is fitting. I have not, as I said in the introduction, attempted here to decisively answer whether or not CP culture is to “blame” for the CP gap. In fact, instead of pitting culture against structure, I have explicitly defined all four of the theoretical perspectives I tested as cultural in their ultimate orientation. Some will find this broad use of culture problematic. Certainly important insights are to be gained from distinguishing cultural causes from more structural causes but this was not my approach. However, in my analyses it is possible to characterize some demographic and socioeconomic factors as structural, as opposed to cultural. In that case, I have found little evidence that CP culture is at work in perpetuating the CP gap. Nonetheless, I contend, that even these more structural features are the result of culture, even if culture did its work over 150 years ago. Why do CPs still have fewer resources than their mainline Protestant cousins? Why are CP congregations divided by race? There are cultural answers at the bottom of these structural inequalities. Whether these cultural forces are purely historical or currently active remains for future studies to uncover. This dissertation has pointed the search for causes of the CP gap in the direction of resource deficiencies. Resource deficiencies are certainly a less controversial target than CPs’ ideas and beliefs, at least for policy makers who wish to help CPs to keep from being left behind.

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