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**Campus Life and Class-Based Graduation Gaps** 

# **Going Greek: The Organization of Campus Life** and Class-Based Graduation Gaps

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ocial scientists have long recognized that college students from lower-income households have lower college completion rates than their more affluent peers who are attending the very same schools. Yet parsing the mechanisms through which relative socioeconomic disadvantage and privilege influence college completion has been difficult. This paper leverages a novel dataset comprising information from the Integrated Postsecondary Education Data System, the Education Trust Pell Partnership, and the U.S. News and World Report to investigate the potential influence of Greek letter societies (i.e., fraternities and sororities) on gaps in completion rates between Pell Grant recipients and non-Pell, non-Stafford loan recipients. We find that at selective four-year schools, which tend to enroll students from a wide variety of class backgrounds, the presence of Greek letter societies is associated with greater class-based graduation gaps. The association is evident, but less significant, at the nation's most selective universities. Results suggest that both stratification researchers and higher education administrators should seriously consider the extra-academic features of college life as important mediators of social inequality.

Considerable research documents the sizable graduation gap between lowincome college students and their wealthier peers (e.g., see Pascarella and Terenzini [2005]). Only one-third of low-income college students complete their bachelor's degrees by age 25, compared to two-thirds of more affluent students (Bailey and Dynarski 2011). What remains relatively unexamined, however, is the dramatic variation in class graduation gaps across universities (Butrymowicz 2015). Why do affluent students complete four-year degrees at higher rates than their less affluent peers at some colleges but not others?

Scholars' ability to answer this question has been limited by a focus on individual-level theories that highlight student resources, abilities, and family

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background as primary explanatory factors (Ro, Terenzini, and Yin 2013). In contrast, the influence of the local organizational environment on student success is often overlooked. A recent "campus turn" in postsecondary scholarship emphasizes the importance of organizational arrangements, but most of this work is qualitative and based on a small number of students (Armstrong and Hamilton 2013; Binder, Davis, and Bloom 2016; Binder and Wood 2012; Lee 2016; Stuber 2016; Stevens, Armstrong, and Arum 2008).

This oversight is problematic. Four-year residential universities take different approaches to student housing, as well as provide varied curricular and extracurricular options. Institutional arrangements shape how and with whom particular students interact, the flow of resources among them, and, potentially, class differences in graduation rates. Class-based graduation gaps across schools even those that share basic features such as selectivity and size—are one way of mapping the unequal dispersion of postsecondary opportunity.

A long-standing feature of residential schools is the Greek system. Scholars have identified Greek organizations as a source of homophily among students (Stearns, Buchmann, and Bonneau 2009; Walker, Martin, and Hussey 2015) and have noted that Greek members enjoy higher rates of persistence than their non-Greek peers (Astin 1977; Pike 2003; Tinto 1993; Walker, Martin, and Hussey 2015). Of particular relevance is sorting on the basis of social class: Both the National Longitudinal Survey of Freshman and the Online College Social Life Survey confirm that Greek members are from higher-SES families than their non-Greek peers. Universities that house Greek organizations may thus isolate affluent students from less affluent students and unevenly offer social opportunities that boost graduation rates.

In this article, we ask: Is Greek life on campus related to inequities in college completion? At each school, we compare institutional graduation rates for students who do not receive federal grant support or Stafford loan support (the top 30 percent of the college-going population [Executive Office of the President of the United States 2015]) to those of federal Pell Grant recipients typically from households with income of \$30,000 or less (the bottom 30 percent [US Department of Education 2014a, 2014b]). We assess the robustness of Greek life using both the percentage of Greek-identified students and the presence of oncampus Greek housing. Because existing datasets are limited in addressing our research question, we created a unique dataset, linking information from the Integrated Postsecondary Education Data System, the Education Trust Pell Partnership, and the U.S. News and World Report.

We parallel scholarship documenting ways in which neighborhoods pattern inequities (Harding et al. 2011; Sampson, Morenoff, and Gannon-Rowley 2002). Residential segregation often concentrates resources by race and class, making some communities opportunity rich and others opportunity poor (e.g., Massey and Denton 1933). Similarly, we examine the relationship between segregation via residential Greek life and the equality of educational opportunity available on campus, as measured by the class graduation gap.

# The Importance of Organizational Context

Scholars tend to explain low college completion rates among low-income students by looking at individual and familial factors: These students arrive in need of academic remediation, lack educational resources in the home, and do not have family members who know how college works (see Astin and Oseguera [2012] and Walpole [2003] for reviews). Research focused primarily on individual factors, however, has limitations.

For example, it cannot adequately explain why affluent students complete degrees at higher rates at some colleges but not others, why low-income students have different completion rates across universities, and most importantly, why class gaps in completion rates are large at some schools and small at others. Even among schools that draw similar student populations, these gaps vary widely. The key to understanding this variation may lie in organizational factors that move the needle one way or another. Yet, in much stratification research the college context itself remains a black box (Stevens, Armstrong, and Arum 2008).

There are exceptions to organizational oversight in stratification scholarship. The "horizontal stratification" literature draws attention to the possibility that university arrangements may differ in ways that are consequential for students. Yet, debates are often focused on a limited set of factors—selectivity, control (i.e., public or private), size, and student body composition (see Astin and Oseguera [2012]; also Alon and Tienda [2005]; Bowen, Chingos, and McPherson [2009]; Dale and Krueger [2002]; Scott, Bailey, and Kienzl [2006]). Recently, scholars have pushed for more attention to organizational features that influence college students' social and academic experiences (Armstrong and Hamilton 2013; Binder and Wood 2012; Pascarella and Terenzini 2005; Ro, Terenzini, and Yin 2013; Stuber 2011).

The world society tradition also emphasizes the need to focus on the organizational level—and to move beyond individual outcomes. As Meyer (1977) argues, what is most consequential about education is not necessarily how any given student fares, but instead the ways in which schools stratify and legitimate inequalities in society. Schools are not just "organizations processing individuals" (59); thus, we might attempt to predict which schools are more (or less) egalitarian distributers of opportunities. To date, however, a lack of communication between the world society tradition and stratification research has limited the potential for intellectual cross-fertilization.

Residential campuses, like neighborhoods, organize many aspects of students' lives. Universities offer distinct "pathways" that include social and academic infrastructure designed to serve particular constituencies (Armstrong and Hamilton 2013). Schools that compete for rank, students, and forms of recognition often have similar pathways (Espeland and Sauder 2007; Lifschitz, Sauder, and Stevens 2014). There is variation, however, in how much schools facilitate any given pathway (Armstrong and Hamilton 2013), and the local context takes on a different flavor across campuses (Binder and Wood 2012; Binder, Davis, and Bloom 2016; Stuber 2011; see Clark's [1972] concept of the "organizational saga"). The organization of housing and the types of academic and extracurricular options on offer shape interactions among students (Armstrong and Hamilton 2013; Stuber 2011, 2016). In this way, school infrastructure may shift the degree of class segregation —with consequences for equality.

#### The Class-Based Greek System

"Social" fraternities and sororities have a rich history in the US postsecondary system. In 1825, at Union College in New York, five senior men founded the first college fraternity. By the 1850s, Greek-letter fraternities had spread to virtually every college in the New England and mid-Atlantic region and were beginning to make headway in the South and Midwest, where they would eventually form a stronghold (Syrett 2009). These organizations were largely recreational—in sharp contrast to the dry drills of Latin, Greek, and mathematics central to the formal university curriculum (Syrett 2009). Nearly 50 years after the first fraternity, the first "women's fraternity" was founded (Turk 2004).

During this foundational period, only a tiny fraction of the US population attended college, and most students were from affluent, white families who could afford the opportunity cost (Thelin 2004). Students in Greek organizations, therefore, were from a similar class background as their peers. The early to mid-1900s brought postsecondary expansion and "massification," as colleges accommodated new populations seeking mobility (Horowitz 1987; Roksa et al. 2007). Greek organizations became more exclusive in this period, as they maintained sharp class (and race) boundaries in the face of increasing heterogeneity on college campuses (Horowitz 1987).

As a response, African American (and later Latino/a and multicultural) organizations developed starting in the early 1900s. These organizations play a different role on college campuses, as they have been important for minoritized students' mobility and comfort in postsecondary institutions (Hughey and Parks 2011; Parks 2008). However, they never gained the same power. Today these organizations are far outnumbered by historically white fraternities and sororities on virtually all campuses and rarely have private property holdings (Ray and Rosow 2009). Notably, Greek organizations specifically designed for lowincome or first-generation students never formed.

The power of the historically white Greek system was challenged in the 1960s and early 1970s by university counterculture (Horowitz 1987). Soon, however, states would begin to reduce support for higher education (Loss 2012). Many universities looked to the Greek system to attract students who could pay higher tuition rates, as well as to ensure the largess of alumni. The historically white Greek system was on the upswing headed into the 1980s, as exhibited by the 1978 film Animal House (Horowitz 1987). The Greek system formed a central piece of a "party pathway" designed to attract and retain wealthy students (Armstrong and Hamilton 2013). Underage drinking on campus revolved around predominately white fraternities, which hosted parties and provided alcohol to female guests (Armstrong, Hamilton, and Sweeney 2006). Universities also came to rely on the housing that these organizations provided.

It is important to recognize that colleges have control over Greek life on their campuses. They determine if Greek organizations are allowed, and which types of organizations will be present. Schools can block the establishment of new chapters or ban existing chapters. They can allow chapters to hold private property on campus and offer Greek organizations relaxed alcohol policing, control over social life on campus, and special ties to administration. When these perks are available, membership tends to be more sizable. A thriving Greek system also attracts additional chapters, as national organizations seek to expand their dues-paying members.

Class segregation is reinforced by the Greek system through several mechanisms. The first is self-selection. Students from affluent families are more likely to know about the Greek system and be encouraged by peers and parents, many of whom are "legacies," to rush (Hamilton 2016). The cost of involvement also disinclines less affluent students—for example, annual membership dues often range into the thousands. The second is direct exclusion. Affluent members tend to select others who share similar cultural tastes, social networks, and orientations to college. Thus, even if low-income students attempt to join, they have a reduced likelihood of being chosen as a member (Armstrong and Hamilton 2013). Finally, an ongoing process of network differentiation occurs. Students in Greek organizations may socialize primarily with other Greek members, thus reinforcing class (and race) segregation (Stearns, Buchmann, and Bonneau 2009).

For our purposes, it does not matter which of these mechanisms are at work. Often they are co-occurring and mutually reinforcing. What is important is the fact that sorting into class groups would not occur as efficiently and effectively without the presence of Greek organizations.

### Segregation and Graduation

Is the class segregation generated by Greek life associated with graduation disparities? Below, we present several hypotheses. The hypotheses use causal language for ease of presentation. However, our survey data allow only for descriptive and associational conclusions—not the determination of causality.

Hypothesis 1: Greek life on campus exacerbates class gaps in graduation. Segregation can lead to group differences in achievement (see Coleman [1966, 1990]). Greek organizations concentrate information about classes, majors, extracurricular activities, and internships in the hands of more privileged students, as well as fostering a belief in college graduation as an inevitable step. Members may pool funds or material goods and tap into shared social networks. These resources are class linked and support college completion (Walpole 2003). Fraternities and sororities also facilitate members' integration into campus, which has been shown to boost persistence—but only for students who have access to these organizations (Pascarella and Terenzini 2005; Pike 2003; Tinto 1993).

Hypothesis 2: Greek life has no effect on class gaps in college graduation. As the horizontal stratification literature suggests, it is difficult to identify malleable organizational characteristics that shift student outcomes, in the aggregate (Gerber and Cheung 2008). In addition, college completion is often treated as an academic outcome, and Greek students'

GPAs are lower than those of non-Greeks (Donato and Thomas 2017). Consequently, the presence of Greek organizations may be irrelevant to student success in the academic sphere.

Hypothesis 3: Greek life reduces class gaps in graduation. There is a third, although less plausible, option. Greek life is often associated with a heavy social focus that may detract from academic performance (Armstrong and Hamilton 2013; Donato and Thomas 2017). Therefore, class-based completion gaps at a school with robust Greek life may be reduced due to a performance detriment experienced by affluent students in these organizations.

While hypotheses 1–3 above are mutually exclusive, they should be considered alongside two additional hypotheses that are not:

Hypothesis 4: The effect of Greek life on class graduation gaps is a function of other factors. The influence of Greek life on class disparities may not be a function of the class segregation these organizations encourage. Instead, it could be driven by organizational characteristics that predict both Greek life and large class graduation gaps, or the selection of particular types of students onto campuses with robust Greek life. Our empirical analyses control for a number of organizational features and student body characteristics.

Hypothesis 5: The effects of Greek life vary by organizational context. The four-year residential postsecondary sector is diverse—including everything from open-access organizations serving primarily lowincome students to the most elite schools in the system. Greek life may have differential effects across the sector. In a final set of interactive analyses, we are attentive to the organizational context and ways that it might magnify (or minimize) any potential relationships between of Greek life and class graduation disparities.

## **Data, Measures, and Methods**

#### Data

We compiled a unique dataset linking three school-level data sources: the Integrated Postsecondary Education Data System (IPEDS), the Education Trust Pell Partnership (EdTrust), and the U.S. News and World Report (USN). Our data are at the aggregate level. We are not focused on how Greek membership shapes individual outcomes, or on how the presence of Greek life on campus affects any single student. Rather, we are looking for patterns of inequities across class groups.

Our first data source, IPEDS, is the National Center for Education Statistics' core data collection program for postsecondary organizations in the United States. It provides information on topics such as enrollment, acceptance rates, student body characteristics, major offerings, costs, revenue, and graduation rates. Although Pell Grants are the US Department of Education's largest single expenditure, graduation rates by Pell status are not included, as colleges and universities are not obligated to report these data to the Department of Education (Butrymowicz 2015).

The Education Trust provides an accurate accounting of Pell student graduation rates. This advocacy organization purchased Pell data from the USN and collected their own data for several hundred schools that refused to disclose this information. For graduation rates among the most affluent students—those who do not qualify for or need any federal assistance—we relied on the non-Pell, non-Stafford loan graduation rates reported by schools to USN, via a data program known as the College Compass. The USN's non-Pell graduation rates are more precise than those from the EdTrust, which rely on constructed estimates using IPEDS data. Finally, we utilized USN's College Compass program for information about Greek life on campus, as IPEDS is limited in data on the organization of social life.

We consider six-year graduation rates and gaps across schools for the cohort that entered college in 2007-2008. Our initial sample includes 1,379 colleges and universities that are four-year public or private nonprofit, Title IV and bachelor's degree granting, and located in the 50 states or Washington, DC. All were active in the 2007-2008 and 2012-2013 academic terms, enrolled 500 or more first-time and full-time undergraduates, and offered some form of oncampus housing. Carnegie special organizations, such as medical schools and centers, schools of law, engineering schools, theological schools and schools of art, music, and design, were excluded.

To address missing data, we generated m = 20 datasets with multiple imputations by chained equations. This technique uses observed data to simulate missing values (Royston 2005). The datasets are analyzed individually, and the results are combined to produce estimates accounting for missing data uncertainty (Little and Rubin 2002). Missing cases in dependent variables are included in imputation equations but excluded in descriptive and regression analyses (von Hippel 2007). As a result, our sample includes 1,082 schools; 297 are lost to missing data. Table 1 presents the percent of imputed cases for each variable in the analytic sample.<sup>3</sup>

### **Dependent and Independent Measures**

Table 1 also offers summary statistics and a description of the variables included in the analyses. When possible, measures of school features that vary over time include averages from the academic years 2007–2008 through 2012–2013.<sup>4</sup>

#### Pell graduation rates and gaps

Our dependent measures are six-year graduation rates and gaps by Pell status. We chose to focus on the six-year gap because it often takes low-income students longer to complete college (Bailey and Dynarski 2011). We compare the school graduation rate for students who are not recipients of Pell Grants or federal Stafford loans with those who are recipients of Pell Grants. These two groups

Table 1. Summary Statistics and Description of Variables in the Analyses

Name	Mean	SD	Description/Question wording/Coding	% Imputed
PELL GRADUATION	N RATES	SAND	GAPS	
Non-Pell/Pell graduation gap	6.19	10.92	Gap in 2013 = (Non-Pell/non-Stafford graduation rate – Pell graduation rate), ranged from –56.0 to 53.9 percent.	_
Non-Pell/non- Stafford graduation rate	58.75	17.79	6-Year graduation rate for students who did not receive a Pell grant or subsidized Stafford loan in 2013, ranged from 11.0 to 98.0 percent.	_
Pell graduation rate	52.56	18.55	6-Year Pell graduation rate for students who received a Pell grant in 2013, ranged from 13.1 to 100 percent.	_
GREEK LIFE ON CA	MPUS			
Percent Greek students	8.46	11.91	Percent of undergraduate students in fraternities or sororities in 2013, derived from percent of fraternity and sorority students weighted by gender ratio of student body. Ranged from 0 to 82.0 percent.	6.5
Greek housing on campus	0.38	0.48	Dummy variable for whether Greek houses have on-campus housing properties in 2014. Yes = $1$ , No = $0$ .	9.7
SELECTIVITY AND	CONTR	.OL		
Carnegie classification	_	_	Dichotomous variables measuring the degree of selectivity at four-year schools based on 2010 Carnegie classifications. Inclusive (reference group) = 21.7%, Selective = 51.7%, More selective = 26.5%.	2.0
Acceptance rate	64.45	16.77	Averaged acceptance rate from the Fall of academic years 2007 to 2012, ranged from 8.1 to 99.4 percent.	2.4
Private school	0.58	0.49	Private college = 1, Public college = 0.	_
OTHER ORGANIZA	TIONA	L CHA	RACTERISTICS	
Net cost for low- income students	13.08	5.41	Averaged net cost in \$1,000 for low-income students (reported annual family income is between 0 to 30,000 dollars) from academic years 2008–09 to 2012–13, ranged from –16.38 to 30.85. Net cost is the sum of tuition, living, and books minus scholarships and grants to low-income students.	0.3
Minority-serving designation	0.11	0.31	Yes = $1$ , No = $0$ .	0.1
Percent of graduates with STEM majors	18.09	14.20	Percent of graduating majors in STEM fields in academic year 2012–13.	_

(Continued)

Table 1. continued

Name	Mean	SD	Description/Question wording/Coding	% Imputed
Endowment amount per student	2.42	1.63	Average endowment in log of \$1,000 per full-time student at the end of each fiscal year from 2007 to 2012, ranged from -3.84 to 7.67.	0.8
Size	7.16	8.15	Institution size in thousands measured as the averaged total enrolled from the academic years 2007–08 to 2012–13.	_
Urbanicity	_	_	Dichotomous variables measuring institution location. City (reference group) = 47.0%, Suburban = 23.6%, Town = 24.3%, Rural = 5.2%.	_
Region	_	_	Dichotomous variables measuring region. Northeastern (reference group) = 28.5%, Central = 23.5%, Pacific = 10.3%, Southern = 24.2%, Western = 13.6%.	_
OTHER STUDENT	BODY C	HARA	CTERISTICS	
Percent of Pell recipients	33.53	15.41	Averaged percent of Pell recipients among undergraduate students from academic years 2007–08 to 2012–13, ranged from 6.0 to 93.8 percent.	0.3
Percent of women enrolled	56.70	11.37	Percent of women enrolled in academic year 2012–13.	0.1
Percent of black and Hispanic students enrolled	21.00	20.00	Percent of black and Hispanic students enrolled in academic year 2012–13.	0.1

Note: Data are compiled from the Integrated Postsecondary Data System, U.S. News and World Report College Compass, and the Education Trust. N = 1,082. City = Inside an urbanized area; Suburb = Territory outside a principal city but inside an urbanized area; Town = Territory inside an urban cluster, up to 35 miles from an urbanized area; and Rural = Not in an urban cluster or inside an urbanized area. Northeastern region includes CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, and DC; Central region includes IL, IN, IA, KY, MI, MN, MO, OH, and WI; Pacific region includes AK, AZ, CA, HI, NV, OR, UT, and WA; Southern region includes AL, AR, FL, GA, LA, MS, NC, SC, TN, VA, and WV; and Western region includes CO, ID, KS, MT, NE, NM, ND, OK, SD, TX, and WY. Missing values in independent variables are imputed using multiple imputations (m = 20). Following von Hippel (2007), missing cases in dependent variables are included in the imputation equations but excluded in descriptive and regression analyses.

represent the most and least affluent students on campus, respectively. On average, there is a 6.19 percent graduation gap for non-Pell/non-Stafford students relative to their Pell recipient peers. There is wide variation in this gap across campuses. In a handful of schools, Pell students have a graduation advantage, but in most schools they are disadvantaged. The largest graduation gap in favor of non-Pell/non-Stafford students is 53.9 percent.<sup>5,6</sup>

#### Greek life on campus

We use two measures of Greek life on campus. The first is the percentage of undergraduates who are members of Greek organizations. This measure ranges from 0 to 82 percent. We also include whether or not universities offer on-campus housing for Greek organizations. We coded Greek housing on campus as a 1 if either fraternity or sorority housing was listed or the number of fraternity or sorority chapter houses was at least 1 in the USN College Compass program.<sup>9</sup>

#### Selectivity and control

As selectivity increases, so do graduation rates. It is difficult to determine if this is a function of the type of students that attend or if the most selective schools offer infrastructure that helps students increase completion rates—or some combination of both (Gerber and Cheung 2008). Research suggests, however, that college selectivity may be important for disadvantaged students' college completion (Bowen, Chingos, and McPherson 2009).

The most common selectivity measure is the Carnegie Classification. Schools are ranked as inclusive, selective, or more selective if first-year students' SAT scores fall roughly into the bottom two-fifths, middle two-fifths, or top one-fifth of those starting at baccalaureate organizations, respectively. Supplemental analyses including a constructed measure of average SAT score, both with and without the Carnegie measure, produced nearly identical results. 10

The acceptance rate, or percentage of applicants that are admitted, is utilized as an additional selectivity measure. Although there is a wide range of acceptance rates within Carnegie categories, more selective schools admit a smaller proportion of applicants (average acceptance rate = 53 percent) than inclusive schools (average acceptance rate = 67 percent). Finally, school control is included. Private, nonprofit schools have higher graduation rates, on average, than public schools (NCES 2014).

#### Other organizational characteristics

Our analyses incorporate several additional postsecondary characteristics, in order to ensure that any associations of Greek life with graduation gaps are not a function of some other university features.

We include the net price for students with a family income of 30,000 dollars or less. Because the purchasing power of the Pell Grant has been steadily declining over the past 40 years, Pell Grant recipients often struggle to afford postsecondary education, even with federal aid (Goldrick-Rab 2016). Schools can help low-income students by offering additional financial aid that helps subsidize the cost. A lower net price may thus increase the odds of Pell student graduation.<sup>11</sup>

Minority-serving institutions, such as historically black colleges and universities (HBCUs) and Hispanic-serving institutions (HSIs), often actively address both race- and class-based inequities in college experiences (Conrad and Gasman 2015). They may have programs or structures in place that help disadvantaged students reach degree completion. Our analyses thus incorporate an indicator of this status.

Available curricula may also matter. College majors vary in their level of difficulty, and STEM majors often have some of the lowest average GPAs (Arum and Roksa 2011; Charles and Bradley 2009). Students in these majors may be less likely to persist at the school of origin, or take more than six years to graduate. Our STEM measure sums the percent of students in engineering, computer science and technology, life sciences, math, and physical sciences at a given school.

Endowments are financial assets that can be used for future investments or university and student-related expenditures. Endowment amounts are tightly linked to selectivity; in 2015, just 60 prestigious schools received half of the total donations granted to postsecondary organizations (Lederman 2016). We include the endowment amount per full-time student at fiscal year-end, using the log of 1,000-dollar units to reduce skew.

Larger schools may have enough students, land, and buildings to support Greek systems on campus. The size measure includes all students who are enrolled (both full-time and part-time). Finally, we include two location variables that tap into place-based variation in graduation outcomes. One is urbanicity of the school, with city as the reference category. The other is region, with the Northeast as the reference. 12

#### Other student body characteristics

We include a number of student body characteristics, beyond those captured by selectivity measures, to help address issues of self-selection into universities with Greek systems.

The percentage of students that are Pell Grant recipients is important because low-income students face considerable barriers to graduation (Bailey and Dynarski 2011; Stuber 2011). The class composition of the student body may also shape the success of all students (see Coleman [1966, 1990]). Pell Grant recipients often contribute to class and race diversity on campus; however, they may have less access to the cultural, social, and financial resources that more advantaged students could share with their peers. Thus, campuses with higher rates of Pell students may also have relatively lower non-Pell graduation rates.

The percent of women and percent of black and Hispanic students enrolled are also included. Women currently graduate at higher rates than men (Buchmann and DiPrete 2006), and black and Hispanic students graduate at significantly lower rates than white and Asian students (NCES 2014). Much of the racial gap in graduation, however, can be attributed to class differences in resources (DesJardins, Ahlburg, and McCall 2002).

### Mapping Greek Life to School Characteristics

Before turning to our analyses, we offer some context. We ask: Where can we expect the most robust Greek activity? Table 2 presents relevant correlations and mean differences.

As selectivity increases, so does Greek membership. More selective schools are more likely to have propertied Greek systems, and less inclusive schools are less likely. Schools with higher percentages of fraternity and sorority members also tend to have lower acceptance rates. However, Greek life is still present in some less selective regional universities and liberal arts colleges.

Private schools have more Greek members on campus; however, they are less likely to offer Greek housing. This may be related to the relatively smaller size of many private schools; residential Greek life is more developed at universities with larger student bodies.

The net price for low-income students is lower at schools with residential Greek systems, perhaps due to greater resources that can be devoted to disadvantaged student populations at selective organizations. Minority-serving institutions are less likely to house residential Greek life. Colleges with more developed Greek systems have more students in STEM majors. They also boast larger endowments.

There are some differences in the location of colleges and universities with Greek life. Schools with propertied Greek systems tend to be located in cities and towns, but are less common in the suburbs and rural areas. Pacific schools, followed by Western schools, are the least likely to have residential Greek life, whereas those in the Central and South regions are the most likely.

Finally, schools with more robust Greek life tend to have fewer Pell recipients on campus. As the percentage of women goes up, the size of the Greek system and the likelihood of having Greek housing on campus—goes down. The same pattern exists for the percent of black and Hispanic students on campus.

Table 3 provides some concrete examples of schools with both low (0-1 percent) and high (>10 percent) Greek membership, by Greek housing on campus. A school for each region is included, and examples are representative of a number of other schools in the category. Note that when Greek housing is present on campus, it is extremely unusual to have low Greek membership.

# Analytic Approach

At each stage, we present results for percent of Greek members and the presence of university-provided Greek housing. We do so in separate models, as the measures have a high degree of collinearity (r = 0.48). First, we examine how a robust Greek system is related to the gap in graduation rates between non-Pell/non-Stafford students and Pell Grant students. Next, we identify the source of the gap by separately considering how Greek life is associated with non-Pell and Pell graduation rates. Both sets of analyses include bivariate models, adding measures of selectivity and control, and then all organizational and student body characteristics. In a final set of analyses, we take a closer look at how Greek membership and property are linked to graduation rates at different types of campuses, with a focus on selectivity.

#### Results

## The Non-Pell/Pell Graduation Gap

Table 4 presents coefficients for the regression of the non-Pell/non-Stafford graduation rate minus the Pell graduation rate on the percent of Greek students on campus (models 1, 3, and 5) and Greek housing on campus (models 2, 4, and 6).

Table 2. Correlation and Mean Differences of School Characteristics by Greek Life on Campus

	Correlation with	Mean differences by on-campus Greek housing		
Variable	students	Yes	No	Dif.
SELECTIVITY AND CONTROL				
Carnegie classification <sup>a</sup>	0.27**	2.32	1.89	가 가
Inclusive		0.09	0.29	* *
Selective		0.50	0.53	
More selective		0.41	0.18	* *
Acceptance rate	-14**	64.45	64.45	
Private school	0.09**	0.43	0.67	가 가
OTHER ORGANIZATIONAL CHARACTERIST	TCS			
Net cost for low-income students	0.02	11.88	13.80	* *
Minority-serving designation	-0.08**	0.04	0.15	* *
Percent of graduates with STEM majors	0.13**	22.82	15.25	* *
Endowment amount per student	0.28**	2.67	2.28	* *
Size	0.03	11.38	4.62	* *
Urbanicity	_			
City	_	0.52	0.44	*
Suburban	_	0.18	0.27	가 가
Town		0.28	0.22	†
Rural	_	0.03	0.07	*
Region	_			
Northeastern	_	0.21	0.33	가 가
Central	_	0.30	0.20	* *
Pacific	_	0.10	0.11	
Southern	_	0.26	0.23	
Western	_	0.14	0.14	
OTHER STUDENT BODY CHARACTERISTICS				
Percent of Pell recipients	-23**	28.21	36.72	* *
Percent of women enrolled	-20**	53.14	58.84	* *
Percent of black and Hispanic students enrolled	-09**	15.59	24.25	26- 26-

**Note:** N = 1,082. All statistics are adjusted by multiple imputations for missing cases in independent variables (m = 20).

<sup>†</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01 (two-tailed).

<sup>&</sup>lt;sup>a</sup>Assumed as continuous variable (1 = inclusive, 2 = selective, 3 = more selective) in correlations and mean values.

	No Greek hous	ing on campus	Greek housing	g on campus
Geographic region	Low membership $(N = 328)$	High membership $(N = 70)$	Low membership $(N = 11)$	High membership $(N = 210)$
Northeastern	Framingham State College	La Salle University	University of Southern Maine	University of Delaware
Central	Oberlin College	Denison University	University of Missouri-St. Louis	Hanover College
Pacific	Evergreen State College	Pepperdine University	California State University-Los Angeles	Oregon State University
Southern	New College of Florida	University of Tampa	N/A	University of Alabama
Western	Western State	Baylor	South Dakota	University of

Table 3. Example Schools by Greek Housing on Campus, High/Low Membership, and Geographic Region

Note: Low = 0-1 percent of students with Greek membership. High = More than 10 percent of students with Greek membership.

University

State University

Nebraska-Lincoln

Colorado

University

Model 1 indicates that at the bivariate level, a percentage increase in Greek members is associated with a 0.08 percent increase in the non-Pell versus Pell graduation gap (p < 0.01). That is, campuses with more Greek students are associated with a modest but significant difference in the graduation gap, favoring more affluent students. Similarly, as we see in model 2, schools with Greek housing on campus have greater graduation gaps (b = 2.90, p < 0.01).

Models 3 and 4 add three key characteristics—selectivity (i.e., Carnegie classification), acceptance rate, and control (i.e., private school). Higher percentages of Greek students are linked to greater disparities associated with Pell status (b = 0.11, p < 0.01), as is the presence of Greek housing (b = 3.11, p < 0.01). As the acceptance rate increases, the non-Pell versus Pell graduation gap grows. As model 3 suggests, private schools also have lower graduation gaps, on average, than do their public counterparts.

In models 5 and 6, we include all organizational and student body variables. Very few factors are linked to the Pell graduation gap, and one of them is a robust Greek system. High percentages of Greek students and Greek housing on campus are both associated with higher graduation gaps favoring non-Pell students (b = 0.08, p < 0.05, and b = 2.21, p < 0.01, respectively), net of other organizational characteristics. We see control and selectivity relationships: Private and more selective schools, in comparison to inclusive schools, have lower Pell graduation gaps. As the net price for low-income students rises, so does the graduation gap favoring the most affluent. There is also a regional

Table 4. OLS Regression Coefficients for Non-Pell/Pell Graduation Gap

Independent variables
Percent Greek students   0.08**   0.11**   0.08*
SELECTIVITY AND CONTROL
SELECTIVITY AND CONTROL           Carnegie classification         Selective         0.58         0.04         -0.86         -1.05           More selective         -0.77         -1.48         -3.14*         -3.27*           Acceptance rate         0.07**         0.06**         0.02         0.02           Private school         -1.53*         -0.55         -2.96*         -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         0.17†         0.17†         0.17†           Net cost for low-income students         -0.72         -0.54         -0.54         -0.72         -0.54           Minority-serving designation         -0.01         -0.02         -0.02         -0.02         STEM majors         -0.01         -0.02         -0.02         -0.03         0.37         0.39         -0.03         0.09         0.01         Urbanicity         -0.06         0.01         Urbanicity         -0.06         0.01         1.18         -0.09         0.90         -0.90         -0.48         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48         -1.30         -1.48
Carnegie classification         Selective         0.58         0.04         -0.86         -1.05           More selective         -0.77         -1.48         -3.14*         -3.27*           Acceptance rate         0.07**         0.06**         0.02         0.02           Private school         -1.53*         -0.55         -2.96*         -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         -0.17†         0.17†         0.17†           Net cost for low-income students         -0.72         -0.54         -0.54           Minority-serving designation         -0.01         -0.02         -0.54           Percent of graduates with STEM majors         -0.01         -0.02         -0.02           Endowment amount per student         0.37         0.39         0.39           Size         0.06         0.01         0.01           Urbanicity         Suburban         1.06         1.18           Town         0.94         0.90           Rural         -1.48         -1.30           Region
Selective         0.58         0.04         -0.86         -1.05           More selective         -0.77         -1.48         -3.14*         -3.27*           Acceptance rate         0.07** 0.06** 0.02         0.02           Private school         -1.53* -0.55         -2.96* -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         0.17† 0.17†           Net cost for low-income students         0.17† 0.17†           Minority-serving designation         -0.72 -0.54           Percent of graduates with STEM majors         -0.01 -0.02           Endowment amount per student         0.37 0.39           Size         0.06 0.01           Urbanicity         0.06 0.01           Urbanicity         1.06 1.18           Town         0.94 0.90           Rural         -1.48 -1.30           Region         -1.48 -1.30
More selective         -0.77         -1.48         -3.14*         -3.27*           Acceptance rate         0.07**         0.06**         0.02         0.02           Private school         -1.53*         -0.55         -2.96*         -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         0.17†         0.17†           Net cost for low-income students         0.17†         0.17†           Minority-serving designation         -0.72         -0.54           Percent of graduates with STEM majors         -0.01         -0.02           Endowment amount per student         0.37         0.39           Size         0.06         0.01           Urbanicity         0.94         0.90           Rural         -1.48         -1.30           Region         -1.48         -1.30
Acceptance rate         0.07**         0.06**         0.02         0.02           Private school         -1.53*         -0.55         -2.96*         -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         0.17†         0.17†         0.17†           Net cost for low-income students         -0.72         -0.54         -0.54           Minority-serving designation         -0.72         -0.54         -0.54           Percent of graduates with STEM majors         -0.01         -0.02         -0.02           Endowment amount per student         0.37         0.39         0.39           Size         0.06         0.01         0.01           Urbanicity         Suburban         1.06         1.18           Town         0.94         0.90           Rural         -1.48         -1.30           Region         -1.48         -1.30
Private school         -1.53* -0.55         -2.96* -2.73*           OTHER ORGANIZATIONAL CHARACTERISTICS         0.17† 0.17†           Net cost for low-income students         0.17† 0.17†           Minority-serving designation         -0.72 -0.54           Percent of graduates with STEM majors         -0.01 -0.02           Endowment amount per student         0.37 0.39           Size         0.06 0.01           Urbanicity         0.94 0.90           Rural         -1.48 -1.30           Region         -1.48 -1.30
OTHER ORGANIZATIONAL CHARACTERISTICS           Net cost for low-income students         0.17† 0.17†           Minority-serving designation         -0.72 -0.54           Percent of graduates with STEM majors         -0.01 -0.02           Endowment amount per student         0.37 0.39           Size         0.06 0.01           Urbanicity         Suburban         1.06 1.18           Town         0.94 0.90           Rural         -1.48 -1.30           Region         -1.48 -1.30
CHARACTERISTICS           Net cost for low-income students         0.17† 0.17†           Minority-serving designation         -0.72 -0.54           Percent of graduates with STEM majors         -0.01 -0.02           Endowment amount per student         0.37 0.39           Size         0.06 0.01           Urbanicity         Suburban         1.06 1.18           Town         0.94 0.90           Rural         -1.48 -1.30           Region         -1.48 -1.30
students         Minority-serving designation       -0.72       -0.54         Percent of graduates with STEM majors       -0.01       -0.02         Endowment amount per student       0.37       0.39         Size       0.06       0.01         Urbanicity         Suburban       1.06       1.18         Town       0.94       0.90         Rural       -1.48       -1.30         Region
designation         Percent of graduates with STEM majors       -0.01       -0.02         Endowment amount per student       0.37       0.39         Size       0.06       0.01         Urbanicity         Suburban       1.06       1.18         Town       0.94       0.90         Rural       -1.48       -1.30         Region
STEM majors         Endowment amount per student       0.37       0.39         Size       0.06       0.01         Urbanicity       0.06       0.01         Suburban       1.06       1.18         Town       0.94       0.90         Rural       -1.48       -1.30         Region
student       Size     0.06     0.01       Urbanicity
Urbanicity         1.06         1.18           Town         0.94         0.90           Rural         -1.48         -1.30           Region
Suburban       1.06       1.18         Town       0.94       0.90         Rural       -1.48       -1.30         Region
Town 0.94 0.90  Rural -1.48 -1.30  Region
Rural -1.48 -1.30 Region
Region
Central 4 08** 4 08**
1.00 7.00
Pacific -0.98 -0.84
Southern 2.19* 2.42*
Western 2.01† 2.03†
OTHER STUDENT BODY CHARACTERISTICS
Percent of Pell recipients -0.01 -0.02
Percent of women -0.02 -0.03 enrolled

(Continued)

Table	4.	continued

	Biv	Bivariate		Basic characteristics		model
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
Percent of black and Hispanic students enrolled					-0.03	-0.02
Constant	5.53**	5.11**	1.77	2.03	3.70	4.72
F value	7.09	16.50	6.55	7.17	3.62	3.67
p-value	0.01	0.00	0.00	0.00	0.00	0.00
$R^2$	0.01	0.02	0.03	0.03	0.07	0.07

**Note:** N = 1,082. All coefficients are adjusted by multiple imputations for missing cases in independent variables (m = 20). Inclusive, city, and Northeastern schools are reference categories.

effect, with Central, Southern, and Western schools having significantly greater graduation gaps than those in the Northeast.

### Explaining the Gap

Why is Greek life associated with a more severe Pell graduation gap? It is useful to look at factors that shape the graduation rates of non-Pell/non-Stafford and Pell students as separate groups. Turning to tables 5 and 6, we see that at the bivariate level, the percent of Greek students and the presence of Greek property on campus are associated with increases in graduation rates for both class groups. However, in comparing models 3 and 4 across the tables, a difference is apparent.

After adding selectivity and control measures, Greek membership and Greek housing continue to have a positive relationship with non-Pell graduation rates (b = 0.10, p < 0.01, and b = 3.78, p < 0.01, respectively), as displayed in table 5. This is, in part, a function of the types of colleges and universities that typically house residential Greek life; however, a distinct Greek effect remains. Models 3 and 4 highlight the fact that affluent students may be aided by both Greek life and selectivity, as measured by Carnegie classification and acceptance rates.

In contrast, a link between Greek life and graduation rates disappears for Pell students in models 3 and 4 of table 6. This is largely a function of adding selectivity to the model. Selective campuses, which offer a graduation rate boost for disadvantaged students, also tend to have more robust Greek life. Upon controlling for selectivity, we see that Greek life no longer has a positive relationship with Pell student graduation.

Class differences remain in the full models. Models 5 and 6 of table 5 show that non-Pell students still retain a graduation rate advantage as the percentage of Greek students increases (b = 0.09, p < 0.01) and when there is Greek

<sup>†</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01 (two-tailed).

Table 5. OLS Regression Coefficients for Non-Pell/Non-Stafford Graduation Rates

	Bivariate		Basic char	acteristics	Full model		
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)	
GREEK LIFE ON CAN	APUS .						
Percent Greek students	0.42**		0.10**		0.09**		
Greek housing on campus		9.08**		3.78**		1.62*	
SELECTIVITY AND CONTROL							
Carnegie classification							
Selective			13.34**	12.64**	4.67**	4.53**	
More selective			32.40**	31.30**	13.04**	13.07**	
Acceptance rate			-0.14**	-0.15**	-0.11**	-0.12**	
Private school			5.38**	6.54**	5.55**	5.71**	
OTHER ORGANIZAT CHARACTERISTICS	ΓΙΟΝΑL						
Net cost for low-income students					-0.16*	-0.16†	
Minority-serving designation					3.71*	3.88*	
Percent of graduates with STEM majors					0.02	0.01	
Endowment amount per student					2.05**	2.10**	
Size					0.29**	0.26**	
Urbanicity							
Suburban					0.65	0.74	
Town					2.70**	2.74**	
Rural					-1.83	-1.66	
Region							
Central					-1.13	-1.04	
Pacific					-2.23*	-2.11†	
Southern					-5.98**	-5.61**	
Western					-7.26**	-7.20**	
					- 1	Continued)	

(Continued)

Table 5. continued

	Biva	Bivariate		racteristics	Full model	
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
OTHER STUDENT BO CHARACTERISTICS	ODY					
Percent of Pell recipients					-0.46**	-0.47**
Percent of women enrolled					0.06*	0.05†
Percent of black and Hispanic students enrolled					0.01	0.01
Constant	55.18**	55.35 **	48.17**	48.28**	64.41**	65.58**
F value	78.89	63.62	285.92	290.58	137.27	136.36
p-value	0.00	0.00	0.00	0.00	0.00	0.00
$R^2$	0.08	0.06	0.58	0.59	0.73	0.72

**Note:** N = 1,082. All coefficients are adjusted by multiple imputations for missing cases in independent variables (m = 20). Inclusive, city, and Northeastern schools are reference categories.

housing on campus (b = 1.62, p < 0.05). Yet, this is not true for Pell students. Turning to table 6, there is no significant relationship between either Greek membership or housing on Pell Grant student completion rates.

In contrast, other factors operate similarly for non-Pell and Pell students. Selective and more selective schools (in comparison to inclusive schools), those with lower acceptance rates, private schools, minority-serving institutions, larger schools, universities located in cities (versus towns), and those with larger endowments are associated with a graduation rate boost for both groups. Pell and non-Pell graduation rates decrease as the Pell net price rises—suggesting that everyone benefits from financial support for less privileged students. While both non-Pell and Pell students graduate at lower rates in the South and West (in comparison to the Northeast), non-Pell students also fare worse in the Pacific region, and Pell students in the Central region. Schools with a higher percent of Pell students have lower graduation rates for both groups. More women on campus are linked to increased graduation rates. Once class is accounted for, the percent of black and Hispanic students is not associated with graduation rates.

These findings suggest that a robust Greek system, unlike many other organizational features, may increase the graduation gap between the most and least affluent students on campus. This gap is a function of a graduation benefit that Greek life offers to the most affluent students—but not their low-income peers. Thus, we are able to reject hypothesis 2 (i.e., Greek life will have no effect on graduation gaps) and hypothesis 3 (i.e., Greek life will reduce class disparities).

<sup>†</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01 (two-tailed).

**Table 6. OLS Regression Coefficients for Pell Graduation Rates** 

	Bivariate		Basic char	acteristics	Full model	
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
GREEK LIFE ON CAN	MPUS					
Percent Greek students	0.34**		-0.01		0.01	
Greek housing on campus		6.17**		0.66		-0.60
SELECTIVITY AND O	CONTROL	,				
Carnegie classification						
Selective			12.76**	12.55**	5.53**	5.57**
More selective			33.17**	32.72**	16.18**	16.34**
Acceptance rate			-0.21**	-0.21**	-0.13**	-0.13**
Private school			6.90**	7.12**	8.51**	8.45**
OTHER ORGANIZA' CHARACTERISTICS	TIONAL					
Net cost for low- income students					-0.33**	-0.33**
Minority-serving designation					4.44*	4.41*
Percent of graduates with STEM majors					0.03	0.03
Endowment amount per student					1.68**	1.71**
Size					0.23**	0.24**
Urbanicity						
Suburban					-0.41	-0.44
Town					1.76*	1.85*
Rural					-0.35	-0.36
Region						
Central					-5.21**	-5.12**
Pacific					-1.26	-1.27
Southern					-8.16**	-8.04**
Western					-9.27**	-9.24**
OTHER STUDENT BOOK CHARACTERISTICS	ODY					
Percent of Pell recipients					-0.45**	-0.45**
					- 1	Continued)

(Continued)

Table 6. continued

	Biva	Bivariate		racteristics	Full model	
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
Percent of women enrolled					0.08*	0.08*
Percent of black and Hispanic students enrolled					0.03	0.03
Constant	49.65**	50.25**	46.39**	46.28**	60.72**	60.86**
F value	47.34	25.46	312.23	306.83	138.57	138.55
p-value	0.00	0.00	0.00	0.00	0.00	0.00
$R^2$	0.05	0.03	0.60	0.60	0.73	0.73

**Note:** N = 1,082. All coefficients are adjusted by multiple imputations for missing cases in independent variables (m = 20). Inclusive, city, and Northeastern schools are reference categories.

In addition, hypothesis 4 is not supported by our analyses, which control for organizational features and include measures that tap into self-selection.

### Contextualizing Greek Life Effects

The general patterns presented above may obscure important differences across campuses. Below, we assess hypothesis 5, examining whether the relationship between Greek life and graduation gaps varies across organizational contexts.

Analyses by minority-serving designation reveal that Greek life at these institutions is not associated with significant class-based graduation gaps. This may be due to the fact that historically black, Latino/a, and multicultural organizations are less class segregated than historically white fraternities and sororities. 13 Predominately non-white Greek organizations typically only have a large presence at minority-serving institutions; elsewhere, they comprise a very small percentage of the overall Greek population (Ray and Rosow 2009).

Our primary focus, however, is on selectivity. Carnegie classification is associated with many other variables in our analyses. As selectivity increases, the acceptance rate decreases and the net cost for low-income students drops, while the percent of graduates with STEM majors and endowment amount rise. At more selective schools, there are also fewer Pell students and a lower percentage of black and Hispanic students. Because selectivity shapes both who attends and the available resources on campus, schools in different categories may be measurably distinct from one another.

Consequently, we take a closer look at patterns within the three Carnegie classification categories—inclusive, selective, and more selective. We conducted a set of analyses including interactions between Greek measures and selectivity

<sup>†</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01 (two-tailed).

categories, replicating the full models for graduation gap and rate analyses presented above. Table 7 presents the relevant coefficients from these analyses, for both Greek membership and property.

Greek membership is associated with class gaps at selective schools—the largest category in the four-year residential sector (comprising 51.7 percent of our sample). If we look only at selective schools, we see a familiar pattern, displayed visually in figure 1. As the percentage of Greek students increases, there is an incline in graduation rates for non-Pell/non-Stafford students, but not for Pell students. The size of the class gap in graduation rates grows with the size of the Greek population. The difference in the graduation gap at a selective school with no Greek members versus one in which 80 percent of undergraduates are Greek members is 8.30 percent. This is a sizable gap—but it occurs only at selective schools. 14

The results for Greek property are consistent for selective schools, although more selective schools also reach marginal significance. In these interactive models, however, the underlying source of the gap is different. None of the coefficients for graduation rates reach significance, but when the positive relationship for affluent students and the negative relationship for less affluent students are combined, they produce a significant class graduation gap at schools with higher selectivity levels. There is no such effect at inclusive schools.

Why would we see the strongest association of Greek life with class-based graduation gaps at selective schools? Selective schools are the most heterogeneous. They include students from a wide range of class backgrounds—from working class to upper class. At selective schools, the presence of a robust Greek system allows affluent students to isolate themselves from less affluent students, resulting in less cross-class contact than would have otherwise occurred.

In contrast, at inclusive schools, students are, on average, less affluent and come from lower-resource communities. Greek life is least common on inclusive campuses, as students may not have the funds to pay annual dues to national organizations. However, when Greek organizations are present on inclusive campuses, chapters are—by default—more likely to include Pell students.

At the other extreme, more selective institutions include schools with wealthy student bodies and low percentages of Pell students. Generous resources, such as endowments that run in the millions per student, help reduce class differences in graduation at some of these schools. Colleges and universities rich in resources can afford to reduce net cost for low-income students and provide better programming and advising. Low-income students on many of these campuses are also selected for their exceptional academic performance, and thus are not subject to the same academic struggles as low-income students on other campuses. Yet—even in this best-case scenario—Greek property on campus is related to class-based graduation gaps.

The analyses presented in table 7 suggest that contextual factors must be in play for Greek life to be associated with class disparities in six-year graduation rates. There must be considerable heterogeneity in the student body, with enough class diversity to motivate affluent students to self-segregate. Housing also plays a crucial role in class segregation. The problematic consequences of Selective schools

Selective schools

More selective schools

On-campus Greek housing Inclusive schools

More selective schools

	Non-Pell/Pell graduation gap		Non-Pell/Non- Stafford graduation rates		Pell graduation rates	
	В	S.E.	В	S.E.	В	S.E.
Percent Greek students						
Inclusive schools	0.07	(0.08)	0.08	(0.08)	0.02	(0.08)

(0.05)\*

(0.04)

(2.16)

(1.09)\*

(1.38)†

0.12

0.05

1.63

1.42

1.98

(0.05)\*\*

(0.04)

(1.99)

(0.98)

(1.23)

0.02

0.00

0.87

-1.03

-0.47

(0.05)

(0.04)

(2.00)

(1.03)

(1.27)

Table 7. Contextual Effects of On-Campus Greek Life by School Selectivity

0.11

0.06

0.75

2.45

2.45

**Note:** N = 1,082. Standard errors are in parentheses. All coefficients are adjusted by multiple imputations for missing cases in independent variables (m = 20). All analyses include other organizational characteristics and other student body characteristics shown in tables 3 to 5 as statistical controls and Carnegie classification (inclusive, selective, and more selective) as main effects.

† p < 0.1; \* p < 0.05; \*\* p < 0.01 (two-tailed).

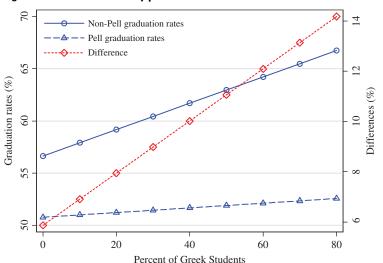


Figure 1. Graduation rates by percent of Greek students in selective schools

Note: Predictions are calculated for all cases in the sample holding control variables at their observed values. The averages of the predicted values across the sample are used to create the plots.

physical, class-based separation in students' residential arrangements may override even the positive impact of higher resources often available to Pell students at more selective schools.

#### Discussion

Higher education scholars often explain social class differences in academic outcomes by focusing on the individual traits and resources that students bring to college. The organizational contexts in which students are embedded have, until recently, received less attention in quantitative scholarship. Scholars also tend to compare students, rather than explaining variation in the degree of educational opportunity provided by schools.

We use unique data to examine how the presence of the Greek system is related to class-based inequalities. Greek chapters tend to isolate affluent students from their less affluent peers on campus (Walker, Martin, and Hussey 2015). Prior research has focused on the individual benefits of Greek membership for those who can join (Astin 1977; Pike 2003; Tinto 1993). In contrast, we take an organizational approach. Our goal is to understand how Greek life on campus is linked to college completion gaps between non-Pell/non-Stafford loan students and Pell Grant recipients at four-year, residential colleges and universities across the United States.

Greek life has the strongest relationship to college completion at selective schools. As Greek membership rises, so does the completion gap between the most and least affluent students—even when accounting for a wide array of controls. Separate analyses of graduation rates for each class group help explain this pattern: Only affluent students see a graduation boost at schools with robust Greek systems. Having a propertied Greek system is also tied to class disparities in graduation at both selective and more selective schools, suggesting that segregated student housing is central to inequities in educational opportunity. Greek life is not associated with completion rates at inclusive schools, where a large proportion of students are low-income, or at minority-serving institutions that are populated by black, Latino/a, and multicultural organizations.

These analyses offer support for hypotheses 1 and 5: Greek life on campus potentially exacerbates class gaps in graduation; however, this occurs only at selective (and, to a lesser extent, more selective) four-year, residential schools. Universities support Greek organizations by allowing them on campus—often in private property—and by providing membership perks. In doing so, schools may help create an environment that systematically benefits affluent students, magnifying class differences in graduation outcomes.

Below, we ask two questions: 1) How does class segregation occur? And 2) Why is segregation associated with graduation disparities? We rely on research on social network formation, K-12 organizational contexts, and residential segregation to understand the sources and consequences of postsecondary segregation. Finally, we address the policy implications of our paper, as well as its larger contributions.

# Organizational Segregation and Class Inequality

Homophily is a core principle of interaction in organizations (McPherson, Smith-Lovin, and Cook 2001). When left to their own devices, people seek out others like themselves. Students in schools are no exception. Youth face strong pressures to self-segregate, as peer conformity becomes important during adolescence and, to a certain degree, young adulthood (Brown, Eicher, and Petrie 1986; Gardner and Steinberg 2005).

Primary and secondary school research suggests that schools can counter tendencies toward homophily or facilitate them. For example, characteristics of schools—such as tracking, academic and social policies, and extracurricular offerings—shape the likelihood of making friends across racial lines, particularly when students are segregated by race and social class (Gamoran 2010; Hallinan and Williams 1989; Milner 2006; Moody 2001; Oakes 2005; Tyson 2011). Within-school segregation is consequential. It often enhances the performance of affluent students, whereas debate surrounds the harm that comes to less affluent students (Gamoran 1992, 2010; Hallinan 1994; Oakes 2005). When paired with similar peers, the advantages of affluent students are concentrated and, with the development of trusting relations, shared (Coleman 1988). Segregation can also make it easier for organizations to channel resources to already advantaged groups (Gamoran 2010; Oakes 2005).

Students attending both Greek-heavy and Greek-light colleges will have an inclination to self-segregate, particularly in the class-diverse environment typical of selective schools; however, universities can support, allow, or block student efforts to form homogeneous networks. As Stearns, Buchmann, and Bonneau (2009) demonstrate of interracial friendships, the Greek system encourages "birds of a feather" to "flock together." Greek chapters, particularly those that are historically white, sharply restrict access by parental class—concentrating affluent students together and isolating them from less privileged peers.

Class segregation in college consolidates valuable resources. Affluent students tend to have college-educated parents, siblings, and mentors, who can offer advice on everything from curricular programming to how to party safely (Hamilton 2016). This information flows through social networks, where graduation is a class-based norm (Walpole 2003). In Greek houses, students may also share material resources, such as test banks filled with prior exams. Finances are pooled to create desired social experiences; Greek members use family money to socialize with other wealthy students (DeSantis 2007; Stuber 2011). Although it may not improve GPAs, socializing ties students to their campuses. Greek students have a strong incentive to stay in school and can draw on resources provided by their social networks to reduce the likelihood of transferring or leaving. Non-Greek affluent students may also benefit via ties to affluent Greek members.

Affluent students' advantages are therefore exaggerated when they form exclusive organizations that consolidate class-based resources. Scholars have identified similar processes in neighborhood residential segregation. As Reardon and Bischoff (2016, p. 14) note, "Segregation of affluence not only concentrates income and wealth in a small number of communities, but also concentrates social capital

and political power. As a result, any self-interested investment the rich make in their own communities has little chance of 'spilling over' to benefit middle- and low-income families." In the case of selective residential universities, affluent students are the only ones to enjoy graduation advantages associated with Greek life.

Pell student graduation rates are not reduced in the presence of Greek organizations on campus. Why is this the case? Other mechanisms of class-based sorting exist in residential universities. Honors, premed, or competitive business and finance tracks may disproportionately include students from affluent families, who have the knowledge and means to opt into such programs (Binder, Davis, and Bloom 2016; Rivera 2015). Similarly, the structure of paid work on campus—whereby poor students serve affluent students' meals and pick up after them in the gym—isolates lower-income students from higher-income peers (Armstrong and Hamilton 2013). Thus, the combination of several sorting mechanisms may produce environments that are detrimental to Pell student graduation.

Notably, there are costs to class segregation that extend beyond college completion. Interacting across difference often enriches the educational experience for all students by fostering a greater sense of community, cultural openness and acceptance, abilities to interact with different social groups, growth in "active thinking processes," overall satisfaction with college, and higher post-degree aspirations (see Milem [2003] for a review). Much of this work focuses on race/ ethnicity and the effects of affirmative action policies; however, the same principles may apply to class diversity.

Some colleges have taken the step of eliminating Greek life on their campuses. However, for most schools, doing so in the current political and economic context may be challenging. Kerr ([1963] 2001) refers to the years after 1990 as a time of "constrained resources." Universities are increasingly reliant on private sources of support, including tuition and donations (Armstrong and Hamilton 2013). Greek organizations attract some of the highest-paying students and are linked to some of the richest and most generous alumni (DeSantis 2007). Even small attempts to rein in Greek life can cause uproar.

Universities might instead work toward reducing inequities in the Greek system. Mandatory programming and required reporting of membership statistics could revamp recruitment and reduce demographic sorting. Schools could also invest in compelling alternatives. Students in Asia and Europe join organizations based on shared interests; social fraternities are rare (DeSantis 2007; Huang and Chang 2004). Alternatives must be afforded sufficient resources and privileges (e.g., space and freedom from policing) in order to compete with Greek life.

Our investigation of Greek life advances a larger intellectual agenda in postsecondary scholarship—the impact of organizational contexts on student success. Understanding stratification processes, such as who is able to benefit from a four-year college degree, requires attending to organizational environments (also see Pascarella and Terenzini [2005]; Ro, Terenzini, and Yin [2013]). These environments, and the degree of opportunity that they offer, are worthy of study -not just the individuals who move through them.

Taking organizational context seriously may help explain significant class differences in graduation rates and post-college earnings (Bailey and Dynarski 2011; Witteveen and Attewell 2017), both of which fluctuate across schools. For instance, Chetty et al. (2017) demonstrate substantial variation in intergenerational mobility across US colleges and universities. Not all colleges have the same mobility track record. Our study offers one possible mechanism behind this variation, but more progress is needed.

Moving forward, higher education scholars must engage more deeply with rich organizational and institutional theoretical traditions (e.g., Baker 2014; DiMaggio and Powell 1991; Meyer 1977). We need to think about the larger political, economic, and social forces shaping colleges and universities, the organizational hierarchies in which they compete, and the intramural structures that differentially shape student experiences within schools. This charge will be difficult, however, without better data. For example, our analyses were possible only due to the recent development of advocacy organizations and consumer-oriented platforms. Data collection efforts also continue to ignore social features of college life that, as our results aptly demonstrate, are more than mere trivialities.

It will take theoretical and empirical efforts to advance higher education scholarship in a way that attends to organizational context. This represents an important shift away from blaming individual and family "deficits" to recognizing the ways that college campuses meet (or fail to meet) the needs of different student populations. The structure of universities matters for students' abilities to succeed—and organizational contexts can be changed.

#### Notes

- The remaining 40 percent of the college-going population does not qualify for the Pell Grant, but cannot afford to forgo Stafford loan support. No data on the graduation rates of these "middle" class students currently exist.
- "Social" Greek fraternities are distinct from "professional" Greek societies, in which 2. membership is based on a shared vocational field, or "honor" societies, which reward students who have achieved academic distinction. Membership in more than one social fraternity or sorority is prohibited (DeSantis 2007).
- Analyses in which Greek life variables are not imputed are consistent with those presented here.
- There are a few exceptions. Data on percent fraternity/sorority are from 2013, and data on Greek housing reflect 2014 conditions. IPEDS only began reporting the net price for low-income students in 2008–2009, and the endowment amount per student is reported by fiscal—not academic—year. Finally, several student characteristics are reported for 2012–2013, typically due to inconsistencies in measurement over time.
- 5. We retained 293 schools by using EdTrust data for non-Pell graduation rates. Supplemental analyses indicate that these cases do not change our findings.
- We use a measure of the percentage gap in graduation rates for ease of presentation; however, results using other specifications (e.g., ratio measures) are consistent with those presented below.
- We used the percent of men in fraternities, the percent of women in sororities, and total numbers of men and women enrolled to construct this measure. Due to missing data on either the percent of fraternity men or sorority women, 18 cases were imputed. Supplementary analyses considering the percent of men in fraternities and the percent of women in sororities separately produced consistent results.

- We rely on the official university reports submitted to the USN. A few universities have social groups that operate like fraternities (e.g., final clubs) or unofficial Greek systems (e.g., "faux" fraternities and sororities). In supplemental analyses, we dropped these schools and results remain consistent.
- In the small number of cases (n < 50) where USN information was unclear or incomplete, we referred to student reports of Greek housing on Niche.com (a consumerbased website).
- 10. In addition, we conducted supplemental analyses using the USN selectivity rankings as an alternative way to capture selectivity. These rankings are based on a number of factors—most prominently SAT/ACT scores, but also high school class standing of the entering class, and the institution's acceptance rate. Although there is a great deal of overlap between the Carnegie and USN measures, the categories are different and some schools are ranked differently between the two. Supplemental analyses using the USN selectivity measure, however, are consistent with the Carnegie selectivity measure.
- 11. In supplemental analyses, we also include a measure for the school "sticker price"; results are consistent with those presented below.
- 12. Supplemental analyses include student service spending and instructional spending. These measures do not have a significant effect on the class graduation gap and are not included in the models below.
- 13. The NLSF asks members of Greek organizations to report on the racial composition of their membership. Those in predominantly non-white organizations are not from higher-SES families than other students.
- 14. To confirm that the relationships displayed in figure 1 are linear, we tested two curvilinear forms (log-liner and quadratic) against the linear form. Results indicate that neither the main effects nor the squared terms are statistically significant in the quadratic models. While the effects of the percent of Greek members are statistically significant in both the linear and log-linear models, the  $R^2$  values are approximately equal. Furthermore, with the exception of no-control models for graduation gap, the linear models consistently show better model fit, as indicated by F-values.

## About the Authors

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