Access Granted? Challenges, Controversies, and Opportunities around College Access in American Higher Education

Ashley B. Clayton and Darris R. Means

Higher education has seen growth in the number of both institutions and students enrolling; additionally, colleges and universities have become more diverse with changing demographics of students (Jones 2013). In the 2014–2015 academic year, there were 4,627 degree-granting postsecondary institutions in the United States; this number has grown from 4,216 in 2004–2005 and 3,688 in 1994–1995 (Snyder, de Brey, and Dillow 2016). Undergraduate fall enrollment at degree-granting institutions increased 17 percent from 14.8 million to 17.3 million between 2004 and 2014. More recently, between 2010 and 2014, undergraduate enrollment declined slightly each year but is projected to increase from 17.3 million to 19.8 million by 2025 (Snyder, de Brey, and Dillow 2016). Although college enrollment has increased overall, the overarching issue of college access is not without some unique challenges and controversies.

Overview of the Current College Access Problem

Overall postsecondary enrollment rates are on the rise; however, inequities in enrollment based on race and ethnicity, income, and other demographic characteristics persist (Ma, Pender, and Welch 2016; Perna and Kurban 2013). Three main student populations who are still underserved in higher education are students of color, low-income students, and first-generation students (Bragg 2013). In 2014, the college enrollment rate of White 18-24 year olds was 42 percent compared to 33 percent and 35 percent for Black and Hispanic populations, respectively (Snyder, de Brey, and Dillow 2016). These enrollment gaps in race/ethnicity have narrowed over time, but there still remains a large enrollment gap based on family income (Ma, Pender, and Welch 2016). Low-income students have experienced a 7 percentage point enrollment increase from 2005 to 2015 but still enroll in college at much lower rates compared to their more affluent peers (Ma, Pender, and Welch 2016). Students who have no history of college in their families are less likely to apply and enroll in college compared to non-first-generation college students (Choy 2011; Toutkoushian, Stollberg, and Slaton 2018; Ward, Siegel, and Davenport 2012). In addition to these historically underrepresented populations, recent conversations around access have also focused on undocumented students, student veterans, and students with disabilities.

Some may argue that the access challenge of educational attainment has been solved, as there has been a shift in policy conversations to focus on increasing college graduation (Adelman 2007; Ma, Pender, and Welch 2016; Miller et al. 2014; Scott-Clayton and Sacerdote 2016). In the past decade, numerous initiatives, such as Complete College America (2017), have focused on closing educational attainment gaps for traditionally underserved student populations. By directing more attention to degree attainment, conversations about access have started to diminish, sending a message that there is less of an access issue. Some may argue that with an increase in enrollment of underrepresented populations, affirmative action, need-based scholarship programs, and other initiatives, the college access gap has been nearly closed (Engle and Tinto 2008; Miller et al. 2014). Additionally, some people would agree that access is not enough but it is important that students be retained and ultimately earn a degree.

Another controversy around college access is in regard to whose responsibility it is to address the issue. Some may argue that the role of college access falls on the individual student and their family. Others may argue that secondary education should focus on outcomes beyond high school graduation, but college enrollment of high school graduates is not currently built into the K-12 accountability system (McDonough 2005). Institutions of higher education are naturally main players in the college access conversation; however, colleges have to find the balance between three competing enrollment

management objectives: college access, selectivity, and revenue (Cheslock and Kroc 2012). The college access objective can plausibly be less of a priority if an institution is more focused on admitting students with strong academic credentials or can contribute large amounts of tuition and fees. Although it is not clear if college access is more of a secondary or postsecondary problem to solve, both the federal government and nonprofit organizations have stepped in with initiatives to address college access. The federal government has provided grant funding for several precollege programs, such as TRIO programs, Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP), and the College Access Challenge Grant Program (U.S. Department of Education 2017b). Additionally, nonprofit organizations, such as the National College Advising Corps, have developed initiatives to increase college preparation and enrollment.

College access for many underrepresented groups has improved and overall college enrollment is on the rise. With the increased focus on college retention and completion, it is imperative not to forget college access. This chapter will give an overview of the many controversies and questions surrounding college access in the United States, including whose responsibility it is to increase (or improve) access, which populations still need access, and what institutions and other organizations are doing to support access.

Theoretical Foundations of College Access and Choice

In order to better understand college access, it is important to examine how students make choices about going to college. Numerous studies have examined students' college choice process and identified factors most influential in the process. There have been three major literature reviews on the topic of college access and choice: Hossler, Braxton, and Coopersmith (1989), Paulsen (1990), and most recently Perna (2006). All three of these reviews have consistently highlighted the importance of both economic and sociological theories in guiding research on college access and choice.

In the most current review of the literature, Perna (2006) identified four categories of predictors that determine college enrollment and choice: financial resources, academic preparation and achievement, support from significant others, and knowledge and information about college and financial aid (Perna and Kurban 2013). After synthesizing past research on college access and choice, Perna (2006) developed a conceptual model of college choice that explains how many factors influence a student's decision to attend college. Specifically, the model explains that enrollment decisions are nested within four contextual layers: (1) student and family context; (2) school and community context; (3) higher education context; and (4) the social, economic, and policy context (Perna 2006). Although the student and family are at the innermost layer, the comprehensive model explains that many other

factors influence college enrollment decisions. Each layer of the model also raises questions and controversies around who is responsible for college access.

Student and Family Context

The economic theory of human capital is at the core of Perna's conceptual model (2006), which assumes that students' college choice behaviors are based on a comparison of the expected benefits to the expected costs (Becker 1993). Paulsen (2001) explains that human capital theory suggests that a student's decision to invest in a college education will be worthwhile if the expected benefits (e.g., employment, future salary) outweigh the costs (e.g., foregone earnings, tuition, fees). Perna's model (2006) also proposes that students make postsecondary decisions based on their supply of resources (family income and financial aid) and demand for education (academic preparation and academic achievement). For example, low-income students are particularly sensitive to tuition prices and other college costs (Heller 1997, 2013), and might not have a sufficient supply of resources to enroll in college.

The innermost layer of the model, the student and family context, is also known as the habitus. An individual's habitus is an internalized system of thoughts, beliefs, and perceptions that are shaped by one's immediate environment and inevitably influence college aspirations (Bourdieu and Passeron 1977; McDonough 1997; Perna 2006). In the context of college choice, social capital refers to an individual's access to social networks that provide information and assistance to attend college (Coleman 1988; Deil-Amen and Turley 2007; Perna 2006). Students from more affluent and educated backgrounds will have more access to social networks that will further facilitate optimal college-going decisions.

Some might argue that families are ultimately responsible for the postsecondary outcomes of their children. It is plausible that those who view education as a private good that provides students with a competitive advantage and other personal benefits (Labaree 1997) might propose that it is not the responsibility of higher education institutions or the federal government to supply resources and funding. The counterargument is that higher education is a public good and that society as a whole benefits from more individuals going to college (Baum, Ma, Payea 2013; Pusser 2006).

School and Community Context

Layer two of Perna's model (2006), school and community context, is based on McDonough's concept (1997) of "organizational habitus," which acknowledges ways that schools and communities help or hinder the college

choice process. School personnel, such as school counselors and teachers, can be influential in providing resources and helping students with college applications (Hossler, Braxton, and Coopersmith 1989; McDonough 2005; Stanton-Salazar 1997). Conversely, some research suggests that the school environments may inhibit college access for low-income and minority students (Stanton-Salazar 1997).

Schools and communities can vary greatly depending on geographic location, resources, and other economic factors. One example of variation is in college counseling resources at the school level (Perna et al. 2008). Private schools often have a designated staff member whose primary responsibility is assisting students with college applications and selection, but far fewer public high schools have this additional resource. College counseling often falls on the shoulders of school counselors who lack both formal training and time to assist students (McDonough 2005). Additionally, college counseling is more readily accessible for students in advanced college preparatory tracks (McDonough 2005; Venezia and Kirst 2005) and of higher socioeconomic status (Linnehan, Weer, and Stonely 2011).

Higher Education Context

The third layer of the model, the higher education context, explains post-secondary institutions' roles in college access and choice (Perna 2006). Different types of colleges indirectly and directly market to specific student populations. Some students may have a limited viewpoint on college options and may only be aware of institutions within a close proximity to their home (Means et al. 2016) or have highly publicized athletic teams (Pope and Pope 2014; Toma and Cross 1998). However, higher education institutions also recruit specific student populations through more intentional marketing strategies (Perna 2006). Students from certain demographic backgrounds might also be drawn to some institutions more than others based on their personal identity and preferences (Nora 2004). For example, due to both marketing efforts and the role of personal preferences, low-income students have higher rates of enrollment in community colleges and for-profit institutions (Baum, Ma, and Payea 2013; Heller 2013).

Institutions of higher education also decide which students they allow to enroll based on their admissions standards. Deciding which students to admit is a complex enrollment management problem. Colleges "wish to enroll underrepresented and economically disadvantaged students, well-prepared students with high test scores and grades, and students who can contribute large amounts of tuition and fees—all at the same time" (Cheslock and Kroc 2012, 221). Although access, academic quality, and revenue are all logical goals, it is nearly impossible to advance all three enrollment objectives simultaneously (Cheslock and Kroc 2012; Humphrey 2006; Schulz 2008). One college might prioritize revenue generation over access for

low-income students, especially if that college is heavily tuition-driven. Another might prioritize improving their academic profile over offering spots to students who attended underresourced high schools without test preparation, Advanced Placement, or International Baccalaureate programs. With competing enrollment objectives, some colleges have less incentive to prioritize access.

Social, Economic, and Policy Context

The outermost layer of Perna's model (2006) recognizes the role of the larger social, economic, and policy landscape in college choice. The social context includes demographic characteristics of the population, such as bachelor's degree attainment and poverty levels. The economic context includes labor market characteristics, such as unemployment rates and availability of jobs. Last, the broader public policy context, such as state- and federally funded financial aid programs and K-12 policies, also has an influence on college choice behaviors (Perna and Kurban 2013).

One recent policy shift that has received much attention is the development of state-funded merit-based financial aid programs (Heller 2003). In 1993, Georgia introduced a merit-based scholarship program, Helping Outstanding Pupils Educationally (HOPE), which the state funded with lottery revenues. Taking advantage of an exogenous policy shift, studies found a significant positive effect of the HOPE scholarship program on postsecondary enrollment in Georgia. An early study found that after the implementation of HOPE, postsecondary enrollment rates in Georgia among 18- to 19-year-olds increased from about 30 percent to 37.8 percent (Dynarski 2000). Another more recent study had similar findings, reporting that the HOPE program increased enrollment in Georgia by 5.9 percent, adding 2,889 freshmen per year to Georgia colleges (Cornwell, Mustard, and Sridhar 2006). As a result of Georgia's successful merit-based scholarship program, there has been a growth in state-sponsored merit-aid programs across the country (Hu, Trengove, and Zhang 2012). However, as more states focus on providing financial aid based on merit, there is a concern that need-based aid could get crowded out and have negative consequences for low-income and minority student enrollment (Griffith 2011; Hearn, Jones, and Kurban 2013; Heller 2003). As merit-based programs have outpaced need-based programs, these programs often favor higher income students and White students (Dynarski 2002, 2004; Heller 2003; Ness and Tucker, 2008).

Addressing College Access for Underserved Student Populations

Despite improvements in college enrollment rates (Davis 2010; Jones 2013), research continues to show that pathways to higher education remain inequitable for students, with stratification by race and ethnicity, social class,

family history of college, immigration status, ability, and other dimensions of social identity (Bergerson 2009; Bowen, Chingos, and McPherson 2009; Bragg 2013; Engle and Tinto 2008; Perez 2009; Perna and Kurban 2013). College access discussions often focus on low-income students, first-generation college students, and students of color. Although low-income and first-generation students are more likely to be students of color (Engle and Tinto 2008), it is important to acknowledge these identities do not necessarily overlap (Davis 2010). For example, a student of color could be from a high-income family with a long family history of college or a White student could be a first-generation college student from a working-class family. In this section, we examine two sets of challenges to college access prevalent in these populations: (a) those related to how we frame college access and its barriers, and (b) those related to the model minority myth.

College Access and Capital

Theorists and scholars have often used cultural and social capital to frame the challenges and barriers low-income students, first-generation college students, and students of color face in education (e.g., Bourdieu 1986; Bryan et al. 2011; Strayhorn 2010). Cultural capital can be generally described as "an accumulation of cultural knowledge, skills and abilities possessed and inherited by privileged groups in society" (Yosso 2005, 76), while social capital is related to one's connections and networks, which provide access to actual or potential resources, conferring advantage and promoting social mobility (Bourdieu 1986). From a cultural and social capital perspective, research has documented how low-income students, first-generation college students, and students of color often lack knowledge about preparing for higher education, a type of cultural capital, and networks of college-educated family and friends, a type of social capital, that can be used to access higher education. Given the lack of cultural and social capital in underserved populations, policy makers, researchers, and educators may wonder if they should focus on providing these students access to additional social and cultural capital.

However, Yosso (2005) critiqued how educators used cultural and social capital to focus on the deficits of marginalized student populations, while using White middle-class standards to assert "some communities are culturally wealthy while others are culturally poor" (76). Yosso noted that such "deficit thinking takes the position that minority students and families are at fault for poor academic performance because: (a) students enter school without the normative cultural knowledge and skills; and (b) parents neither value nor support their child's education" (2005, 75). Thus, theories of cultural and social capital fail to recognize the assets and resources that marginalized student populations may use to navigate their pathway to higher education, such as encouragement from family to pursue higher education

and students' resistance in the face of challenges (Harper 2010; Means and Pyne 2016; Pyne and Means 2013; Yosso 2005). In addition, emphasizing individual and familial barriers and challenges may lead educators and policy makers to neglect the broader, structural barriers that contribute to inequitable college enrollment. In particular, they may overlook the historical and current realities related to racism, classism, other forms of oppression, and the intersection of these forms of oppression that leads to educational inequity for low-income students, first-generation college students, and students of color (Pyne and Means 2013; Quaye, Griffin, and Museus 2015; Yosso 2005).

Yosso (2005) proposed an alternative to traditional notions of cultural and social capital to understand how students, specifically students of color, navigate educational settings. Building upon work from other scholars (e.g., Daniel Solórzano and Octavio Villalpando), Yosso proposed the notion of community cultural wealth to acknowledge the "knowledge, skills, abilities and contacts possessed and utilized by Communities of Color to survive and resist macro and micro-forms of oppression" (2005, 77). Yosso also drew on Critical Race Theory to acknowledge systemic, structural, and institutional barriers related to race and racism that may lead to inequity in education. Yosso's model (2005) identifies six forms of capital: aspirational capital ("the ability to maintain hopes and dreams for the future, even in the face of real and perceived barriers"), familial capital (the expansion of the boundaries of family to include extended family and friends, as well as the commitment to the well-being of family), linguistic capital (the recognition and value of "multiple language and communication skills"), social capital (a network of people that provide emotional support), navigational capital ("skills of maneuvering through social institutions"), and resistant capital (the ability to exercise agency to challenge inequality or oppressive messages) (77-80). Researchers using this model to explore college access inequity have found that these forms of capital support the college-going for low-income students, first-generation college students, and students of color (Jayakumar, Vue, and Allen 2013; Means, Hudson, and Tish 2016).

The Model Minority Myth

In the United States, Asian American and Pacific Islander individuals have the highest college enrollment and attainment rates of all racial groups (Lumina Foundation 2016; Snyder, de Brey, Dillow 2016). According to the Lumina Foundation (2016), approximately 60 percent of Asian American and Pacific Islander adults have attained a postsecondary degree. Because of these assumed high levels of achievement, Asian American and Pacific Islander students are often not viewed as underserved, which perpetuates the model minority myth in academic settings (Museus and Kiang 2009).

According to Museus and Kiang (2009), "The model minority stereotype is the notion that Asian Americans achieve universal and unparalleled academic and occupational success" (6).

Researchers have demonstrated that the model minority myth or stereotype masks differences in attainment by ethnicity and socioeconomic status (Museus and Kiang 2009; Museus and Vue 2013). Although Asian Indian, Pakistani, Chinese, Filipino, Korean, and Japanese individuals have a high college attainment rate, Vietnamese, Cambodian, Laotian, and Hmong individuals have a significantly lower college attainment rate (Museus and Kiang 2009). In addition, the model minority myth does not account for socioeconomic differences among Asian American and Pacific Islander students, which leads to disparities for college access (Museus and Vue 2013). For instance, Museus and Vue (2013) found that "SES disparities exist, with higher SES AAPIs (Asian Americans and Pacific Islanders) developing expectations for, applying to, and matriculating in college at higher rates than their lower SES peers" (68). Regardless of the model minority stereotype, researchers have demonstrated that Asian American students experience racial hostility and marginalization (Museus and Park 2015), which shapes pathways to and through higher education.

College Access Programs and Initiatives

Numerous programs and initiatives have been developed and implemented to increase college access for underrepresented student populations. Some initiatives are over 50 years old while others are much newer. In this section, we highlight some relevant examples of college access interventions and their impact.

Precollege Programs

Numerous programs in the United States are available to assist high school students in preparing for college, ranging from large federally funded programs, such as TRIO and GEAR UP, to smaller institutional and state-funded programs (Corwin, Colyar, and Tierney 2005; Swail and Perna 2002). The overarching goals of precollege programs typically focus on improving students' academic preparation and providing support, encouragement, and information that, collectively, increase the likelihood of college enrollment (Cabrera et al. 2006; Corwin, Colyar, and Tierney 2005; Perna 2015; Swail and Perna, 2002). Many programs target students from low-income, first-generation, and other underserved populations.

Some of the largest precollege programs in the nation are federally funded and serve disadvantaged populations. For instance, the U.S. Department of Education created Upward Bound, Talent Search, and Student Support Services in the 1960s as the original "TRIO." There are now eight TRIO programs "targeted to serve and assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to postbaccalaureate programs" (U.S. Department of Education 2017a). In a large-scale randomized control trial of Upward Bound conducted by Mathematica Policy Research (MPR), there were no statistically significant differences in postsecondary enrollment between students in the Upward Bound program and students in the control group (Seftor, Mamum, and Schirm 2009). However, Cahalan and Goodwin (2014) conducted a follow-up analysis and found that students in the Upward Bound program were more likely to enroll in college and complete a college degree.

Information and Personal Assistance

Some studies have found that providing information and assistance during the postsecondary application process can have positive effects. One study focused on the role of personal assistance in helping low- to moderate-income families complete the Free Application for Federal Student Aid (FAFSA) (Bettinger et al. 2012). Low-income individuals receiving tax preparation assistance at H&R Block were randomly assigned to one of three groups: FAFSA information only, information and personal assistance filling out the FAFSA, or a control group. Students in the combined treatment group (information and personal assistance) were not only more likely to complete the FAFSA, but were also 8.1 percentage points more likely to enroll and 8 percentage points more likely to persist in postsecondary education for two years (Bettinger et al. 2012).

A relatively new set of initiatives aimed at encouraging students to apply for college are statewide college application campaigns (American Council on Education 2017). In fall 2005, North Carolina became the first state to pilot this type of initiative in one high school. During North Carolina's annual College Application Week, sites across the state provide application assistance to high school seniors, and dozens of colleges and universities waive their application fees (College Foundation of North Carolina 2017). In 2007 this grew into a statewide program, and since then North Carolina has seen an increase in applications and enrollments among low-income students (Umbach and Clayton 2014). By 2015, all 50 states had adopted similar programs as part of the American College Application Campaign. Each state designs and operates its campaign independently, but they typically schedule them during the school day in the fall of senior year. These campaigns last between a week and a month, and high school seniors receive assistance with applying to college (American Council on Education 2017).

College Advising

Recently, several college advising models have been developed to provide high school students with assistance in the college enrollment process. One of the largest initiatives of this type is the College Advising Corps: a nonprofit organization that places recent college graduates in underserved high schools to serve as full-time college advisers (College Advising Corps 2017a). The program has two main goals: "First, it provides necessary information and support for students who may find it difficult to navigate the complex college admission process. Second, the advisers conduct outreach to underclassmen in an effort to improve the school-wide college-going culture" (Horng et al. 2013, 56). Starting in 2005 with 14 advisers from the University of Virginia serving 16 rural Virginia high schools, the program has now expanded to 14 states with over 500 advisers (College Advising Corps 2017a). The program has conducted a randomized control trial study of its Texas program, and preliminary results suggest that students in high schools with the college adviser are more likely to apply to four-year colleges and enroll in postsecondary education (College Advising Corps 2017b).

A similar advising program is the College Coach Program in Chicago Public Schools. Coaches are not randomly assigned to high schools, although they were "distributed fairly evenly across high schools in terms of socioeconomic composition, racial composition, and academic achievement" (Stephan and Rosenbaum 2013, 204). A study found that, compared to schools without a college coach, students in coached schools completed more applications and enrolled in college at higher rates. Specifically, schools with coaches increased the percentage of students who applied to three or more colleges by 4.7 percentage points, FAFSA completion by 2.6 percentage points, and college enrollment by 1.7 percentage points (Stephan and Rosenbaum 2013).

Some college advising interventions have been successful in examining the causal effects on college access. One pilot study successfully randomized college counseling services to high-achieving, low-income high school students (Avery 2010). Results from this study found that students who received the college counseling treatment submitted more college applications overall and were more likely to enroll in institutions that Barron's ranked as "Most Competitive" (Avery 2010). A more recent study examined the effects of the college advising program, Bottom Line, by capitalizing on a cutoff score that determined admission into the program (Castleman and Goodman 2014). The results from this study found that the Bottom Line advising program "effectively shifts students' enrollment away from two-year or discouraged four-year colleges and toward four-year colleges that the organization believes will be more successful at graduating those students" (Castleman and

Goodman 2014, 10). Specifically, students who received college counseling were 41 percentage points more likely to enroll in one of the colleges that Bottom Line encourages students to attend after high school compared to control group students (Castleman and Goodman 2014).

The Role of Higher Education Institutions in Supporting College Access

Colleges and universities themselves are a critical component of college access and can serve as a mechanism for supporting a student's exposure to higher education by the information they provide, their marketing and recruitment efforts in a community, and their proximity to a high school or community (Perna 2006). As mentioned before, the juxtaposition of institutional type and social identities may influence a student's college choice decisions (Nora 2004). There are three types of institutions that enroll a significant number of low-income students, first-generation college students, and students of color: community colleges, for-profit institutions, and minority-serving institutions (MSIs).

Community Colleges

American community colleges provide technical-based education, transferable general education coursework, dual enrollment opportunities for high school students, and developmental education (Pierce 2017; Pope 2006). Community colleges play a critical role in providing access to low-income students, first-generation college students, and students of color (Bragg 2001; Mullin 2012; Pope 2006). In fact, community colleges "provide access to nearly half of all minority undergraduate students and more than 40% of undergraduate students living in poverty" (Mullin 2012, 4).

Although community colleges play a significant role in providing college access to many underserved student populations (Bragg 2001; Mullin 2012; Pope 2006), researchers have documented low transfer rates from community colleges to bachelor-awarding institutions. For instance, Monaghan and Attewell (2015) found in their study that "only 42 percent of BA-intending students who enter community college and say they hope to transfer actually do transfer to a 4-year institution" (81). The authors found that the number of credit hours completed at a community college could increase the probability of transferring to a bachelor-awarding institution, but the "BA attainment rate for those who transfer after earning a few credits is not statistically significantly different from that of students who completed 60 or more credits at their initial college" (Monaghan and Attewell 2015, 82). However, Monaghan and Attewell (2015) found that "on average transfers are just as likely to graduate with a BA as equivalent students who started at a 4-year

college" (85). Thus, educational leaders and policy makers must continue to develop and implement strategies and policies that best support the pathways to BA attainment for students who begin at a community college. Although there are challenges related to transfer rates and these challenges need to continue to be addressed, community colleges provide a critical point of access to higher education for students of color and low-income students unlike many of their 4-year institutional counterparts (Bragg 2001).

For-Profit Institutions

For-profit institutions have been providing educational access for hundreds of years (Beaver 2009; Wittnebel 2012). There are close to 3,400 for-profit institutions participating in the federal financial aid program (Lederman 2015). For-profit four-year institutions and two-year institutions recently saw a 16 percent and 22 percent decrease in student enrollment, respectively (Lederman 2015). Although for-profit institutions enroll significant proportions of the low-income students and students of color in higher education (Beaver 2009; Deming, Goldin, and Katz 2013; Oseguera and Malagon 2011), these institutions have been the center of educational controversy and criticism (Beaver 2009; Wittnebel 2012).

For-profit institutions have been criticized because of students' low degree attainment rates and concerns related to the financial benefits of attending these institutions (Beaver 2012; Deming, Goldin, and Katz 2013). For-profit institutions have lower bachelor's degree completion rates than do non-selective four-year institutions (Deming, Goldin, and Katz 2013). Additionally, students who enroll at a for-profit institution "are more likely to be unemployed and have lower earnings once they leave school than those in community colleges and other nonselective institutions" (Deming, Goldin, and Katz 2013, 141). In addition, students at for-profit institutions have higher student loan default rates (Beaver 2012; Deming, Goldin, and Katz 2013).

With these challenges, educators, policy makers, and the general public may question the value of for-profit institutions. However, given the number of for-profit institutions (over 3,400), it is important to recognize that for-profit institutions are not all the same (Lederman 2015). Deming, Goldin, and Katz (2013) recognized several benefits of for-profit institutions. First, for-profit institutions tend to be more responsive to the labor market (Deming, Goldin, and Katz 2013). Second, "Students might turn to for-profit colleges because local community colleges are over-crowded or otherwise unable to meet their needs" (Deming, Goldin, and Katz 2013, 147). Finally, students at for-profit institutions are less likely to enroll in remedial courses than students at community colleges; remedial course have been questioned regarding their academic effectiveness and for hindering one's progression to graduation (Complete College America 2011; Deming, Goldin, and Katz 2013).

35

Minority-Serving Institutions

MSIs have a rich and critical history of supporting the educational access and graduation of students of color (Baez, Gasman, and Turner 2008; Harmon 2012). MSIs also serve a significant population of low-income students (Center for MSIs, "A Brief History of MSI" n.d.). Currently, "MSIs enroll over 20 percent of all college students in the United States" (Gasman and Conrad 2013, 1). Although historically Black colleges and universities (HBCUs), tribal colleges and universities (TCUs), Hispanic-serving institutions (HSIs), and Asian American and Native American Pacific Islander—serving institutions are often the focus when discussing MSIs (Baez, Gasman, and Turner 2008; Center for MSIs, "A Brief History of MSI" n.d.; Harmon 2012), MSIs also include other institutions that receive federal funding: Alaska Native—serving institutions, Native American—serving nontribal institutions, Native Hawaiian—serving institutions, and predominantly Black institutions (Center for MSIs, "What Are MSIs" n.d.).

Researchers have discussed how MSIs have lower retention rates than the national average and often have limited financial resources due to inequitable state funding (Baez, Gasman, and Turner 2008; Gasman and Conrad 2013). For example, Jacobs (2015) reported on how HBCUs have dealt with inequitable government funding and a decrease in student enrollment, which contributes to some people's concerns about the long-term survival of these institutions. However, it is important to recognize how inequitable state funding, the lack of attention to MSIs, and the elevation of historically White institutions may be tied to larger systemic issues that have denied, excluded, and marginalized people of color throughout history. In addition, MSIs tend to contribute to students' sense of well-being and have a high success rate with graduating racial minority students in science, technology, engineering, math, and education (Gasman and Conrad 2013). While each MSI has their own rich history, Baez, Gasman, and Turner (2008) argued that the leadership of MSIs should collaborate with each other to "form coalitions that can press state and federal governments for more funding" and expose "a cultural/political phenomenon to all" (4).

Conclusion

College access in the United States is a complex, challenging, and sometimes controversial topic. Although there has been a steady rise in overall enrollment and the enrollment of some underserved populations, gaps remain. As policy conversations continue to shift toward college completion, it is important that access not be forgotten. The progress our nation has made in the realm of college access could be threatened if we redirect too many resources and too much attention from college access to college completion.

It is important that we continue to examine how enrollment is stratified by income, race, socioeconomic status, and other demographic characteristics. It is also critical that we continue to examine which policies and interventions have positive impacts on college access, and for which populations. College access is the foundation and without it, college completion is not an option.

References

- Adelman, Clifford. 2007. "Do We Really Have a College Access Problem?" *Change: The Magazine of Higher Learning* 39(4): 48–51.
- American Council on Education. 2017. "American College Application Campaign." Accessed May 1, 2017. http://www.acenet.edu/news-room/Pages/American-College-Application-Campaign.aspx
- Avery, Christopher. 2010. "The Effects of College Counseling on High-Achieving, Low-Income Students." No. w16359. National Bureau of Economic Research Publications. Accessed May 1, 2017. http://www.nber.org/papers/w16359
- Baez, Benjamin, Marybeth Gasman, and Caroline Sotello Viernes Turner. 2008. "On Minority-Serving Institutions." In *Understanding Minority-Serving Institutions*, edited by Benjamin Beez, Marybeth Gasman, and Caroline Sotello Viernes Turner, 3–17. Albany, NY: State University of New York Press.
- Baum, Sandy, Jennifer Ma, and Kathleen Payea. 2013. Education Pays, 2013: The Benefits of Higher Education for Individuals and Society. Trends in Higher Education Series. New York: College Board Advocacy & Policy Center.
- Beaver, William. 2009. "For-Profit Higher Education: A Social and Historical Analysis." *Sociological Viewpoints* 25:53–73.
- Beaver, William. 2012. "Fraud in For-Profit Higher Education." *Society* 49(3): 274–278.
- Becker, Gary. 1993. Human Capital: A Theoretical and Empirical Approach with Special References to Education. Chicago: University of Chicago Press.
- Bergerson, Amy A. 2009. "Special Issue: College Choice and Access to College: Moving Policy, Research, and Practice to the 21st Century." *ASHE Higher Education Report* 35(4): 1–141.
- Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block FAFSA Experiment." *The Quarterly Journal of Economics* 127(3): 1205–1242.
- Bourdieu, Pierre. 1986. "The Forms of Capital." In *Handbook of Theory and Research for the Sociology of Education*, edited by John G. Richardson, 15–29. Westport, CT: Greenwood.

Bourdieu, Pierre, and Jean-Claude Passeron. 1977. *Reproduction in Society, Education and Culture*. Beverly Hills, CA: Sage Publications.

- Bowen, William G., Matthew M. Chingos, and Michael S. McPherson. 2009. Crossing the Finish Line: Completing College at America's Public Universities. Princeton, NJ: Princeton University Press.
- Bragg, Debra D. 2001. "Community College Access, Mission, and Outcomes: Considering Intriguing Intersections and Challenges." *Peabody Journal of Education* 76(1): 93–116.
- Bragg, Debra D. 2013. "Pathways to College for Underserved and Nontraditional Students." In *The State of College Access and Completion: Improving College Success for Students from Underrepresented Groups*, edited by Laura W. Perna and Anthony Jones, 34–56. London: Routledge.
- Bryan, Julia, Cheryl Moore-Thomas, Norma L. Day-Vines, and Cheryl Holcomb-McCoy. 2011. "School Counselors as Social Capital: The Effects of High School College Counseling on College Application Rates." *Journal of Counseling & Development* 89(2): 190–199.
- Cabrera, Alberto F., Regina Deil-Amen, Radhika Prabhu, Patrick T. Terenzini, Chul Lee, and Robert E. Franklin Jr. 2006. "Increasing the College Preparedness of At-Risk Students." *Journal of Latinos and Education* 5(2): 79–97.
- Cahalan, Margaret, and David Goodwin. 2014. Setting the Record Straight:

 Strong Positive Impacts Found from the National Evaluation of Upward
 Bound. Re-Analysis Documents Significant Positive Impacts Masked by Errors
 in Flawed Contractor Reports. Washington, DC: Pell Institute for the
 Study of Opportunity in Higher Education. Accessed May 1, 2017. http://
 www.pellinstitute.org/publications-Setting_the_Record_Straight
 June 2014.shtml
- Castleman, Benjamin, and Joshua Goodman. 2014. "Intensive College Counseling and the College Enrollment Choices of Low Income Students." Accessed May 1, 2017. http://curry.virginia.edu/uploads/resourceLibrary/30_College_Counseling_and_Enrollment_Choices.pdf
- Center for Minority Serving Institutions (MSIs). n.d. "A Brief History of MSI." Accessed May 1, 2017. http://www2.gse.upenn.edu/cmsi/content/brief -history-msi
- Center for Minority Serving Institutions (MSIs). n.d. "What Are MSIs?" Accessed May 1, 2017. http://www2.gse.upenn.edu/cmsi/content/what-are-msis
- Cheslock, J. J., and Rick Kroc. 2012. "Managing College Enrollments." In *The Handbook for Institutional Researchers*, edited by Richard D. Howard, Gerald W. McLaughlin, and William E. Knight, 221–236. San Francisco, CA: Jossey-Bass.
- Choy, Susan. 2011. "Students Whose Parents Did Not Go to College: Postsecondary Access, Persistence, and Attainment. Findings from the Condition of Education, 2001." *The Condition of Education*, 2001. Accessed May 1, 2017. https://nces.ed.gov/pubs2001/2001072_Essay.pdf

- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94:S95–S120.
- College Advising Corps. 2017a. "Mission and History." Accessed May 1, 2017. http://advisingcorps.org/our-work/mission-history/
- College Advising Corps. 2017b. "Our Results." Accessed May 1, 2017. http://advisingcorps.org/our-impact/our-results/
- College Foundation of North Carolina. 2017. "North Carolina College Application Week." Accessed May 1, 2017. https://wwwl.cfnc.org/College_Application _Week/College_Application_Week.aspx
- Complete College America. "About Complete College America." 2017. Accessed May 1, 2017. http://completecollege.org/about-cca/
- Complete College America. "Time Is the Enemy." 2011. Accessed May 1, 2017. http://completecollege.org/docs/Time_Is_the_Enemy.pdf
- Cornwell, Christopher, David B. Mustard, and Deepa J. Sridhar. 2006. "The Enrollment Effects of Merit-Based Financial Aid: Evidence from Georgia's HOPE program." *Journal of Labor Economics* 24(4): 761–786.
- Corwin, Zoe B., Julia E. Colyar, and William G. Tierney. 2005. "Introduction. Engaging Research and Practice: Extracurricular and Curricular Influences on College Access." In *Preparing for College: Nine Elements of Effective Outreach*, edited by William Tierney, Zoe Corwin, and Julia E. Colyar, 1–9. Albany: State University of New York Press.
- Davis, Jeff. 2010. The First-Generation Student Experience: Implications for Campus Practice, and Strategies for Improving Persistence and Success. Sterling, VA: Stylus.
- Deil-Amen, Regina, and Ruth Lopez Turley. 2007. "A Review of the Transition to College Literature in Sociology." *Teachers College Record* 109(10): 2324–2366.
- Deming, David, Claudia Goldin, and Lawrence Katz. 2013. "For-Profit Colleges." *The Future of Children* 23(1): 137–163.
- Dynarski, Susan. 2000. "Hope for Whom? Financial Aid for the Middle Class and Its Impact on College Attendance." *National Tax Journal* 53(3): 629–661.
- Dynarski, Susan. 2002. "Race, Income, and the Impact of Merit Aid." Who Should We Help? The Negative Social Consequences of Merit Scholarships. Paper presented at Harvard University entitled "State Merit Aid Programs: College Access and Equity." Accessed May 1, 2017. https://eric.ed.gov/?id=ED468845
- Dynarski, Susan. 2004. "The New Merit Aid." In *College Choices: The Economics of Where to Go, When to Go, and How to Pay for It*, edited by Carolina M. Hoxby, 63–100. Chicago: University of Chicago Press.
- Engle, Jennifer, and Vincent Tinto. 2008. Moving Beyond Access: College Success for Low-Income, First-Generation Students. Washington, DC: Pell Institute for the Study of Opportunity in Higher Education. Accessed May 1, 2017. http://www.pellinstitute.org/publications-Moving_Beyond _Access_2008.shtml

Gasman, Marybeth, and Clifton F. Conrad. 2013. "Minority Serving Institutions: Educating All Students." Penn Center for Minority Serving Institutions. Philadelphia: University of Pennsylvania.

- Griffith, Amanda L. 2011. "Keeping Up with the Joneses: Institutional Changes Following the Adoption of a Merit Aid Policy." *Economics of Education Review* 30(5): 1022–1033.
- Harmon, Noel. 2012. The Role of Minority-Serving Institutions in National College Completion Goals. Washington, DC: Institute for Higher Education Policy.
- Harper, Shaun R. 2010. "An Anti-Deficit Achievement Framework for Research on Students of Color in STEM." New Directions for Institutional Research 148:63–74.
- Hearn, James C., Anthony P. Jones, and Elizabeth R. Kurban. 2013. "Access, Persistence, and Completion in the State Context." In *The State of College Access and Completion: Improving College Success for Students from Underrepresented Groups*, edited by Laura W. Perna and Anthony Jones, 166–189. London: Routledge.
- Heller, Donald E. 1997. "Student Price Response in Higher Education: An Update to Leslie and Brinkman." *The Journal of Higher Education* 68(6): 624–659.
- Heller, Donald E. 2003. "The Policy Shift in State Financial Aid Programs." In *Higher Education: Handbook of Theory and Research*, edited by Michael B. Paulsen, 221–261. New York: Springer.
- Heller, Donald E. 2013. "The Role of Finances in Postsecondary Access and Success." In *The State of College Access and Completion: Improving College Success for Students from Underrepresented Groups*, edited by Laura W. Perna and Anthony Jones, 96–114. London: Routledge.
- Horng, Eileen L., Brent J. Evans, Jesse D. Foster, Hoori S. Kalamkarian, Nicole F. Hurd, and Eric P. Bettinger. 2013. "Lessons Learned from a Data-Driven College Access Program: The National College Advising Corps." New Directions for Youth Development 140:55–75.
- Hossler, Don, John Braxton, and Georgia Coopersmith. 1989. "Understanding Student College Choice." In *Higher Education: Handbook of Theory and Research 5*, edited by J. C. Smart, 231–288. New York: Agathon.
- Hu, Shouping, Matthew Trengove, and Liang Zhang. 2012. "Toward a Greater Understanding of the Effects of State Merit Aid Programs: Examining Existing Evidence and Exploring Future Research Direction." In *Higher Education: Handbook of Theory and Research* 27, edited by J.C. Smart, 291–334. Netherlands: Springer.
- Humphrey, Keith B. 2006. "At the Crossroads of Access and Financial Stability: The Push and Pull on the Enrollment Manager." *College and University* 82(1): 11–16.
- Jacobs, Robert. 2015. "There's an Unprecedented Crisis Facing America's Historically Black Colleges." *Business Insider*. Accessed May 1, 2017. http://www.businessinsider.com/hbcus-may-be-more-in-danger-of-closing -than-other-schools-2015-3

- Jayakumar, Uma, Rican Vue, and Walter Allen. 2013. "Pathways to College for Young Black Scholars: A Community Cultural Wealth Perspective." *Harvard Educational Review* 83(4): 551–579.
- Jones, Anthony P. 2013. "Introduction: Improving Postsecondary Access, Persistence, and Completion in the United States: Setting the Stage." In *The State of College Access and Completion: Improving College Success for Students from Underrepresented Groups*, edited by Laura W. Perna and Anthony Jones, 1–9. London: Routledge.
- Labaree, David F. 1997. "Public Goods, Private Goods: The American Struggle over Educational Goals." *American Educational Research Journal* 34(1): 39–81.
- Lederman, Doug. 2015. "The Shrinking Sector." *Inside Higher Ed.* Accessed May 1, 2017. https://www.insidehighered.com/news/2015/07/24/number-profit-colleges-declines-enrollments-wither
- Linnehan, Frank, Christy H. Weer, and Paul Stonely. 2011. "High School Guidance Counselor Recommendations: The Role of Student Race, Socioeconomic Status, and Academic Performance." *Journal of Applied Social Psychology* 41(3): 536–558.
- Lumina Foundation. 2016. "A Stronger Nation." Accessed May 1, 2017. http://strongernation.luminafoundation.org/report/2016/
- Ma, Jennifer, Matea Pender, and Meredith Welch. 2016. "Education Pays 2016." *The College Board*. Accessed May 1, 2017. https://trends.collegeboard.org/sites/default/files/education-pays-2016-full-report.pdf
- McDonough, Patricia M. 1997. Choosing Colleges: How Social Class and Schools Structure Opportunity. Albany, NY: State University of New York Press.
- McDonough, Patricia M. 2005. "Counseling Matters: Knowledge, Assistance, and Organizational Commitment in College Preparation." In *Preparing for College: Nine Elements of Effective Outreach*, edited by William G. Tierney, Julia E. Colyar, and Zoë B. Corwin, 69–87. Albany, NY: State University of New York Press.
- Means, Darris R., Ashley B. Clayton, Johnathan G. Conzelmann, Patti Baynes, and Paul D. Umbach. 2016. "Bounded Aspirations: Rural, African American High School Students and College Access." *The Review of Higher Education* 39(4): 543–569.
- Means, Darris R., Tara D. Hudson, and Elizabeth Tish. 2016. "A Snapshot of College Access and Inequity: Photovoice and the Pathways to Higher Education for Underserved Youth." Paper presentation, Association for the Study of Higher Education, Columbus, Ohio, November 12.
- Means, Darris R., and Kimberly B. Pyne. 2016. "After Access: Underrepresented Students' Postmatriculation Perceptions of College Access Capital." *Journal of College Student Retention: Research, Theory & Practice* 17(4): 390–412.
- Miller, Abby, Katherine Valle, Jennifer Engle, and Michelle Cooper. 2014. "Access to Attainment: An Access Agenda for 21st Century College Students." Institute for Higher Education Policy. Accessed May 1, 2017. http://www

- .ihep.org/sites/default/files/uploads/docs/pubs/ihep_access-attainment _report_layout_rd5_web.pdf
- Monaghan, David B., and Paul Attewell. 2015. "The Community College Route to the Bachelor's Degree." *Educational Evaluation and Policy Analysis* 37(1): 70–91.
- Mullin, Christopher M. 2012. "Why Access Matters: The Community College Student Body." *AACC Policy Brief.* Accessed May 1, 2017. http://www.aacc.nche.edu/Publications/Briefs/Pages/pb02062012.aspx
- Museus, Samuel D., and Peter N. Kiang. 2009. "Deconstructing the Model Minority Myth and How It Contributes to the Invisible Minority Reality in Higher Education Research." New Directions for Institutional Research 142:5–15.
- Museus, Samuel D., and Julie J. Park. 2015. "The Continuing Significance of Racism in the Lives of Asian American College Students." *Journal of College Student Development* 56(6): 551–569.
- Museus, Samuel D., and Rican Vue. 2013. "Socioeconomic Status and Asian American and Pacific Islander Students' Transition to College: A Structural Equation Modeling Analysis." *The Review of Higher Education* 37(1): 45–76.
- Ness, Erik C., and Richard Tucker. 2008. "Eligibility Effects on College Access: Under-represented Student Perceptions of Tennessee's Merit Aid Program." *Research in Higher Education* 49(7): 569–588.
- Nora, Amaury. 2004. "The Role of Habitus and Cultural Capital in Choosing a College, Transitioning from High School to Higher Education, and Persisting in College among Minority and Nonminority Students." *Journal of Hispanic Higher Education* 3(2): 180–208.
- Oseguera, Leticia, and Maria C. Malagon. 2011. "For-profit Colleges and Universities and the Latina/o Students Who Enroll in Them." *Journal of Hispanic Higher Education* 10(1): 66–91.
- Paulsen, Michael B. 1990. College Choice: Understanding Student Enrollment Behavior. ASHE-ERIC Higher Education Report No. 6. ASHE-ERIC Higher Education Reports, The George Washington University, One Dupont Circle, Suite 630, Dept. RC, Washington, D.C. 20036-1183.
- Paulsen, Michael B. 2001. "The Economics of Human Capital and Investment in Higher Education." In *The Finance of Higher Education: Theory, Research, Policy, and Practice*, edited by Michael B. Paulsen and John C. Smart, 55–94. New York: Agathon Press.
- Perez, William. 2009. We Are Americans: Undocumented Students Pursuing the American Dream. Sterling, VA: Stylus.
- Perna, Laura W. 2006. "Studying College Access and Choice: A Proposed Conceptual Model." In *Handbook of Theory and Research*, edited by Michael B. Paulsen, 99–157. New York: Springer.
- Perna, Laura W. 2015. "Improving College Access and Completion for Low-Income and First-Generation Students: The Role of College Access and Success Programs." Accessed May 1, 2017. http://repository.upenn.edu /gse_pubs/301

- Perna, Laura W., and Elizabeth R. Kurban. 2013. "Improving College Access and Choice." In *The State of College Access and Completion: Improving College Success for Students from Underrepresented Groups*, edited by Laura W. Perna and Anthony Jones, 10–33. London: Routledge.
- Perna, Laura W., Heather T. Rowan-Kenyon, Scott Loring Thomas, Angela Bell, Robert Anderson, and Chunyan Li. 2008. "The Role of College Counseling in Shaping College Opportunity: Variations across High Schools." *The Review of Higher Education* 31(2): 131–159.
- Pierce, Dennis. 2017. "The Rise of Dual Enrollment." *Community College Journal* 87(5): 16-24.
- Pope, Myron L. 2006. "Meeting the Challenges to African American Men at Community Colleges." In *African American Men in College*, edited by Michael J. Cuyjet, 210–236. San Francisco: Jossey-Bass.
- Pope, Devin G., and Jaren C. Pope. 2014. "Understanding College Application Decisions: Why College Sports Success Matters." *Journal of Sports Economics* 15(2): 107–131.
- Pusser, Brian. 2006. "Reconsidering Higher Education and the Public Good." In *Governance and the Public Good*, edited by William G. Tierney, 11–28. Albany, NY: State University of New York Press.
- Pyne, Kimberly B., and Darris R. Means. 2013. "Underrepresented and In/visible: A Hispanic First-Generation Student's Narratives of College." *Journal of Diversity in Higher Education* 6(3): 186–198.
- Quaye, Stephen John, Kimberly A. Griffin, and Samuel D. Museus. 2015. "Engaging Students of Color." In *Student Engagement in Higher Education: Theoretical Perspectives and Practical Approaches for Diverse Populations*, edited by Shaun R. Harper and Stephen John Quaye, 15–36. New York: Routledge.
- Schulz, Scott Andrew. 2008. "Mastering the Art of Balance: An Analysis of How Private Master's Institutions Pursue Institutional Quality, Access, and Financial Stability through Their Enrollment Practices." *Enrollment Management Journal* 2(1): 65–100.
- Scott-Clayton, Judith, and Bruce Sacerdote. 2016. "Access to Higher Education: Introduction to the Special Issue." *Economics of Education Review* 51:1–3.
- Seftor, Neil S., Arif Mamun, and Allen Schirm. 2009. "The Impacts of Regular Upward Bound on Postsecondary Outcomes 7–9 Years after Scheduled High School Graduation." Mathematica Policy Research Report. Washington, DC: U.S. Department of Education, Policy and Program Studies Service. Accessed May 1, 2017. https://www.mathematica-mpr.com/our-publications-and-findings/publications/the-impacts-of-regular-upward-bound-on-postsecondary-outcomes-79-years-after-scheduled-high-school-graduation
- Snyder, Thomas D., Cristobal de Brey, and Sally A. Dillow. 2016. "Digest of Education Statistics 2015, NCES 2016-014." National Center for Education Statistics. Accessed May 1, 2017. https://nces.ed.gov/pubs2016/2016014.pdf

Stanton-Salazar, Ricardo. 1997. "A Social Capital Framework for Understanding the Socialization of Racial Minority Children and Youths." *Harvard Educational Review* 67(1): 1–41.

- Stephan, Jennifer L., and James E. Rosenbaum. 2013. "Can High Schools Reduce College Enrollment Gaps with a New Counseling Model?" *Educational Evaluation and Policy Analysis* 35(2): 200–219.
- Strayhorn, Terrell L. 2010. "When Race and Gender Collide: Social and Cultural Capital's Influence on the Academic Achievement of African American and Latino Males." *The Review of Higher Education* 33(3): 307–332.
- Swail, Watson Scott, and Laura W. Perna. 2002. "Pre-college Outreach Programs." In *Increasing Access to College: Extending Possibilities for All Students*, edited by W. G. Tierney and L. S. Hagedorn, 15–34. Albany: State University of New York Press.
- Toma, J. Douglas, and Michael E. Cross. 1998. "Intercollegiate Athletics and Student College Choice: Exploring the Impact of Championship Seasons on Undergraduate Applications." *Research in Higher Education* 39(6): 633–661.
- Toutkoushian, Robert K., Robert S. Stollberg, and Kelly A. Slaton. 2018 "Talking 'Bout My Generation." *Teachers College Record* 120(4).
- Umbach, Paul D., and Ashley B. Clayton. 2014. "Making It Free and Easy: Exploring the Effects of North Carolina College Application Week on College Access." Paper presented at the Annual Conference of the Association for the Study of Higher Education. Accessed May 1, 2017. http://paul-umbach.com/research/
- U.S. Department of Education. 2017a. "Federal TRIO Programs—Home Page." Accessed May 1, 2017. https://www2.ed.gov/about/offices/list/ope/trio/index.html
- U.S. Department of Education. 2017b. "Student Service Home Page." Accessed May 1, 2017. https://www2.ed.gov/about/offices/list/ope/student-service.html#programs
- Venezia, Andrea, and Michael W. Kirst. 2005. "Inequitable Opportunities: How Current Education Systems and Policies Undermine the Chances for Student Persistence and Success in College." Educational Policy 19(2): 283–307.
- Ward, Lee, Michael J. Siegel, and Zebulun Davenport. 2012. First-generation college students: Understanding and improving the experience from recruitment to commencement. San Francisco: John Wiley & Sons.
- Wittnebel, Leo. 2012. "Predator or Proprietor? Challengers to the Liberal Education Throne." *The Journal of Continuing Higher Education* 60(2): 58–65.
- Yosso, Tara J. 2005. "Whose Culture Has Capital? A Critical Race Theory Discussion of Community Cultural Wealth." *Race Ethnicity and Education* 8(1): 69–91.