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Mexican Ancestry, Immigrant Generation, and Educational Attainment in the United States

Stephen L. Morgan,[a] Dafna Gelbgiser[b]

(a) Johns Hopkins University and Cornell University, (b) Cornell University

Abstract: After introducing alternative perspectives on assimilation and acculturation, we use the 2002-2012 waves of the Education Longitudinal Study to model differences in educational attainment for students sampled as high school sophomores in 2002. We focus on patterns observed for the growing Mexican immigrant population, analyzing separately the trajectories of 1st, 1.5^{th}, 2nd, and $3^{rd}+$ generation Mexican immigrant students, in comparison to $3^{rd}+$ generation students who self-identify as non-Hispanic whites and students who self-identify as non-Hispanic blacks or African Americans. The results suggest that the dissonant acculturation mechanism associated with the segmented assimilation perspective is mostly unhelpful for explaining patterns of educational attainment, especially for the crucial groups of 1.5^{th} and 2nd generation Mexican immigrant students. Instead, standard measures of family background can account for large portions of group differences in bachelor's degree attainment, with or without additional adjustments for behavioral commitment to schooling, occupational plans, and educational expectations. The broad structure of inequality in the United States, as well as the rising costs of bachelor's degrees, should be the primary source of concern when considering the prospects for the incorporation of the children of recent Mexican immigrants into the mainstream.

FOR scholars concerned about the relative standing of recent immigrants to the United States and their children, three common observations pose grave concerns, each of which is supported by enough literature to now constitute received wisdom in the social sciences. First, incorporation into the mainstream is typified by the standard of living associated with those who hold middle-class jobs. Second, middle-class jobs are reserved frequently for those who obtain bachelor's degrees. Third, the direct costs of bachelor's degrees are escalating sharply, making college an increasingly expensive investment.

Although some immigrant groups have family resources to meet the steep direct costs of higher education, the largest and fasting growing group—recent immigrants from Mexico and their children—are resource constrained. The general literature on educational attainment shows that many students from families with limited resources are unaware of available financial aid programs. Immigrants from Mexico and their

children are unlikely to be any more aware of financial aid programs than students of otherwise similar socioeconomic standing.

Alongside consideration of these present realities, scholars of immigrant incorporation continue to debate the validity of more specialized narratives, most prominently the segmented assimilation prediction first proposed by Portes and Zhou (1993) and later developed in full form by Portes and Rumbaut (2001).[1] In brief, this line of argument maintains that groups such as Mexican immigrants face a hostile reception and are insufficiently supported by ethnic enclaves. In response, many adolescents and young adults engage in "dissonant" patterns of acculturation, typified by a

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[1]Portes and his colleagues have continued to develop the segmented assimilation perspective in more recent work (see Portes and Rumbaut 2006; Portes and Fernández-Kelly 2008; Portes and Rivas 2011; Haller, Portes, and Lynch 2011a, 2011b), but we regard the articulation offered first in Portes and Zhou (1993) and then developed in full detail in Portes and Rumbaut (2001) to be the subject of ongoing debate.

comparative devaluation of bilingualism, strained relationships with their Spanish-speaking parents, a faltering commitment to schooling in adolescence, and an emergent interest in deviance during the transition to adulthood. As a result, a substantial proportion of the children of Mexican immigrants can be expected to assimilate downward to a subordinate status, approaching standards of living more typical of those who self-identify as black or African American.

The persuasiveness, and even the basic form, of the segmented assimilation prediction continues to be vigorously debated, with its current proponents focusing on results from the Children of Immigrants Longitudinal Study, which sampled students typically aged 14 in Ft. Lauderdale and San Diego in the early 1990s, with a follow-up survey 10 years later (see Haller et al. 2011a, 2011b; Portes and Fernández-Kelly 2008; Portes and Hao 2002; Portes and Rumbaut 2006; Portes and Rivas 2011). Opponents of the prediction have considered broad historical patterns, national demographic data, and also local samples from other areas, such as a comprehensive set of results on children of immigrants resident in the New York City metropolitan area (see Alba, Kasinitz, and Waters 2011; Alba and Nee 2003; Perlmann 2005, 2011; Waldinger and Feliciano 2004; Waters et al. 2010).

Beyond the dissonant acculturation conjecture about the children of Mexican immigrants, a second stream of literature highlights an additional mechanism that impedes the acquisition of higher education among many prospective college students who self-identify as Hispanic or Latino/Latina (i.e., not just those who claim Mexican ancestry). Turley (2006, 2009) and Desmond and Turley (2009) argue that familism among Hispanic adolescents and young adults may discourage them from taking advantage of available four-year college opportunities and predispose them to enroll in local community colleges from which comparatively few students then transition to and complete bachelor's degree programs. Ovink and Kalgorides (2014) challenge this conclusion, with more recent results using the same data source we also consider in this article. Ovink (2014a, 2014b) makes the case, based on results from in-depth interviews, that familism operates in gender-differentiated fashion, such that Hispanic young women benefit from extra social sup-

port that encourages them to obtain bachelor's degrees.

In this article, we analyze the 2002 to 2012 waves of the Education Longitudinal Study (ELS) to model patterns of high school graduation and postsecondary education for students sampled as high school sophomores in 2002. We first offer results for the full cohort of students, estimating educational attainment patterns for 20 distinct groups of students formed by a constrained cross-classification of self-identified race-ethnicity and immigrant generation. We then focus on patterns observed for the growing Mexican immigrant population, analyzing separately the trajectories of 1st, 1.5^{th}, and 2nd generation Mexican immigrant students, in comparison to three specific groups of students who are neither recent immigrants nor the children of recent immigrants. So-called $3^{rd}+$ generation students, we consider separately students who self-identify as Mexican by ancestry, students who self-identify as non-Hispanic whites, and students who self-identify as non-Hispanic blacks or African Americans.

One point of contention when considering Mexican immigrants and their children is how to fit into ongoing debates any results that are observed for $3^{rd}+$ generation Mexican immigrants, operationalized as those who claim Mexican ancestry but also report that both of their biological parents were born in the United States. This heterogeneous group includes a substantial number of individuals with ancestors who lived in the area bounded by the current borders of the United States before they were demarcated as such. Unfortunately, very few studies allow for any subdivision of this $3^{rd}+$ generation, and we will not be able to do so in this article. Accordingly, our main conclusions will be weighted toward the evidence we present on recent Mexican immigrants—especially 1.5^{th} and 2nd generation Mexican immigrants—because no scholars appear to question their relevance to the dissonant acculturation conjecture or current concerns about the pace of incorporation.[2] We report results for $3^{rd}+$ generation Mexican immigrants as well but

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[2]Telles and Ortiz (2008) and Jiménez (2010) explain that generation effects are particularly difficult to parse for Mexican immigrants when widely dispersed cohorts are mixed together. Feliciano (2005) presents evidence on the selectivity of cohorts of Mexican immigrants, suggesting that the particular pattern of selection that has unfolded in recent decades has decreased rates of college entry since

then offer conclusions that are conditional on how one chooses to regard this group's relevance to ongoing debates.

Methods

Data

Data are drawn from the ELS, 2002 to 2012. The base-year ELS sample is representative of all U.S. 10th-grade students enrolled in public and private schools in spring 2002. Unlike its predecessor the National Education Longitudinal Study of 1988, students with limited English proficiency were included in the sampling frame. Sampled students were judged eligible to take the achievement tests and complete the student questionnaire if they had received three years of instruction primarily in English or, according to the ELS base-year user's guide, if the school staff "judged or determined that they were capable of participating." For the base year, 17,591 students were sampled, and 87 percent of these students completed the student questionnaire. Only 44 sampled students were excluded from participation based on the severity of their limited English proficiency.

Analytic Sample

The ELS incorporates an oversample of Hispanic students and Asian students to enable more precise estimation. Among the original 2002 base-year students, 84 percent participated in the 2012 third follow-up. Our models include the 10,895 respondents for whom third follow-up educational attainment data are available, weighted to adjust for base-year participation, attrition across the waves, and item-specific nonresponse for educational attainment.

Measurement of Immigrant Generation

A parent questionnaire was completed by 85 percent of students' parents or legal guardians. The respondent, usually a parent (and most commonly the student's mother), was asked, "Was

the 1960s. For these reasons, we confine our analysis to a single cohort (with most students born in 1986).

your tenth grader's mother born in the United States (that is, any of the fifty states or the District of Columbia), in Puerto Rico, or in another country or area?" Respondents who selected "in another country or area" or "in Puerto Rico" were then asked, "How many years ago did she come to the United States to stay?" After answering these questions, respondents to the parent questionnaire were then asked the same questions about the 10th grader's biological father and about the 10th grader. Standard indicators of immigrant generation can be constructed from these responses. Across the full ELS sample, 2,838 students had mothers born outside of the United States, 2,794 students had fathers born outside of the United States, and 1,388 students were themselves born outside of the United States.

If both parents were born inside the United States, we coded the student as a $3^{rd}+$ generation immigrant. If either parent was born outside of the United States, but the student was born inside the United States, we coded the student as a 2nd generation immigrant. If the student and one or more parents was born outside of the United States, we coded the student as a 1.5^{th} generation immigrant if the student entered the United States by the age of six and as a 1st generation immigrant if the student entered the United States after the age of six.

For the 15 percent of the sampled students for whom a parent questionnaire was not completed, the ELS also includes a series of questions posed to students that can be used to separate students into those who are more and less likely to be themselves immigrants or the children of immigrants. On their own surveys, students were asked, "Is English your native language (the first language you learned to speak when you were a child)?" along with a follow-up question for those who answered "yes": "What is your native language?" (20 response categories with Spanish first, followed by 18 other languages or language groups, and an "other" category). Although this question is indirect, we use it, as explained in the results section, to develop an exhaustive coding of immigrant generation by race-ethnicity for a subset of our results, mindful that what is deemed a "native language" may be a poor indicator of immigrant status.

Measurement of Race-Ethnicity

Self-identified race-ethnic categories are comparatively extensive for the ELS, introduced by a filter question: "Are you Hispanic or Latino/Latina?" Students who answered yes to this question were then asked, "If you are Hispanic or Latino/Latina, which one of the following are you? (Mark one response)": (1) Mexican, Mexican American, Chicano; (2) Cuban; (3) Dominican; (4) Puerto Rican; (5) Central American (Guatemalan, Salvadoran, Nicaraguan, Costa Rican, Panamanian, Honduran); and (6) South American (Colombian, Argentinian, Peruvian, etc.). All students were then asked, "Please select one or more of the following choices to best describe your race. (Mark all that apply)": (1) White, (2) Black/African American, (3) Asian, (4) Native Hawaiian or Other Pacific Islander, and (5) American Indian or Alaska Native. This question generated 64 distinct combinations of responses.[3]

Given the range of response possibilities, we coded race-ethnicity by imposing a hierarchy that reflects the focus of this article as well as the structure of the questionnaire. Students who indicated that they were "Hispanic or Latino/Latina" were coded as Hispanic, regardless of any other subsequent responses to the racial self-identification question that follows it.[4] If students selected "Black/African American" and had not been designated Hispanic by their responses to prior questions, we coded them as black, regardless of whether they expressed a multiracial identity by selecting additional categories. We made analogous decisions for all non-Hispanics who subsequently selected Asian, Native Hawaiian or Pacific Islanders, or American Indian or Alaskan Native.

Although we use broad categories of race-ethnicity in this article, Supplementary Appendix Table S1 (available on the journal website and the authors' personal websites), provides a breakdown across more specific racial-ethnic identities for our focal groups. For example, of the 265 students we categorized as 2nd generation immigrants who claimed Mexican ancestry, 144 declined to choose a subsequent racial category (and, thereby, implicitly accepted "Mexican, Mexican American, Chicano" as their only racial-ethnic identity when forced to choose from among those offered to them). Of the remaining students, 86 selected the racial category of "White," 18 chose "American Indian or Alaskan Native," and 17 were spread across eight additional multiracial–multiethnic categories. The distributions in Table S1 make it clear that each of the categories for race-ethnicity that we utilize in this article should be interpreted as internally heterogeneous but also consistent with other broad categorizations adopted in this literature.

Additional Variables

Our outcome variables are standard measures used in the literature on educational attainment: timely high school graduation, enrollment at any postsecondary educational institution, and receipt of a bachelor's degree. We introduce the details of most of our additional measures as we utilize them in the subsequent analysis. These variables include 32 separate measures of behavioral commitment to schooling (in three scales based on independent reports from teachers, students, and parents) as well as family structure and the five standard dimensions of socioeconomic status. In our extended models, we will use standardized test scores from the 10th and 12th grades, cumulative grade point average by the 12th grade, and educational expectations in both the 10th and 12th grades.

Two predictor variables are unique to this article and others produced by our research group. For both the 10th- and 12th-grade questionnaires, students were presented with a traditional open-ended occupational plans prompt: "Write in the name of the job or occupation that you expect

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[3]An ethnicity question for Asians was offered as a follow-up to the race question: "If you marked Asian in Question 17, which one of the following are you? (MARK ONE RESPONSE)": (1) Chinese, (2) Filipino, (3) Japanese, (4) Korean, (5) Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, Thai, Burmese), and (6) South Asian (Asian Indian, Bangladeshi, Sri Lankan). We did not use these responses in this article because Asian immigrants are not the focus of our analysis. In addition, we include the small number of Native Hawaiian and Other Pacific Islanders in our "Asian" category, mindful that this decision is reductive but more reasonable than other possibilities.

[4]Many of these students, in fact, declined to answer the race question that followed the Hispanic ethnicity/ancestry questions (see Supplementary Appendix Table S1).

or plan to have at age 30." In this article, we eschew two typical codings of these plans. For the first, which is produced by contractors to the U.S. Department of Education, the complexity of these free-form responses is reduced to a categorization of 17 broadly defined occupational groups (typically close to what are known as census "major" occupational groups). For the second coding, the verbatim responses are converted into a score on a unidimensional metric that reflects either the occupational prestige of one of the occupations listed or the average combined income and education of present incumbents of one of the occupations listed. In the status attainment tradition, this latter coding of occupational plans has typically been considered an operationalization of either latent achievement motivation or status aspirations tempered by realism (see Haller and Portes 1973; Sewell, Haller, and Portes 1969; Spenner and Featherman 1978).

Instead, we code occupational plans in a way that allows us to capture their inherent uncertainty and their relationship to modal patterns of educational requirements for specific jobs. As explained in Morgan et al. (2013a, 2013b) and Morgan, Gelbgiser, and Weeden (2013), verbatim responses to the plans prompt, when extracted from restricted-access data records, can be coded to 1,220 occupational categories to capture detailed information (specific job titles), extended information (the listing of multiple jobs), and contradictory information (the listing of multiple jobs with divergent characteristics). After performing this coding of the verbatim responses, we matched all jobs listed to the educational requirements of detailed jobs, as specified in the U.S. Department of Labor's O*NET database. For the 10th grade, this procedure yielded a five-category variable, which we label Educational Requirements of Expected Jobs (see Table 2 in the results section for the categories). For the 12th grade, we created an analogous five-category measure of occupational plans, which we then elaborated using a measure only available for the 12th-grade student questionnaire: students' own perceptions of the educational requirements of their planned jobs, which were elicited in response to a follow-up question posed immediately after they provided their verbatim occupational plans. For the 12th grade, we then have a seven-category variable labeled Beliefs about the Educational Re-

quirements of Expected Jobs (see Table 2 in the results section for the categories).

Results

Patterns of Educational Attainment by Immigrant Generation and Race-Ethnicity

Table 1 presents patterns of educational attainment for all 10,895 respondents in the analytic sample, separately for 19 groups defined by immigrant generation and race-ethnicity (as well as a small 20th group of respondents with missing race-ethnicity). As shown in the final row of the table, 88 percent of 2002 10th graders graduated high school on time in 2004. By 2012, 85 percent had enrolled in some form of postsecondary education, including trade schools, certificate programs, and traditional two-year and four-year colleges. Rates of bachelor's degree receipt were much lower. Only 35 percent of 2002 high school sophomores had received a bachelor's degree 10 years later (i.e., within 8 years of on-time high school graduation).

Patterns of educational attainment are strongly related to immigrant generation and race-ethnicity. The 19 row labels indicate the specific composition of each group, and our six focal groups in this article are placed in boldface type. We refer to these six groups with simplified labels in the remainder of the article. For example, respondents classified by the full label as "Mexican, Mexican American, or Chicano, 1st generation" are referred to as "1st generation Mexicans" hereafter, as is common in this literature.

Notice that the four focal groups of Mexican immigrants (groups 1 to 4) are separated from five other Hispanic immigrant groups differentiated by ancestry and generation (groups 5 to 8 and 11). Two additional groups were formed for all Hispanic students with missing parent reports of immigrant generation. These groups in rows 9 and 10, which include some students who claim Mexican ancestry, are differentiated by whether students report that Spanish is their native language. Without making what might be regarded as an arbitrary allocation assumption, we cannot sort members of these two small groups into 1st, 1.5^{th}, or 2nd immigrant generations relative to

Table 1: Educational Attainment Patterns by Race-Ethnicity and Immigrant Generation

	Proportion High School Completed on Time	Proportion Ever Enrolled Post-secondary Education	Proportion Bachelor's Degree by 2012	Raw N	Weighted Percentage
1. Mexican, Mexican-American, or Chicano, 1st generation	**0.72** (0.04)	**0.64** (0.04)	**0.13** (0.03)	**115**	**1.36**
2. Mexican, Mexican-American, or Chicano, 1.5^{th} generation	**0.76** (0.05)	**0.71** (0.05)	**0.14** (0.04)	**78**	**0.97**
3. Mexican, Mexican-American, or Chicano, 2nd generation	**0.78** (0.03)	**0.82** (0.02)	**0.19** (0.02)	**265**	**3.11**
4. Mexican, Mexican-American, or Chicano, $3^{rd}+$ generation	**0.81** (0.02)	**0.79** (0.02)	**0.21** (0.02)	**408**	**4.21**
5. Puerto Rican, Cuban, or Dominican, 1st or 1.5^{th} generation	0.74 (0.07)	0.88 (0.05)	0.16 (0.06)	43	0.47
6. Puerto Rican, Cuban, or Dominican, 2nd generation	0.79 (0.04)	0.87 (0.04)	0.31 (0.05)	84	0.75
7. South and Central American, 1st or 1.5^{th} generation	0.85 (0.04)	0.89 (0.03)	0.23 (0.05)	84	0.76
8. South and Central American, 2nd generation	0.77 (0.05)	0.92 (0.03)	0.30 (0.06)	64	0.51
9. Hispanic ethnicity of any type, generational status missing but Spanish is the student's native language	0.66 (0.06)	0.81 (0.05)	0.15 (0.04)	66	0.78
10. Hispanic ethnicity of any type, generational status missing but Spanish is not the student's native language	0.67 (0.05)	0.73 (0.05)	0.15 (0.04)	88	0.92
11. Hispanic ethnicity other than Mexican, Mexican-American or Chicano, $3^{rd}+$ generation	0.81 (0.03)	0.86 (0.03)	0.19 (0.03)	151	1.35
12. Asian or NHOPI non-Hispanic, 1st or 1.5^{th} generation	0.94 (0.01)	0.94 (0.01)	0.48 (0.02)	407	1.61
13. Asian or NHOPI non-Hispanic, 2nd generation or generational status missing but English is not the student's native language	0.92 (0.01)	0.93 (0.01)	0.54 (0.02)	565	2.24
14. Asian or NHOPI non-Hispanic, $3^{rd}+$ generation or generational status missing but English is the student's native language	0.86 (0.02)	0.81 (0.03)	0.42 (0.03)	243	1.34
15. Black or African-American non-Hispanic 1st, 1.5^{th}, 2nd generation or generational status missing but English is not the student's native language	0.89 (0.03)	0.95 (0.02)	0.34 (0.04)	156	1.42
16. Black or African-American non-Hispanic, $3^{rd}+$ generation or generational status missing but English is the student's native language	**0.83** (0.01)	**0.82** (0.01)	**0.20** (0.01)	**1,335**	**13.81**
17. American Indian or Alaskan Native non-Hispanic, All generations	0.79 (0.03)	0.72 (0.03)	0.18 (0.03)	219	2.45
18. White non-Hispanic, 1st, 1.5^{th}, or 2nd generation or generational status missing but English is not the student's native language	0.92 (0.02)	0.92 (0.02)	0.49 (0.03)	294	2.52
19. White non-Hispanic, $3^{rd}+$ generation or generational status missing but English is the student's native language	**0.92** (< 0.01)	**0.87** (< 0.01)	**0.41** (0.01)	**6,166**	**58.90**
20. Missing race, all generations	0.88 (0.04)	0.82 (0.05)	0.37 (0.06)	64	0.52
Total	0.88	0.85	0.35	10,895	100.00

Notes: Standard errors in parentheses. Data are weighted by the panel weight constructed by the data distributors (f2pnlwt), which adjusts for base-year nonparticipation and subsequent attrition, multiplied by an adjustment weight that we created to account for missing data on educational attainment.

the $3^{rd}+$ immigrant generation, which is often referred to as "native." Instead, we have decided to focus on six groups that we can precisely define and measure.[5]

We have selected two $3^{rd}+$ generation groups for comparison: white and black non-Hispanic students (groups 16 and 19). These two groups represent alternative comparison groups for the segmented assimilation literature, against which the incorporation of alternative immigrant groups are evaluated. Black $3^{rd}+$ generation students have levels of bachelor's degree receipt that are less than half as high as those of whites, with similar but less substantial differences in on-time high school graduation and overall rates of post-secondary enrollment of any type.

Now consider the four focal groups of students who claimed Mexican ancestry. Students in the broad and heterogeneous $3^{rd}+$ generation have educational profiles very similar to the focal comparison group of $3^{rd}+$ generation non-Hispanic blacks. Any variation between these two groups (4 and 16) is consistent with sampling error, as revealed by the standard errors reported in parentheses. A prudent interpretation of 2nd generation Mexican immigrants is that they too have patterns of educational attainment that are equivalent to the comparison group of black students, even though the point estimates of on-time high school graduation and bachelor's degree receipt are lower. Finally, 1st and 1.5^{th} generation Mexican immigrants have educational attainment patterns that suggest lower levels of attainment on each of the three measures (although because these groups are smaller, sampling variation is more of a concern, as reflected in the comparatively large estimated standard errors).

Overall, all four groups of Mexican immigrants as well as the non-Hispanic black comparison group have lower levels of educational

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[5]Nonetheless, we should note that both of these groups have low levels of reported educational attainment that are closer to those of 1st and 1.5^{th} generation Mexican immigrants than to any other group of Hispanic students. Given that the majority of these two groups do in fact claim Mexican ancestry, it would be tempting to allocate them across immigrant generations based on student reports of socioeconomic status. We have decided not to do so, in part because a later claim—that socioeconomic status is the most important predictor of between-group patterns of bachelor's degree attainment—would be compromised in the eyes of a fair critic by allocating in this fashion.

attainment, and especially bachelor's degree attainment, than the non-Hispanic white comparison group. Before carrying on to directly model bachelor's degree attainment in the remainder of this article, we should note one additional pattern in the table. Notice that for many comparisons by immigrant generation within categories of race-ethnicity, recent immigrants attain higher levels of education (e.g., groups 12 and 13 vs. 14, group 15 vs. 16, and group 18 vs. 19). As shown by Farley and Alba (2002) and Crosnoe and Turley (2011; see also Crosnoe 2005, 2006), this pattern is less pronounced for Mexican immigrants to the United States. And for Hispanic respondents to the ELS, the pattern is found only for a comparison of South and Central American immigrants (i.e., group 7 vs. 8). For both Mexican immigrants and immigrants in the category of "Puerto Rican, Cuban, or Dominican," this pattern is reversed, although again sampling variation associated with the group estimates is substantial.

Models of Bachelor's Degree Attainment

For the remainder of this article, we focus on the receipt of bachelor's degrees. Group differences are clearly demarcated at this level of educational attainment, which is also a common life course event after which individuals destined for middle-class jobs enter the labor force. Our primary question in this section is the following: can we predict, based on observed characteristics measured in high school, why the bachelor's degree attainment rate of Mexican immigrants lags the rate of non-Hispanic whites and instead resembles the rate of non-Hispanic blacks?

Group differences in predictors. Table 2 presents group differences in two sets of measures that the literature suggests determine subsequent patterns of educational attainment, first behavioral commitment and engagement with schooling and second forward-looking beliefs about trajectories through the educational system and into occupations. The first three rows present group-specific means of behavioral commitment to schooling, reported separately by teachers, students, and parents at baseline data collection in the 10th grade. Each of these scales is based on underlying items, presented in Table 3, that are then factor scored. Each scale is internally

Table 2: Commitment and Beliefs about the Educational Requirements of Expected Jobs for Six Focal Groups Defined by Race-Ethnicity and Immigrant Generation

	Mexican Ancestry				Black Non-Hisp.	White Non-Hisp.
Generation:	1st	1.5^{th}	2nd	$3^{rd}+$	$3^{rd}+$	$3^{rd}+$
Commitment (10th grade)						
Teacher-reported (12 indicators)	−0.27	−0.29	−0.14	−0.30	−0.39	0.15
Student-reported (13 indicators)	0.05	−0.26	−0.09	−0.34	−0.21	0.10
Parent-reported (7 indicators)	−0.28	−0.31	−0.20	−0.25	−0.32	0.13
Educational requirements of expected jobs(10th grade)						
College or more	0.21	0.31	0.35	0.36	0.42	0.45
High school or less	0.07	0.21	0.09	0.14	0.11	0.12
High school *and* college	0.01	0.03	0.02	0.03	0.05	0.04
Don't know occupation	0.40	0.29	0.38	0.35	0.25	0.31
Missing	0.32	0.16	0.16	0.12	0.18	0.08
Beliefs about the educational requirements of expected jobs (12th grade)						
Certain and correct						
College or more	0.28	0.39	0.38	0.33	0.41	0.43
High school or less	0.04	0.05	0.03	0.04	0.03	0.02
Uncertain but specific						
High school *and* college	0.02	0.05	< 0.01	0.03	0.03	0.02
Uncertain						
Don't know occupation	0.37	0.28	0.33	0.31	0.27	0.29
Certain but possibly incorrect						
Expected job requires a high school degree or less, but the student believed college is required	0.15	0.12	0.12	0.17	0.12	0.14
Expected job requires a college degree or more, but the student believed only a high school degree is required	0.05	0.07	0.09	0.10	0.11	0.08
Missing	0.09	0.04	0.05	0.03	0.04	0.03
Unweighted N	115	78	265	408	1,335	6,166

Note: See Table 1.

consistent—with interitem estimated reliabilities of 0.77, 0.70, 0.79, respectively—and is scaled to have a mean of 0 and standard deviation of 1 for the full analytic sample.[6]

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[6]The scales are substantially left skewed—teacher reported (min –3.5, max 1.7), student reported (min –3.5, max 1.7), and parent reported (min –7.4, max 0.6). The scales are strongly related but sufficiently distinct to specify separately. The pairwise product-moment correlations are 0.48 for teacher–student, 0.45 for teacher–parent, and 0.39 for student–parent.

Table 2 shows that all four groups of those who claim Mexican ancestry have levels of measured commitment that are closer to the observed levels of commitment of $3^{rd}+$ generation non-Hispanic blacks rather than $3^{rd}+$ generation non-Hispanic whites. This pattern is consistent with the dissonant acculturation conjecture. In other words, the ELS does not provide direct measures of the strength of available enclaves to which students have access, any apparent devaluation of

Table 3: Indicators of Commitment in the 10th Grade

Teacher reports of commitment (12 items with inter-item scale reliability of 0.77)

Does this student usually work hard for good grades in your class? (English and Math Teacher)

How often does this student complete homework assignments for your class? (English and Math Teacher)

How often is this student attentive in class? (English and Math Teacher)

Has this student fallen behind in school work? (English and Math Teacher)

How often is this student absent from your class? (English and Math Teacher)

How often is this student tardy to your class? (English and Math Teacher)

Student reports of commitment (12 items with inter-item scale reliability of 0.70)

How many times did the following things happen to you in the first semester or term of this school year?

   I was late for school.

   I cut or skipped class.

   I got in trouble for not following school rules.

   I was transferred to another school for disciplinary reasons.

How often do you spend time on the following activities outside of school?

   Visiting friends at a hangout

   Driving or riding around

How much do you like school?

How often do you come to class without these things?

   Pencil/pen or paper

   Books

   Homework done

How many times did the following things happen to you in the first semester or term of this school year?

   I was absent from school.

   I was put on in-school suspension.

   I was suspended or put on probation.

Parent reports of commitment (7 items with inter-item scale reliability of 0.79)

Has your 10th grader ever been considered to have a behavior problem at school?

Since your 10th grader's school opened last fall, how many times have you or your spouse/partner contacted the school about the following?

   Your 10th grader's problem behavior in school

   Your 10th grader's poor attendance record at school

   Your 10th grader's poor performance in school

Since your 10th grader's school opened last fall, how many times have you or your spouse/partner been contacted by the school about the following?

   Your 10th grader's problem behavior in school

   Your 10th grader's poor attendance record at school

   Your 10th grader's poor performance in school

Notes: Scale reliabilities are reported for the 10,895 individuals in the full sample presented in Table 1.

bilingualism, overt parent–child conflict, interest in deviance, and so forth. Yet, if the stipulated mechanisms are at work, they will produce differences in everyday behavior in school, as measured by the commitment and engagement indicators available for the ELS. The reasoning for the linkage is suggested by Portes and Zhou (1993: 88) as follows:

> Seeing their parents and grandparents confined to humble menial jobs and increasingly aware of discrimination against them by the white mainstream, U.S.-born children of earlier Mexican immigrants readily join a reactive subculture as a means of protecting their sense of self-worth. Participation in this subculture then leads to serious barriers to their chances of upward mobility because school achievement is defined as antithetical to ethnic solidarity. Like Haitian students at Edison High, newly ar-

rived Mexican students are at risk of being socialized into the same reactive stance, with the aggravating factor that it is other Mexicans, not native-born strangers, who convey the message.

Our measurement assumption is that students joining a reactive subculture for which school achievement is antithetical to ethnic solidarity should demonstrate less commitment to behaviors that promote short-term school achievement and long-term educational attainment. The observed commitment differences in Table 2, which are typically between one-quarter and one-half of a standard deviation, follow the pattern implied by the dissonant acculturation prediction.[7]

Table 2 also shows that all four groups of those who claim Mexican ancestry were less likely than $3^{rd}+$ generation non-Hispanic whites and blacks to list verbatim occupational plans that included only jobs that typically required college degrees. With the exception of 1.5^{th} generation immigrants, they were also more likely than whites and blacks to offer a response of "Don't know" to the occupational plans prompt. These differences are again present in the 12th grade, perhaps strengthening very slightly.

Overall, the patterns presented in Table 2 are consistent with possible dissonant acculturation. Regardless of their source, the patterns suggest concern that the trajectory toward lower levels of postsecondary attainment among those who claim Mexican ancestry, as shown in Table 1, was well developed already in high school. Whether these differences have been shaped by a "reactive stance" that is embedded in more general patterns of dissonant acculturation cannot be determined with these data.

Table 4 presents group differences in an alternative set of potential causes that are, conceptually at least, distinct from those that are purported to generate dissonant acculturation: family structure and socioeconomic status. Here the pattern is stark, and the comparison to both $3^{rd}+$ generation non-Hispanic whites and non-

Hispanic blacks is more complex. First, respondents who claim Mexican ancestry are more likely than non-Hispanic blacks to be living in families with two parents, although $3^{rd}+$ generation Mexican immigrants have rates of "mother-only" parenthood that are higher than for non-Hispanic whites. Second, for family income, 1st, 1.5^{th}, and 2nd generation Mexican immigrants have substantially lower family income than all $3^{rd}+$ generation groups. Among these latter groups, $3^{rd}+$ generation Mexicans have higher family income than non-Hispanic blacks but still have substantially lower family income than non-Hispanic whites. Third, all four groups of those who claim Mexican ancestry have lower average levels of parental education, with the average education of 1st, 1.5^{th}, and 2nd generation Mexicans between 1.5 to 2 years lower than that of the other three groups. Fourth, these differences in family income and parental education are then reflected in the Socioeconomic Index (SEI) scores of parents' occupations, with, for example, $3^{rd}+$ generation Mexican immigrants having higher levels of occupational attainment than all but $3^{rd}+$ generation non-Hispanic whites.

Taken together, the family background differences presented in Table 4 suggest that the group differences in bachelor's degree attainment reported in Table 1 may reflect a more basic narrative of socioeconomic disadvantage, rather than or in addition to an alternative mechanism of dissonant acculturation. To assess the relative predictive power of the differences presented in Tables 2 and 4, we must offer models that assess the capacity of these characteristics of students and their families to account for patterns of bachelor's degree attainment. Before we do so, we must be clear about our aims. We assume that our estimates are generated by causal effects, but these are not causal effects that we can directly estimate. Instead, our models attempt to discern the trace of such effects in estimated associations one or two steps removed from the genuine preferences and choices of individuals, as structured by opportunities and cost constraints. Our reading of the extant literature on segmented assimilation is that all empirical research should be regarded as equally (or more limited) than what we can offer here. Too few of the quantitatively oriented pieces in this tradition have conceded these limitations.

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[7]The CILS data set that has been analyzed heavily by proponents of the segmented assimilation prediction does not contain such measures; the CILS survey instrument was not focused on direct measures of school outcomes and did not include a teacher questionnaire.

Table 4: Family Background Measures for the Six Focal Groups

	Mexican Ancestry 1st Gen.	Mexican Ancestry 1.5^{th} Gen.	Mexican Ancestry 2nd Gen.	Mexican Ancestry $3^{rd}+$ Gen.	Black, Non-Hisp. $3^{rd}+$ Gen.	White, Non-Hisp. $3^{rd}+$ Gen.
Family structure						
Living with two parents	0.73	0.75	0.82	0.69	0.50	0.80
Mother only	0.19	0.16	0.15	0.23	0.43	0.15
Father only	0.03	0.05	0.03	0.03	0.02	0.03
Other	0.01	0.02	0.00	0.01	0.02	0.01
Socioeconomic status						
Family income (10th grade)	30,820	23,970	35,600	48,910	42,160	69,520
Mother's education (years)	11.5	11.0	11.3	13.0	13.4	13.9
Father's education (years)	11.6	11.4	11.7	13.0	13.3	14.1
Mother's occupation (SEI)	34.9	34.0	37.7	44.2	43.1	47.2
Father's occupation (SEI)	35.8	36.7	37.7	42.4	41.7	46.2
Unweighted N	115	78	265	408	1,335	6,166

Note: See Table 1.

With this caveat clearly stated, we carry on to estimate logit models of bachelor's degree receipt, using alternative prediction sets. To simplify model specification by eliminating groups not of central interest, we narrow the estimation sample to the 8,367 students who are members of the six focal groups placed in boldface type in Table 1 and subsequently examined in Tables 2 and 4.

Table 5 reports predicted rates of bachelor's degree attainment (with standard errors), calculated from five logit models with different sets of predictors. Fit statistics for the underlying models are provided at the bottom of each column, and full sets of parameter estimates for each model are offered in Supplementary Appendix Tables S2 and S3.

Unadjusted rates. For model 1, bachelor's degree attainment was regressed on five indicator variables for group, one main effect for gender, and five cross-product interactions between group and gender. The group estimates reported in the first column of Table 5 are standardized to the gender composition of non-Hispanic whites for consistency with subsequent models. Given that gender varies only with group because of sampling variability (as well as some very small differences that may be attributable to patterns of high school dropout before the sophomore year), we consider these estimates as our baseline unadjusted group estimates of the proportions of students who obtain bachelor's degrees. They

are almost exactly equivalent to the nonparametric, unstandardized rates presented in the third column of Table 1.[8]

Rates adjusted by indirect measures of dissonant acculturation. For model 2, we added the three commitment scales to the set of predictors. The likelihood ratio statistic summarized at the bottom of the second column indicates that, for a loss of three degrees of freedom, the change in the log-likelihood between models 1 and 2 is large. The sample-size-scaled and parameter-penalized Bayesian Information Criterion (BIC) values also clearly favor model 2 relative to model 1.

The values in the six rows of the second column are properly interpreted as adjusted group rates of bachelor's degree receipt, calculated in a targeted way. Each rate is standardized to the marginal distribution of commitment that characterizes $3^{rd}+$ generation non-Hispanic whites, which is an appropriate reference group when analyzing modal patterns of educational attainment and considering the segmented assimilation prediction. Accordingly, each value is an estimated rate that, according to the parameters of the underlying estimated model, would be observed if

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[8]The logit coefficients presented in Table S2 indicate that young men of all groups are less likely to obtain bachelor's degrees and that this effect is larger for all groups of students who claim Mexican ancestry. We will not focus on this gender difference in this article and will, hereafter, continue to marginalize over the distribution of gender without comment.

Table 5: Unadjusted and Adjusted Proportions of Students Enrolled in the 10th Grade in 2002 Who Obtained a Bachelor's Degree by 2012, Where the Adjustments Are Standardized to the Distributions that Characterize $3rd+$ Generation Non-Hispanic Whites

	(1)	(2)	(3)	(4)	(5)
Mexican ancestry					
1st generation immigrant	0.12	0.19	0.14	0.15	0.21
	(0.02)	(0.03)	(0.03)	(0.03)	(0.08)
1.5^{th} generation immigrant	0.13	0.19	0.14	0.14	0.50
	(0.04)	(0.05)	(0.04)	(0.04)	(0.12)
2nd generation immigrant	0.19	0.24	0.20	0.20	0.39
	(0.03)	(0.03)	(0.03)	(0.03)	(0.05)
$3^{rd}+$ generation immigrant	0.21	0.29	0.22	0.23	0.30
	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)
Black, non-Hispanic					
$3^{rd}+$ generation immigrant	0.20	0.31	0.20	0.21	0.27
	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)
White, non-Hispanic					
$3^{rd}+$ generation immigrant	0.41	0.41	0.41	0.41	0.41
	(0.01)	(.01)	(0.01)	(0.01)	(0.01)
Adjustment variables					
Commitment (10th grade)		✓			
Educational requirements of expected job (10th grade)			✓		
Beliefs about requirements of expected job (12th grade)				✓	
Socioeconomic status and family structure					✓
Likelihood ratio test					
Model for comparison	Intercept only	Model 1	Model 1	Model 1	Model 1
χ^2 statistic for change in log-likelihood	127,983	439,186	66,554	279,319	375,987
Change in degrees of freedom	11	3	4	6	36
p-value	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BIC	3,075,819	2,636,660	3,009,301	2,796,554	2,700,157

Notes: See Table 1. All models include regressors for gender and gender-by-group interactions, as discussed in the main text.

all groups had the same distribution of commitment as $3^{rd}+$ generation non-Hispanic whites.[9] For this reason, the adjustment has no effect on the rate for $3^{rd}+$ generation non-Hispanic whites,

which remains at 0.41. The rates for all other groups move closer to this value because of the adjustment.

Model 2 suggests that the unadjusted group differences estimated by model 1 would narrow somewhat if all groups were given the same commitment levels.[10] For the most crucial compar-

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[9]For comparison, adjusted group estimates from the same five models are offered in the Supplementary Appendix with alternative choices of reference distributions of the predictors. The adjusted group differences are marginalized to the pooled distribution of predictors across all six groups in Table S5 and then to the distribution of predictors that characterize 2nd generation Mexicans in Table S6.

[10]Models that represent commitment as 32 separate predictor variables in an alternative to model 2 yielded nearly identical adjusted group estimates of 0.18, 0.19, 0.24, 0.29, 0.31, and 0.41 reading from top to bottom (and

ison, the gap between the rates of 2nd generation Mexicans and $3^{rd}+$ generation non-Hispanic whites would narrow by 27 percent (by a raw 6 percentage points from 0.22 to 0.16). Other differences decline similarly, with the gap shrinking by 24 percent and 21 percent, respectively, for 1st and 1.5^{th} generation Mexicans.

The decline is more substantial for $3^{rd}+$ generation Mexicans, with the difference of 0.20 decreasing to 0.12, which is a 40 percent decline. Again, it is hard to interpret mean values of any type for this very heterogeneous group of $3^{rd}+$ generation Mexicans (and which, as a result, has an unclear position in debates over the dissonant acculturation mechanism). Still, it is notable that the pattern observed for this group is very similar to the pattern for $3^{rd}+$ generation non-Hispanic blacks. In addition to the similarity of their unadjusted rates of bachelor's degree receipt, which are 0.21 and 0.20, the adjustment for commitment increases their estimated rates similarly to 0.29 and 0.31 (but with the increase slightly larger for non-Hispanic blacks, at least as judged by the point estimates).

Models 3 and 4 offer alternative adjustments, first for the educational requirements of expected jobs reported in the 10th grade and second for beliefs about the educational requirements of expected jobs reported in the 12th grade. As with model 2, these adjustment variables predict bachelor's degree receipt, as reflected in the likelihood ratio tests and the improved fits summarized by BIC values for models 3 and 4 in comparison to model 1. However, the adjusted group differences reported in the first six rows are only very slightly smaller in comparison to the unadjusted differences from the baseline model 1, decreasing by between 0.01 and 0.03 for all four of the groups that claim Mexican ancestry.

Taken together, models 2 through 4 suggest that the group differences summarized in Table 2 that are consistent with the dissonant acculturation conjecture explain only a modest proportion of group differences for 1st, 1.5^{th}, and 2nd generation Mexican immigrants. However, for $3^{rd}+$ generation Mexicans, commitment is a

more substantial predictor, narrowing the gap by 40 percent. Note, furthermore, that these changes in adjusted rates are upper-bound estimates of the extent to which the adjustment variables can account for group differences in bachelor's degree receipt. From a variety of theoretical perspectives, it would be reasonable to argue that an analysis of how these variables narrow group differences should be undertaken only after first adjusting for differences in family background. We explore such models later; for now, we allow these indirect measures of dissonant acculturation to have their largest possible effects on attainment rates.

One could argue, and we would expect no less from proponents of segmented assimilation predictions, that the ELS measures deployed for adjustment in models 2 through 4 are too indirect to inform the prediction. Although not an unreasonable position, this is not our position. More supportive of the conjecture, we believe, would be an argument based on the pattern observed for $3^{rd}+$ generation Mexicans when an adjustment for commitment is offered. This pattern does provide some support for the segmented assimilation prediction *if* this group is declared relevant for the dissonant acculturation mechanism. Furthermore, it must be conceded that any such support is "behind the backs" of these students, because models 3 and 4 show that adjustments for students' own expected trajectories through the educational system and into occupations can account for only a very small portion of the gap between $3^{rd}+$ generation Mexicans and $3^{rd}+$ generation non-Hispanic whites.

Rates adjusted by measures of family background. Model 5 offers rates adjusted by family structure and socioeconomic status. These estimates suggest that differences in family background can account for a large portion of unadjusted group differences for 1.5^{th} and 2nd generation Mexicans, and about the same amount as commitment for 1st and $3^{rd}+$ generation Mexicans. In particular, when all groups are given the family background distributions of $3^{rd}+$ generation whites, the gap observed for 2nd generation Mexicans narrows, in a comparison of model 1 to model 5, from 0.22 to 0.02. The gap estimated for 1.5^{th} generation Mexican immigrants reverses direction from 0.28 to –0.09 (although the standard error for the adjusted rate for the 1.5^{th} generation is comparatively large in model 5). The

with corresponding standard errors equal through the second decimal place). The BIC value favored the elaborate model, but we see no compelling rationale for heeding it (given the near-invariance of the group estimates and the value of having interpretable dimensions and shorter tables in the Supplementary Appendix).

decline in the gap for 1st generation Mexican immigrants is less substantial, moving from 0.29 to 0.20 (but now the standard error is large, making it difficult to assess the size of the remaining adjusted difference). The gap for $3^{rd}+$ generation Mexicans declines slightly more in response to an adjustment for family background than an adjustment for commitment, declining from 0.20 to 0.11 rather than 0.13. Overall, family background always explains more for each group than does commitment, and a great deal more for the crucial groups of 1.5^{th} and 2nd generation Mexicans.

Before carrying on to subsequent analysis and interpretation, we should explain the specification choice for model 5, which represents family structure and socioeconomic status with regressors that collectively absorb 36 degrees of freedom. In the course of analysis, we first decided that because of the sample size, we needed to reduce the parameterization of family structure to a single indicator variable for "mother-only" family. We then fit a model that constrained the conditional associations between the variables for family background and bachelor's degree attainment to be the same across all six groups. We then reestimated the model, allowing these associations to vary by group. Model 5 in Table 5 is based on the latter unconstrained specification, which we favored for two reasons.

First, according to the fit statistics, the interactions were justified by a likelihood ratio test, with a chi squared test statistic of 12,570 and for a difference of 30 degrees of freedom. Given the large sample size, we used a BIC value comparison, which yielded the same conclusion (based on a decline from 2,712,456 to 2,700,157 for the unconstrained model). Nonetheless, as shown by a comparison of models 5-C in Table S2 and model 5 in Table S3, most of the interactions are nonsignificant by conventional standards. This is a combined result of the small cell sizes for some of these groups but also the well-known consequence of fitting parameters across many dimensions that are related to each other. The data do not contain sufficient numbers of unusual combinations of students in each group to precisely estimate all of the conditional associations for the six family background variables.

Second, the direction of the coefficients for the interactions aligned with concerns often expressed in this literature and could not be discounted based on substantive size. Although the coefficients for the interactions of group with mother's occupation and father's occupation were very small, the coefficients for the interactions between group and the other four main effects were not. For example, net of all else, being in a "mother-only" family had a negative association with bachelor's degree attainment for $3^{rd}+$ generation African American students but a net positive association for both 2nd and $3^{rd}+$ generation Mexican students.[11] The net associations of parental education with bachelor's degree attainment were slightly smaller for 1st, 1.5^{th}, and 2nd generation Mexican immigrants, sometimes for mother's education and sometimes for father's education. At the same time, the net associations of logged family income with bachelor's degree attainment were largest for 2nd and $3^{rd}+$ generation Mexican immigrants.

Although one should be careful in trying to interpret conditional associations when they are so heavily parameterized and the cell sizes for the groups are small, the point estimates for these coefficients are consistent with ad hoc interpretations of the challenges of using socioeconomic status to adjust for differences between groups such as these. In particular, it is not surprising that the relevance of educational certification, often received in the "home" country, is less predictive of outcomes of all types in the United States. In addition, family income may be especially predictive of bachelor's degree receipt for immigrant families that must pay college tuition from current income, having comparatively lower stocks of wealth to borrow against and, perhaps, fewer kin with resources to help defray costs. Assuming that coefficients for parents' education and family income are invariant by group would suppress narratives of this sort, opening up our adjusted estimates to the claim that adjustment for these variables has generated misleading estimates of group differences.[12]

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[11]"Mother-only" family had a zero net association, or the statistical equivalent thereof, because of imprecise estimation, for all other groups. These associations, however, are net of simultaneous within-group adjustments for mother's level of education and family income.

[12]This concern notwithstanding, the overall consequence of adopting the unconstrained specification is not consequential for the main interpretations and conclusions. For the constrained model (model 5-C in Table S2), the

The overall implication of model 5 is that family background is a strong predictor of bachelor's degree receipt, which is consistent with abundant extant research. Even when allowed to have differential associations across groups, family background can account for large portions, and perhaps all, of the gaps in attainment observed for 1.5^{th} and 2nd generation Mexican students. The precise mechanisms by which differences in family background produce differences in bachelor's degree attainment are not revealed by the analysis reported in Table 5. The literature on college entry and persistence suggests many mechanisms, and three are especially important to note now. First, the children of recent Mexican immigrants are more likely to have attended K to 12 schools that did not adequately prepare them for postsecondary education. Abundant research shows that the mean of parental socioeconomic status is strongly related to all observed measures of quality across schools, even after adjustments for differences in the racial and ethnic composition of schools. There is no basis for arguing that the children of recent immigrants are exempt from this broad pattern of educational opportunity in the United States. Second, the children of recent Mexican immigrants are more likely to have parents who are resource constrained and cannot provide college tuition assistance comparable to what the parents of non-Hispanic whites can, on average, furnish. Third, parents without college degrees have less information and fewer personal experiences that enable them to effectively guide their children into and through postsecondary educational institutions. Table 4 shows that the parents of ELS students we have coded as 1st, 1.5^{th}, and 2nd generation Mexicans have the lowest levels of parental education and, furthermore, have comparatively little experience with higher education in the United States.

Extended Results for Models of Bachelor's Degree Attainment

In this section, we offer three additional pieces of analysis. First, we consider an alternative

adjusted rates would be slightly higher for the 1st generation (0.32 instead of 0.21), the 2nd generation (0.40 instead of 0.39), and $3^{rd}+$ generation blacks (0.29 instead of 0.27). The adjusted rates would be slightly lower for the 1.5^{th} generation (0.35 instead of 0.50) and the same for $3^{rd}+$ generation Mexicans (0.30).

set of measurement assumptions, substituting educational expectations for our measures of occupational plans. Second, we consider models that simultaneously adjust for the covariates in models 2 through 5 as well as additional predictors. Third, we consider predictive simulations that assess the sensitivity of our conclusions to the possibility that a disproportionate number of students who claim Mexican ancestry dropped out of the sample before the 2002 base-year data collection.

Alternative models that adjust for educational expectations. Here we place the foregoing set of models and interpretations in the context of the original literature on the segmented assimilation prediction, where some related measures are used in quite different ways. To ground this discussion, consider first the group means reported in Table 6 for educational expectations in the 10th and 12th grades. Consistent with group differences in our coding of occupational plans as the educational requirements of expected jobs, students who claim Mexican ancestry are less likely to report that they expect to obtain bachelor's degrees. They are more likely to expect lower levels of education and to express uncertainty by selecting the response option of "Don't know."

Yet, all students are very optimistic about their likelihood of obtaining bachelor's degrees, relative to subsequent outcomes (see Table 1). The educational expectations of students decline substantially between the 10th and 12th grades, reflecting greater realism about likely trajectories. But, even in the spring of what is typically senior year for these respondents, many more students still expect to obtain bachelor's degrees than will. We interpret these patterns as consistent with the position that reported educational expectations are now contaminated by a pervasive "college for all" culture that has dominated secondary schooling in the United States since the early 1990s. At the time the Wisconsin model was developed (see Sewell et al. 1979; Haller and Portes 1973) and these measures became widely used in social science research, educational aspirations and expectations were not subject to this upward response bias, which reflects a type of social desirability context effect on survey responses.

To motivate the alternative models that we present in this section, we need to briefly reconsider how proponents of the segmented assimila-

Table 6: Educational Expectations for the Six Focal Groups

	Mexican Ancestry 1st Gen.	Mexican Ancestry 1.5th Gen.	Mexican Ancestry 2nd Gen.	Mexican Ancestry 3rd+ Gen.	Black, Non-Hisp. 3rd+ Gen.	White, Non-Hisp. 3rd+ Gen.
Educational expectations, 10th grade						
Bachelor's degree or higher	0.62	0.66	0.63	0.62	0.72	0.74
Some college	0.08	0.13	0.13	0.14	0.11	0.10
High school diploma or lower	0.12	0.08	0.12	0.13	0.09	0.07
Don't know	0.18	0.13	0.12	0.11	0.08	0.09
Educational expectations, 12th grade						
Bachelor's degree or higher	0.42	0.49	0.53	0.53	0.62	0.68
Some college	0.26	0.30	0.26	0.24	0.19	0.19
High school diploma or lower	0.14	0.11	0.08	0.07	0.08	0.05
Don't know	0.18	0.10	0.13	0.15	0.11	0.08
Unweighted N	115	78	265	408	1,335	6,166

Note: See Table 1.

tion literature have used variables for educational aspirations and expectations. A good starting point is the overview piece of Haller and Portes (1973: 68), in particular the key passage where they summarize the rationale for the central role of aspirations in the Wisconsin model of status attainment:

> It is the last set of variables [educational and occupational aspirations] which constitutes the strategic center of the model. Aspirations mediate most of the influence of antecedent factors on status attainment. Even when educational attainment is taken into account, occupational aspirations still exercise a significant direct effect on occupational attainment.
>
> The execution of occupational and educational aspirations appears to be a central process in early adult status attainment, not only because it represents a clear expressive orientation toward desirable goals but also because it is likely to involve a realistic appraisal of possibilities conveyed to ego by significant others and his own self-evaluations. The hypothesized impact of aspirations on status attainment does not mean that all or

most specific goals must be fulfilled but, more generally, that initial plans set limits to the range where eventual attainment levels are likely to be found.

Many of the core features of this older argument were adopted by Portes and Rumbaut (2001), even while the segmented assimilation conjecture was elaborated with ideas drawn from the literature on oppositional culture that was in ascendance in the 1990s.[13]

Consider first the survey instruments for the CILS, on which the primary results of Portes and Rumbaut (2001) are based (as well as some of the early results in Portes and Zhou [1993]). For the 1991 CILS base-year student questionnaire, educational and occupational aspirations were elicited with a variety of questions, the first three

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[13]There are important pieces that link these traditions as well, perhaps most important being Portes, McLeod, and Parker (1978), which offered a comparison of the educational, occupational, and income aspirations of Mexican and Cuban adult immigrants, sampled at ports of entry. Portes et al. (1978) concluded that occupational aspirations are modest and rational and that many of the typical status attainment characteristics have the expected associations with elicited aspirations. Past education and occupation were the strongest determinants of the occupational aspirations of Mexican immigrants, with mother's level of education following next. Feliciano (2006) offers a similar result for the educational expectations of children of immigrants who participated in the CILS.

of which were as follows: (1) "What is the highest level of education you would like to achieve?" (2) "And realistically speaking, what is the highest level of education that you think you will get?" and (3) "What job would you like to have as an adult? (Please write clearly)." The follow-up questionnaire for the CILS included similar questions, often exact replicates (see Portes and Rumbaut 2001, Appendix A). Similarly, the parent questionnaire of the CILS elicited status attainment predictors, including the aspirations of parents for students.[14]

It is notable that occupational aspirations received very little attention in any of the core pieces that proposed the segmented assimilation prediction, even though they were measured by the CILS.[15] Yet the data were analyzed, and one can find small references to some of their patterning. Portes and Zhou (1993, Table 2) report high levels of occupational aspirations for the groups they analyze from the Florida component of the CILS, which does not include those who claim Mexican ancestry. Portes and Rumbaut (2001:219) indicate that, in results "not shown," 18 percent of all CILS respondents aspired to

be physicians but that young women were more likely to be found among aspiring physicians "across almost all nationalities."

Although attention to occupational aspirations is scarce, educational aspirations and expectations feature prominently, usually motivated directly by status attainment research. For example, Portes and Rumbaut (2001:226) write that "in modeling determinants of educational aspirations and expectations, we follow past theories of the status attainment process." At the conclusion of their analysis, they conclude that "the bearing of the history and negative modes of incorporation of Mexican immigrants on the adaptation of their young is evident in these findings where, independent of other factors, Mexican origin reduces educational aspirations and expectations by almost 10 percent" (Portes and Rumbaut 2001). We read this conclusion as a direct claim that negative modes of incorporation, which are a source of dissonant acculturation, decrease educational aspirations and expectations.[16] These declines are then accentuated by patterns of interaction in schools, where a generalized oppositional culture to school achievement emerges, as first articulated in Portes and Zhou (1993:88) for Mexican immigrants as a "reactive stance."

Our perspective on the origins and measurement features of the analysis of Portes and Rumbaut (2001) suggests a reasonable objection to our results: we have ignored a measure of ambition that the originators of the segmented assimilation prediction would insist be in the foreground. We agree that we have indeed done this for the models reported in Table 5, but our goal was not at all driven by a desire to invalidate the segmented assimilation prediction. Rather, for reasons stated when presenting models 2 through 5, and for deeper theoretical reasons detailed in Morgan et al. (2013a, 2013b), we think any decision to yoke a set of models of educational attainment to status attainment predictors conceptualized in the 1960s is a poor analysis choice, especially when direct measures of commitment and everyday engagement with schooling are now available. Even so, we should also note that we do not entirely discount models of forward-looking beliefs elicited in high school but rather that we favor

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[14]Beyond these status attainment items, the CILS also collected extensive information on immigration histories, patterns of language usage, social psychological indicators of depression and self-esteem, as well as attitudes toward bilingualism, attitudes about other features of the assimilation process, and attitudes about the opportunity structure of the United States. Similar attitudinal items on the parent questionnaire then allowed for measures of parent-child agreement on these attitudes. The CILS did not, however, measure everyday commitment to schooling, nor did it have a teacher component like the ELS. In fact, it is remarkably devoid of measures that would allow one to directly model oppositional modes of behavior that are consistent with the dissonant acculturation that is purported to be unfolding in adolescence and early adulthood.

[15]One exception is Feliciano and Rumbaut (2005), which offers models of occupational expectations for the San Diego portion of the third wave of the CILS. They show that young women who are identified as the children of Mexican immigrants have lower expectations, net of socioeconomic status and schooling (although these are the occupational expectations of 24–25 year-olds, looking forward to expected occupations at age 30). Moving beyond the CILS, Portes et al. (2010) align their analysis of immigrant generational effects in Spain squarely with the status attainment tradition, offering a figure (see page 768) that includes a latent "ambition" variable. They later use occupational-prestige-type PRESCA scores to scale occupational aspirations, which is very similar to the original Level of Occupational Aspiration concept and SEI-scored operationalization of the Wisconsin model.

[16]It is also notable that the ten percent difference highlighted in this claim is consistent with what we observed for the ELS in 2002 and 2004 (see Table 6).

ones that represent uncertainty and that are tied to forecasts about labor market position which themselves imply specific educational trajectories. These measures, we maintain, are far less afflicted by social desirability bias attributable to the "college for all" ethos of secondary schooling in the United States.

Still, what would happen if we were to fully embrace a status attainment rationale for using educational expectations as a realistic measure of ambition that, through adaptation to negative modes of incorporation, generates dissonant acculturation? Doing so would bring the design of our analysis into closer alignment with that of Portes and Rumbaut (2001), but additional results show that our conclusions from the last section would remain unaltered:

1. If we were to substitute into model 3 the educational expectations variable in the 10th grade (see Table 6 for categories) instead of our variable for the educational requirements of students' expected jobs, the corresponding adjusted rates reported in Table 5 would be 0.14, 0.14, 0.21, 0.25, 0.21, and 0.41 rather than 0.14, 0.14, 0.20, 0.22, 0.20, and 0.41.

2. If we were to then substitute into model 4 the educational expectations variable in the 12th grade instead of our variable for beliefs about the educational requirements of students' expected jobs, the corresponding adjusted rates reported in Table 5 would be 0.14, 0.14, 0.22, 0.25, 0.21, and 0.41 rather than 0.15, 0.14, 0.21, 0.23, 0.21, and 0.41.

In other words, our measures of the educational requirements of expected jobs capture the same, quite low, capacity of forward-looking beliefs to account for the group differences of interest. We do not believe, therefore, that our decision to use an alternative measure of forward-looking beliefs is consequential for our main conclusions, even though they generate a mismatch with how the originators of the segmented assimilation prediction operationalized forward-looking beliefs.

Additional models with simultaneous adjustment. To show how simultaneous adjustment does not change our main conclusions, we offer two final models in Table 7. Model 6 adds the adjustment variables from models 2 through 4 to the

family background variables specified for model 5. The fit statistics, now for a comparison of model 6 to model 5, indicate that these variables are substantial predictors of bachelor's degree attainment, net of simultaneous adjustment for family background. Forcing the distributions for the predictors in model 6 for all groups to be the same as the observed distributions for $3^{rd}+$ generation non-Hispanic whites, we obtain some further narrowing of the gaps of interest in adjusted rates of bachelor's degree attainment.

Model 7 is then a "kitchen sink" model that adds to the variables specified for model 6 the educational expectations variables presented in Table 6 along with four measures of high school academic achievement. Group differences in these measures of academic achievement follow expected patterns (and are presented in Supplementary Appendix Table S4). They are ordered consistently across measure by year and in the same pattern as socioeconomic status. Non-Hispanic $3^{rd}+$ generation whites have the highest levels of achievement, followed by $3^{rd}+$ generation Mexicans, $3^{rd}+$ generation non-Hispanic blacks, 2nd generation Mexicans, 1.5^{th} generation Mexicans, and, finally, 1st generation Mexicans. We interpret these differences as consistent with the narratives offered for the effects of socioeconomic status on bachelor's degree receipt, supplemented by two additional rich literatures on K to 12 education in the United States: (1) how the home environment structures achievement in elementary and secondary schooling and (2) how differences in school quality tend to reproduce, rather than moderate, these differences.[17]

For model 7 in Table 7, the additional 10 parameters further improve the model fit, as indicated by the likelihood ratio test and the BIC values for the comparison of model 7 to model 6. If we again impose the observed distributions of the predictors that characterize $3^{rd}+$ generation non-Hispanic whites, we can produce a new set of adjusted rates of bachelor's degree attainment that differ little across groups. The point estimates of these adjusted rates continue to vary

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[17]We also believe, consistent with Morgan et al. (2013a, 2013b), that these performance levels are endogenous with respect to beliefs about likely trajectories through the educational system, as picked up by our measures of the educational requirements of expected jobs. Any such effects may be small relative to those that flow from the mechanisms mentioned in the main text.

Table 7: Additional Adjusted Proportions for Bachelor's Degree Receipt by 2012

	(6)	(7)
Mexican ancestry		
1st generation immigrant	0.27	0.36
	(0.10)	(0.10)
1.5th generation immigrant	0.48	0.55
	(0.08)	(0.07)
2nd generation immigrant	0.43	0.43
	(0.04)	(0.04)
3rd+ generation immigrant	0.36	0.40
	(0.03)	(0.02)
Black, non-Hispanic		
3rd+ generation immigrant	0.36	0.43
	(0.02)	(0.02)
White, non-Hispanic		
3rd+ generation immigrant	0.41	0.41
	(0.01)	(0.01)
Adjustment variables		
Commitment (10th grade)	✓	✓
Educational requirements of expected job (10th grade)	✓	✓
Beliefs about requirements of expected job (12th grade)	✓	✓
Socioeconomic status and family structure	✓	✓
Educational expectations (10th grade and 12th grade)		✓
Reading test (10th grade)		✓
Math test (10th and 12th grade)		✓
Cumulative GPA		✓
Likelihood ratio test		
Model for comparison	Model 5	Model 6
χ^2 statistic for change in log-likelihood	456,168	312,297
Change in degrees of freedom	13	10
p-value	< 0.001	< 0.001
BIC	2,244,107	1,931,900

Note: See Table 1.

slightly, but the level of variation is consistent with sampling error.

The tougher question is how to interpret the adjusted rates from model 7, given the lack of consensus in this literature on which variables can be interpreted as baseline confounders, which variables can be interpreted as measures of factors within causal mechanisms, and which variables are neither of these two. Our decisions on these matters are the following. Models 2 through 5 convey what is our major conclusion: socioeconomic status alone can account for large portions of unadjusted group differences. Model 6 is an interesting model because, as we show in the next section, it can be a basis for evaluating alterna-

tive predictions that may be more consistent with the dissonant acculturation conjecture. Model 7, however, is of less interpretive value for models of bachelor's degree attainment because of the extent to which performance in the final two years of high school strongly reflects realistic anticipation of bachelor's degree attainment itself.

Predictive simulations and sensitivity of results. We recognize that some readers will regard our embrace of model 5, and the conclusion that socioeconomic status can account for most group differences, as incomplete (and perhaps even self-serving). We have one nontypical defense to offer. We concede that we had hoped that the measures of forward-looking beliefs and commitment

that we showed were predictive in Morgan et al. (2013a, 2013b) would show their mettle in this context too, lending support to the segmented assimilation prediction that many scholars had good reason to doubt. Instead, while they are predictive and in the same pattern as expected (see the coefficients in Tables S2 and S3), only commitment appears to account for any substantial portion of the between-group differences. Given our expectations, we were genuinely surprised by this result.

Nonetheless, it is worthwhile to consider sets of alternative analysis assumptions that can give these predictors more capacity to account for between-group differences. To show what we mean, consider model 6, which we regard as a reasonable model between what we favor (model 5) and the model that we regard as overfit (model 7). For model 6, family structure, socioeconomic status, commitment, and the educational requirements of expected jobs, as well as beliefs about them, are all given a chance to account for group differences in receipt of bachelor's degrees.

Table 8 presents a set of adjusted group rates that we characterize as predictive simulations because most are entirely synthetic (i.e., based on combinations of distributions that are not observed for any real groups of ELS respondents). If we had confidence that our model 6 identified specific causal effects, we would have labeled these simulations "counterfactual." Instead, we see these simulations as an alternative way of exploring patterns in the results, providing a first approximation to genuine what-if scenarios. In addition, for this final piece of analysis, we consider only what we regard as the comparison most relevant for evaluating the prospects that Mexican immigrants will join the mainstream in the coming decades: the gap in bachelor's degree attainment between 2nd generation Mexicans and $3^{rd}+$ generation non-Hispanic whites.

For the first panel of Table 8, we use the same distribution of family background that we used to standardize the group estimates for models 5 through 7. For the second panel, we use the distribution of family background that is observed for 2nd generation Mexicans (and that corresponds to alternative adjusted rates for models 5 through 7 that are presented in Supplementary Appendix Table S6).

The group estimate in the top right corner of the table, 0.41, is in fact the same unadjusted group estimate for $3^{rd}+$ generation non-Hispanic whites from Table 5, which we include in Table 8 for comparison purposes. Just below it, the value of 0.27 is the predicted rate of bachelor's degree receipt for a synthetic group of respondents who have the family structure and socioeconomic status distributions of $3^{rd}+$ generation whites but the lower levels of commitment and beliefs about expected jobs that characterize 2nd generation Mexicans. For this estimated rate, we pass this synthetic group through the coefficients for model 6 that apply to $3^{rd}+$ generation non-Hispanic whites. Accordingly, we can interpret the resulting estimate of 0.27 as the rate of bachelor's degree attainment that applies to a synthetic group of students who are given the high socioeconomic status characteristics of $3^{rd}+$ generation non-Hispanic whites but not the commitment and beliefs associated with higher levels of socioeconomic status. This adjusted rate is a reasonable prediction for 2nd generation Mexican students who are seized by an unshakeable pattern of dissonant acculturation that would not respond to hypothetical interventions in family background. In this case, their rate of bachelor's degree attainment would increase only from values between 0.19 and 0.21 (depending on the model) to 0.27 under such a hypothetical intervention.[18] This value is considerably lower than the adjusted rate of 0.39 reported for model 5 in Table 5.

Now consider an alternative simulated prediction. Assume that the ELS sample does not include many of the 2nd generation Mexican students who are most prone to dissonant accul-

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[18]Some of the gap between 0.27 and 0.41 reflects the different way in which the group estimate is calculated. The value of 0.41 is based on the mean of marginal predictions across the sample of $3^{rd}+$ generation whites and hence matches our baseline rate from model 1. The value of 0.27 is a conditional prediction based on setting the values of commitment and educational requirements of expected jobs at the mean values observed for 2nd generation Mexicans. Using the same procedure at all of the means of $3^{rd}+$ generation whites yields a prediction of 0.36, not 0.41, which is not the desired unadjusted rate for $3^{rd}+$ generation whites. The prediction at the means is not equal to the means of the predictions. Our analysis decisions for the results in Table 8 are favorable to the segmented assimilation position so as to give it the best possible chance to emerge as a convincing alternative to our chosen interpretations.

Table 8: Simulated Group Differences from Model 6 for Alternative Assumptions That Predispose toward Acceptance of the Dissonant Acculturation Conjecture for 2nd Generation Mexican Students

Distribution of Family Structure and Socioeconomic Status:	At Means of Commitment and Beliefs about Expected Jobs:	Model 6 Estimated Proportions For:	
		2nd Generation Mexican	$3^{rd}+$ Generation White, non-Hispanic
3rd generation White non-Hispanics	3rd generation non-Hispanic	0.43 (0.04)	0.41 (0.01)
	2nd generation Mexican	0.31 (0.06)	0.27 (0.01)
	Below the means of 2nd generation Mexicans by an amount equivalent to the observed difference between 2nd generation Mexicans and $3^{rd}+$ generation white, non-Hispanics	0.24 (0.05)	0.20 (0.01)
2nd generation Mexican	3nd generation non-Hispanic	0.19 (0.03)	0.18 (0.01)
	2nd generation Mexican	0.19 (0.02)	0.19 (0.01)
	Below the means of 2nd generation Mexicans by an amount equivalent to the observed difference between 2nd generation Mexicans and $3^{rd}+$ generation white, non-Hispanics	0.10 (0.02)	0.09 (0.01)

Note: See Table 1.

turation (e.g., students who dropped out before the 10th grade or sampled students who refused to participate but for whom nonresponse adjustments performed by the data distributors were ineffective). As a consequence, suppose that the observed mean commitment levels and beliefs about expected jobs are artificially and misleadingly high for 2nd generation Mexicans in the ELS. If we pick lower reasonable values—in our case, by shifting to values below the observed means for 2nd generation Mexicans by an amount equal to the observed difference between $3^{rd}+$ generation non-Hispanic whites and 2nd generation Mexicans—we can use these lower means to generate a new synthetic prediction. Taking these lower levels, but still giving these synthetic students the family background distributions characteristic of $3^{rd}+$ generation non-Hispanic whites, as well as the coefficients from model 6 that apply to these whites, we obtain a predicted bachelor's degree attainment rate of only 0.20. Given that the unadjusted rate is between 0.19 and 0.21 depending on the method of calculation, we have effectively undone what we assumed we could

accomplish by eliminating group differences in family background.

We do not believe that 0.20 is a reasonable prediction, given our judgment about the quality of the ELS sample and our belief, consistent with extant research, that shifts in family background would be expected to produce changes in everyday behavior as well as beliefs about future educational and occupational trajectories. In other words, even if dissonant acculturation exists for these students, we do not believe that it would be entirely unresponsive to changes in family background. Proponents of segmented assimilation may not agree.

For completeness, Table 8 presents additional predictions for alternative combinations of family background distributions, means of commitment and beliefs, passed through the coefficients that pertain alternatively to $3^{rd}+$ generation non-Hispanic whites and 2nd generation Mexicans. Although differences emerge across these other nine predictions, they follow the same basic patterns described for our comparison of the predictions in the upper-right corner of Table 8. The lowest pre-

diction we generate is at the bottom-right corner of Table 8, where we assume that 2nd generation Mexicans keep their family background distribution, have lower than observed levels of commitment, and yet move through the coefficients for $3^{rd}+$ generation non-Hispanic whites, thereby receiving the largest possible penalty for having low levels of socioeconomic status. Only 9 percent of such simulated students obtain bachelor's degrees. Although this value is far too pessimistic, according to our judgment, it does provide a useful conclusion. Our best guess is that we could still double the bachelor's degree rate from 0.09 to 0.20 if, as shown in the third cell above it in Table 8, we gave these simulated students a distribution of family background that characterizes $3^{rd}+$ generation non-Hispanic whites.[19] Altogether, we conclude that, regardless of whether dissonant acculturation is present, the socioeconomic status disadvantage that characterizes the lives of recent Mexican immigrants and their children is a strong predictor, and likely the most important cause, of their low levels of bachelor's degree attainment.

Conclusions

Consistent with abundant research on broad patterns of educational achievement and attainment, we have shown that measures of socioeconomic status can account for group differences in bachelor's degree attainment between 1.5^{th} and 2nd generation Mexican immigrant students in comparison to $3^{rd}+$ generation non-Hispanic white students.[20] The capacity of socioeconomic status

to adjust for the differences observed for 1st generation and $3^{rd}+$ generation Mexican immigrant students is lower, but here imprecise estimation and inherent heterogeneity, respectively, degrade the capacity of the ELS data to assess the effectiveness of adjustment by socioeconomic status.

While developing this primary result, we also used two sets of detailed measures of individual orientations to schooling and beliefs about the future: (1) behavioral commitment to schooling, reported directly by students, their parents, and their teachers, and (2) detailed forward-looking measures of occupational plans and their implied educational requirements. Results utilizing these measures offered little or no support for the dissonant acculturation mechanism that casts 1.5^{th} and 2nd generation Mexican immigrants as groups likely to experience downward assimilation in part because of the behavioral orientations of students themselves. With or without baseline adjustments for socioeconomic status, these student-level measures can account for only a modest portion of group differences in bachelor's degree attainment for these two groups. In possible support of the dissonant acculturation conjecture, observed commitment did account for 40 percent of the bachelor's degree gap for $3^{rd}+$ generation Mexican immigrant students, even though beliefs about the future continued to have little or no explanatory power.

We also assessed the sensitivity of these conclusions by simulating the consequences of 2nd generation Mexican students having much lower levels of commitment to schooling than measured for the ELS, as would perhaps be the case if we had firm evidence (which we do not have) that students engaged in behavior consistent with dissonant acculturation are embedded in an unobserved group of respondents who either refused to participate in the ELS or dropped out of school before they could have been sampled in the spring of the 10th grade. We showed that one could indeed undo the support for some of our main conclusions by making assumptions that, although not implausible, are ones that we regard as far too pessimistic. These results, however, may be

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[19]And we could do better, pushing the rate up to 0.24, if we assume that they passed through the logit coefficients that apply to them, as estimated under their observed distributions.

[20]Although we have not developed our article in a way that makes it directly comparable to the following studies, it bears noting that other scholars have reached similar conclusions with national data sets. Pong and Hao (2007), for example, in an analysis of the National Longitudinal Study of Adolescent Health, show that the difference between the grade point averages of non-Hispanic whites and Mexican immigrant students can be accounted for by differences in measured characteristics of families, schools, and neighborhoods. Relatedly, Bohon, Johnson, and Gorman (2006) show that the lower educational aspirations and expectations of Mexicans in the National Longitudinal Study of Adolescent Health can be accounted for by socioeconomic status. More directly related to our result, Ovink and Kalgorides (2014) show, with the ELS

2002 to 2006 waves, that family background can account for apparent negative effects of familism on rates of college application and college entry, when considering all Hispanic ethnic groups together (i.e., not separating out those who claim Mexican ancestry from others).

encouraging to those who wish to find support in our analysis for alternative conclusions.

Discussion

Sociologists of education cannot be surprised by the main conclusion of this article, given how frequently basic differences in family background have been shown to be of paramount importance in the literature they have built over the past five decades. For most immigration scholars, these patterns may not be surprising either, although they may not be as welcome. Here a primary interest of some scholars is the discovery of knowledge that can be used to design an institutional framework that promotes a swift incorporation of immigrants into the economic mainstream. Highlighting what appear to be persistent effects of parental socioeconomic status does not directly contribute to such knowledge, and it implies that interventions that target the reduction of dissonant acculturation among adolescents will have modest impact on patterns of incorporation.

Nonetheless, in this case, a generalized policy response is available: lowering the costs of obtaining a bachelor's degree. Because family background interventions are difficult to realize, an alternative approach is to reduce the consequences of having been born into a resource-constrained family. Although we cannot of course provide direct evidence of the future benefits that could flow from reducing the cost of bachelor's degrees, the ELS data do clearly suggest that the children of recent Mexican immigrants are responsive to costs.

According to the College Board, in the 2001 to 2002 academic year, when most ELS respondents were first sampled as high school sophomores and entertaining the possibility of pursuing bachelor's degrees, the average tuition and fees totaled $4,956 and $2,116 at public four-year and two-year colleges, respectively (both expressed in 2013 dollars; see the College Board 2013:Table 2). For the 2011 to 2012 academic year, which corresponds to the last wave of ELS data collection, tuition and fees had increased by 73 percent at public four-year colleges and 45 percent at public two-year colleges (to $8,557 and $3,074 in 2013 dollars, respectively). Thus, while tuition increased dramatically for both types of insti-

tutions, the relative cost of a bachelor's degree increased as well.

Examining the ELS data closely, one can see the likely consequences of these changes. First, among ELS respondents who enrolled in at least one postsecondary institution, 2nd generation Mexicans were much more likely than $3^{rd}+$ generation non-Hispanic whites and non-Hispanic blacks to first enter two-year or certificate-offering postsecondary institutions (54 percent compared to 34 and 39 percent for $3^{rd}+$ generation non-Hispanic whites and non-Hispanic blacks, respectively). Second, among those who began their postsecondary education at these types of two-year (or less) institutions, 2nd generation Mexicans were less likely to subsequently enroll in four-year colleges by 2012 (29 percent compared to 34 and 32 percent, respectively).

The results offered in this article support the position that the increasing costs of bachelor's degrees since the 1990s have worked against incorporating the children of recent Mexican immigrants into the economic mainstream. When the segmented assimilation prediction was developed, these dramatic increases in the costs of college could not have been foreseen. Nonetheless, these are the costs that prospective college students now face as they age into young adulthood. If the children of recent Mexican immigrants cannot find a way to cover these costs, then access to middle-class jobs is not within reach, regardless of their behavior in adolescence. Accordingly, segmented assimilation would appear to be a very real threat in the coming decades, but not primarily because of dissonant acculturation.

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Stephen L. Morgan: Johns Hopkins University and Cornell University.
Email: stephen.morgan@jhu.edu.

Dafna Gelbgiser: Cornell University. E-mail: dg432@cornell.edu