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Higher Education Graduation Rates: Problems, Solutions, and History

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Problems, Solutions, and History

Honors 401 Thesis

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Abstract

This thesis explores how higher education graduation rates and student matriculation have affected stakeholders such as donors, students, taxpayers, and both government and non-government organization as well as the overall education rate in America. The ongoing implication of higher education graduation barriers is critical and impacting students across the United States. This thesis examines multiple higher education graduation disparities, including socio-economic status, academic preparation, and students' sense of belong. Additionally, this thesis reflects on how specific predisposed risk factors, educational history, and admissions processes affect the overall student matriculation through end-phase graduation. Throughout history, higher education has used academic undermatching, defined as students' ability to attend colleges that are less academically selective than those, for which they are academically prepared, and affirmative action or better known as the procedures to try to eliminate discrimination. These actions are unjust and lead to declining graduation rates in the United States. The history behind declining graduation rates includes influence from higher education learning commissions, institutional leadership, and stakeholders, resulting in lack of student success and inadequate understanding. Educational outcomes in the United States have been negatively impacted from the results of declining graduation rates, thus advancing studies to discover the significant 4-year graduation rate gap risk factors and how students' sense of belonging play a role in earning a higher education degree. This thesis also presents the solutions that institutions, government officials, and researchers are working towards and how students themselves are focusing on participating in activities to advance the graduation rate in the United States.

Keywords: higher education, risk factors, disparities, academic undermatching, affirmative actions, graduation rates

Higher Education Graduation Rates:

Problems, Solutions, and History

Background

Pursuing a higher education degree is a dynamic and salient quest that provides an irreplaceable experience to individuals who seek to gain advanced opportunities. While higher education plays a critical role in advancing our society, little is emphasized about the historic issues one faces to persist through graduation at a four-year university. The pursuit of higher education degrees in the United States began in 1639 when Harvard University followed the example of today's most prestigious universities, Oxford and Cambridge (Holly, 2014).

Since 1970, graduation rates have steadily decreased into a deprivation that has left higher educational institutions, supporters, and governance perplexed (Holly, 2014). The opportunity to attend a higher educational institution has now expanded beyond Harvard University, and has diversified into state funded facilities such as public universities. Public universities have the ability to support an array of students and are ever changing to fit modern day education levels. Requirements to attend a higher educational facility are now based on many factors such as high school grades, test scores, and involvements whereas universities used to admit on a recommendation basis or the status of your family in society (Holly, 2014). Today, higher education serves an exceptionally large and diverse base of students that ranges from young adults, returning students, and online learners as well as first-generation students, and much more. Each student in today's society must be afforded the opportunity to persist through graduation despite their individual circumstances in their learning environment (Page & Scott-Clayton, 2016).

Due to the graduation rate crisis, factors including higher education procedures, institutional barriers, and academic preparation must address the systemic hardships that students face in accessing degree completion. There is considerable evidence that higher education students in society are underserved by unfair educational system practices that affect academic preparation and increase graduation rate risk factors. Higher education degree completion as well as persistence directly and indirectly affects all of society along with the success of the United States.

Thesis

Higher education degree completion is supposedly an achievement that is attainable for any individual who seeks to gain advanced opportunities and is able to meet admission standards. However, entry into, and success within, the United States educational system, like many others, is dependent upon predisposed risk factors. Although the American educational systems and collegiate institutions may not intentionally or actively choose to create barriers, admittance and student complexities to feed the graduation rate gap surge. The implication of higher education graduation barriers are profound and impacting students across the nation. The U.S Department of Education and state higher education commissions as well as federal legislators have a critical role to play in assuring equitable access to higher education. How do certain factors such as income issues and academic preparation affect students' ability to graduate from higher educational institutions? How has affirmative actions and undermatching impacted historically underserved students from obtaining a higher education degree? What are the significant 4-year graduation rate gap risk factors for students? How does students' sense of belonging play a role in earning a higher education degree? What other implications, perhaps at the institutional level, exist?

Research Questions

How do certain factors such as income issues and academic preparation affect students'

ability to graduate from higher educational institutions?

Higher education institutions use specific factors such as parental income and academic

success to determine collegiate admittance and subsequent course work. Parental income is just

one factor that universities use to gain financial funding from their state. How are students with

significant income issues, predisposed by parents, affected by higher education? How is

academic preparation used to determine subsequent course work and is it a fair practice?

How has affirmative action and undermatching impacted historically underserved students

from obtaining a higher education degree?

Affirmative action in higher education institutions is intended to provide equitable

opportunities and admissions for historically underserved students in the United States. What are

the results of affirmative action practices? What are the effects of undermatching on students for

collegiate success and development?

What are the significant 4-year graduation rate gap risk factors for students?

The student graduation rate in the United States is impacted by post-secondary risk factors,

which are visible throughout the admissions process and degree work. What are the effects of not

identifying risk factors during the collegiate admissions process? What are the main risk factors

students face through their degree progress?

How does students' sense of belonging play a role in earning a higher education degree?

Students' sense of belonging can be ascertained through simple surveying techniques and

campus resources when used effectively. In the United States, higher education going students'

needs have been identified, but are still in the implementation phase across many campuses. What factors affect students' success rate related to their sense of belonging and matriculation?

What other implications, perhaps at the institutional level, exist?

The implication of collegiate student success within higher education institutes are just as disruptive to university leaders as they are to students. How are higher education leaders impacted by students' success?

Summary.

Higher education institutions and stakeholders, such as donors, students, taxpayers, and both government and non-government organization, in the United State must address the issues and implications that affect students at the collegiate level. These implications may be a lasting impact from aged practices by the institutions themselves or societal influences that eventually disrupt students' success going rate. Many state commissions and collegiate level leaders may be working diligently to overturn these implication, but more wrinkles in the success going rate need to be addressed. The unrivaled issue of graduation rates from higher education institutes and the barriers students are faced with cannot be amplified nor overstated (Carroll & Horn, 1997).

Main Research

The subsequent sections address the various implication across post-secondary education and the influence of stakeholders as well as institutional practices. Higher education institutions each use a variety of factors to promote student persistent, but all ultimately have discrepancies that lead to lack of disparities success and economic mobility in the United States.

How do certain factors such as income issues and academic preparation affect students' ability to graduate from higher educational institutions?

Income Issues

Higher education institutions use parental income and the financial aid status of students as factors to determine anticipated college success and admittance. According to higher educational institutions, the insight from parental income and financial aid can measure as well as gauge a students' potential success in a collegiate environment. Parental income and financial aid are two statistics that can predict student success. Generally, students, who come from a household with income issues, tend to have a higher non-continuous enrollment and longer completion times. According to *Economics of Education Review*, there appears to have been a shift in the family income profiles of students over three cohorts, with students entering in the 1991 cohort more likely to be from families with high incomes than the students who entered in either 1984 or 1986 (DesJardins et al., 2006). Thus, if students have access to higher education, their predisposed financial situation could affect their collegiate success and graduation rate. Students with parental income issues or whom file for financial aid are used as indications of a students' propensity to disengage from the institution, which is a precursor to potential dropout (See Figure 1).

Figure 1. (DesJardins et al., 2006). *The Effects of Interrupted Enrollment on Graduation From College: Racial, Income, and Ability Differences.*

Family income simulations of stopout, return, and graduation

Outcome	Adjusted probability assuming all students are...			Difference in adjusted probabilities		
	High income	Middle income	Low income	High vs. middle	High vs. low	Middle vs. low
An initial stopout	0.66	0.7	0.731	−0.04	−0.071	−0.031
Return given first stopout	0.48	0.473	0.469	0.008	0.012	0.004
Graduation given first return	0.177	0.165	0.162	0.012	0.015	0.003
Second stopout given first return	0.823	0.835	0.838	−0.012	−0.015	−0.003
Return given second stopout	0.264	0.271	0.252	−0.007	0.012	0.019
Graduation given second return	0.19	0.18	0.195	0.01	−0.005	−0.015
Third stopout given second return	0.81	0.82	0.805	−0.01	0.005	0.015
Graduation given no stopouts	0.34	0.3	0.269	0.04	0.071	0.031
Graduation given one stopout	0.056	0.055	0.056	0.002	0.001	−0.001
Graduation given two stopouts	0.013	0.014	0.014	0	−0.001	−0.001
Overall graduation	0.409	0.368	0.339	0.041	0.07	0.029

Beyond disengagement playing a role in declining graduation rates based on parental income and financial aid status, students are also more likely to not have access to campus resources when facing financial challenges. With a higher number of students needing to place an emphasis on having an outside job that pushes students to work extensive hours, low-income students are less likely to participate in the resources available to students such a reading, writing and math tutoring services. According to Carnevale & Smith (2018), "Working too many hours—above the 15-hour threshold per week—can lead to a higher probability of noncompletion and dropping out for low-income students" (p. 8). The Center on Education and the Workforce at Georgetown University found that many students with predisposed income issues face significant barriers in order to reach graduation, even more so to reach graduation without a stopout. Out of the 14 million working learners in the United State, 43% of the total are low-income students (Carnevale & Smith, 2018). Another data point from a 2012 study of low-income working learners found that among the working-learners who average 15 or more hours per week, over half received a C or lower in their collegiate classes (Carnevale & Smith, 2018). A low-income student entering into a collegiate program with little to no financial and academic assistance are predisposed from successfully obtaining an undergraduate degree with few to no barriers. Higher education institutions place a significant amount of weight on this data to predict admittance, success, as well as course-work and without financial support; students with a low-income background face significant challenges. Some higher education institutions, like "need blind" schools do not weigh ability to pay or students' success on the income of the student or students' parent (Carnevale & Smith, 2018). According to The Center on Education and the Workforce at Georgetown University, universities that do not offer financial counseling and student success opportunities, versus institutions that are prepared to work with students facing financially unstable backgrounds, see a

lower graduation rate and more frequent stop-start students (Carnevale & Smith, 2018). The cost of higher education and how it affects low-income students varies from state-to-state and institution. Figure 2 represents the average graduation possibility rate for individuals from all financial backgrounds. Today, students attending a four-year university can expect a 50/50 shot at graduating. With the addition of a low-income background barrier, students' graduation rate swiftly declines (The Quality Crisis at America's Private, Non-Profit Colleges, n.d.)
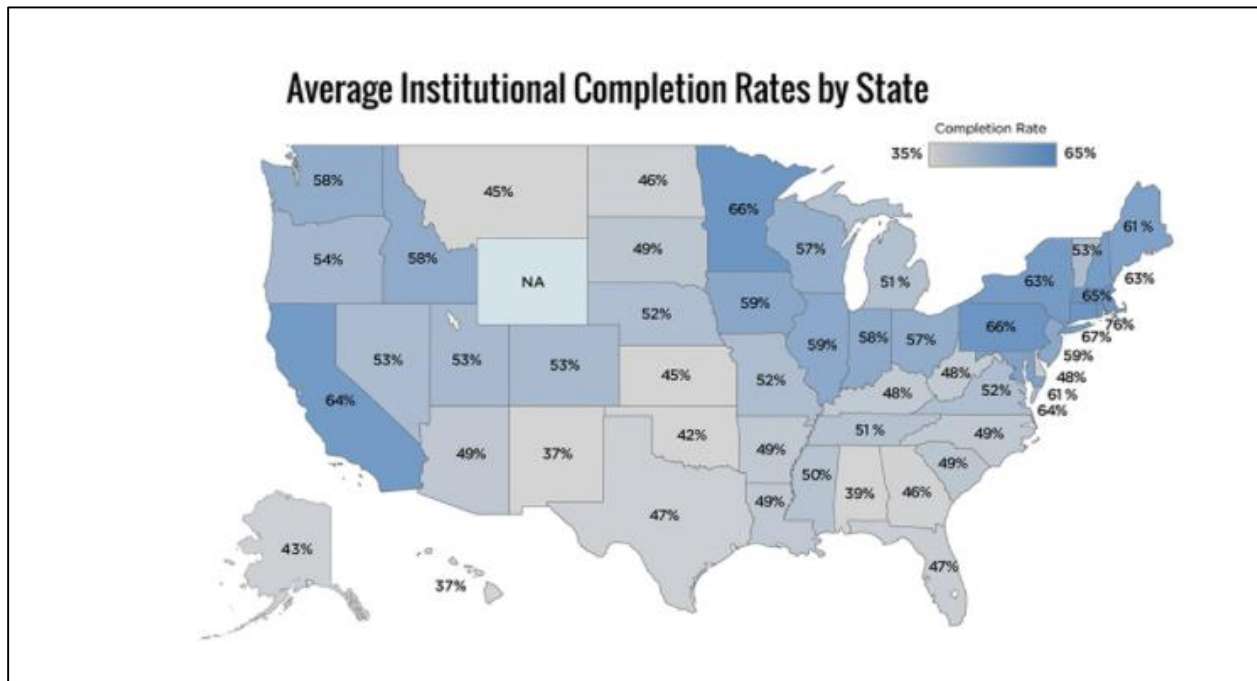

Figure 2. *The Quality Crisis at America's Private, Non-Profit Colleges.*

This nationwide predicament has not gone unnoted by educational institutions and state learning commissions whose youth as well as workforce bear the negative impact of declining graduation rates. In 2016, the Education Commission of the States in accordance with President Obama's education initiative developed a goal for the United States to have the highest proportion of student graduating college in the world (McGuinness, 2016). The initiative proposed that the United States should be set specific objectives that are measurable, including quantifiable goals for college preparation, access, participation, retention, graduation and responsiveness to other

state needs (McGuinness, 2016). More specifically, the initiative sought to engage civic businesses and gather analytical information to guide the choices of statewide policies, which affect public entities and guide the reasoning behind all higher education institutions. In particular, this active initiative in the United States demonstrates the capacity for which institutional appropriations, financial aid, and tuition can influence students across the spectrum of income (McGuinness, 2016).

Besides educational institutions and state learning commissions' forward-thinking initiatives, higher education institutions as well as stakeholders are focusing on making systematic changes. The goal is to implement changes that emphasize student success at all levels but especially for students with predisposed income issues. Senior director of post-secondary education at the Center for American Progress, Ben Miller says that "Lowest-income students are the hardest hit, but the effects of more expensive education are creeping up the income spectrum, and must be addressed" (Dickler, 2016, p. 2) . Higher education stakeholders as well as state and federal programs are actively working to better understand student success and the implication low-income students' face in a system founded on barriers (Dickler, 2016).

Academic Preparation

Income issues are not alone in serving as a barrier for student success and higher education completion rates. Since the founding of college in the United States, ensuring academic preparation has been a key to admittance, success, and eventual graduation. Yet, today in the modern era, there is a sinkhole of academic preparation in the primary and secondary education phases thus leading to a lack of skills required in the higher education setting. In a study performed by the National Center for Public Policy and Higher Education, data indicates a growing gap between enrolling in college and being college ready in the academic setting. Figure 3 represents the lack of readiness in the United States for a collegiate degree seeker. Furthermore, Figure 3 elaborates on how the

issue of academic preparation continues to be a growing culprit in the low graduation rates that the United States overseas at primarily four-year institutions (Beyond the Rhetoric - Improving College Readiness Through Coherent State Policy 2010).

Figure 3. *The Quality Crisis at America's Private, Non-Profit Colleges.*
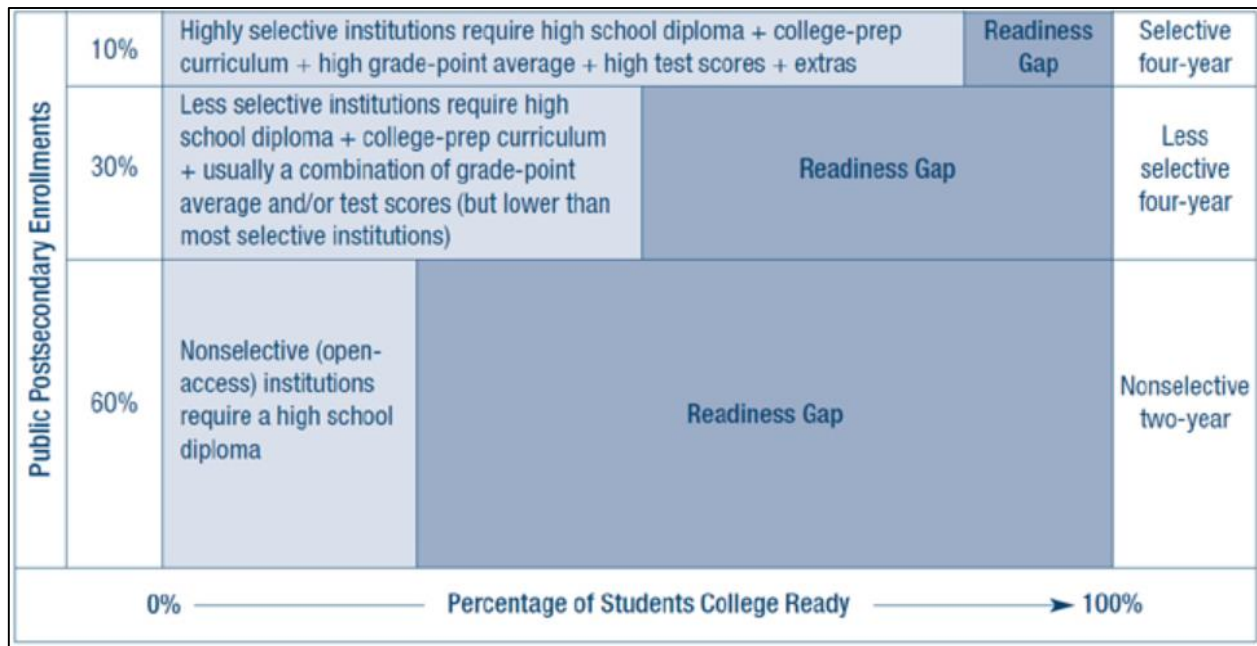
When higher education institutions face students with little to no academic preparation, there is a wedge driven between financial ability, academic success, and completion rate. A statistical analysis report developed by the National Center for Education Statistics identified an index in 1992, which helps higher education institutions determine academic preparation. The index includes rank in class, ACT/SAT scores, high school grades, as well as math and reading test composites (Carroll & Horn, 1997). Today, the majority of higher education facilities still admit students and predetermine coursework based on the National Center for Education Statistics developed index. While there, are many factors that lead to collegiate admittance, students remain academically unprepared and are influenced to take remedial coursework at the collegiate price.

In regards to remedial coursework and academic success, the U.S Department of Education found the following:

> Students who are not prepared are also much less likely to succeed in college. For example, only 34 percent of students needing remedial reading completed a degree compared with 56 percent for students who did not take any remedial courses. It is quite clear that improving access and success in college requires a continued push to improve the education students receive in their elementary and secondary schooling. This emphasizes quite clearly how closely linked K-12 and postsecondary education are (*Low-Income and Minority Students*, page. 3).

When students pursue a higher educational degree without proper academic preparation from the primary and secondary system, both the student and the university are invested in the burden financially and mentally. Academic preparation and low-income backgrounds are closely linked together in the fight to overcome graduation barriers at the collegiate level. Academic preparation upon graduation from secondary education is a competency divide for both higher education facilities and the workforce (*Low-Income and Minority Students*).State officials and federal legislatures are actively involved in brining recognition and aid to the academic preparation issue. The disparities that lack of academic preparation bring to the United States cause a delay in to not only collegiate success but also the workforce. In 2018, activist and influencer, Michael Bloomberg pledged millions in contribution to leverage help for students who desire a collegiate experience (Fay, 2018). Bloomberg stated, "Taking innovative approaches to improving and reforming K-12 education" (Fay, 2018, p. 2) and the necessity of an academic preparation campaign. Academic coursework and higher education preparation techniques continue to see developments to align primary, secondary, and high education academia.

How has affirmative actions and undermatching impacted historically underserved students from obtaining a higher education degree?

Affirmative Action

The dynamic history of affirmative action in higher educational institutions practices in the United States represents the ethical dilemmas that historically underserved students face in this country. Historically underserved students have faced educational barriers based on their skin color, ethnic background, and minority standing, which have played a role in the security of obtaining a higher education degree. President John F. Kennedy first coined the phrase, affirmative action, as a term to address racial disparity in the spring of 1961 (Torres, 2020). Since the mid-1900s, affirmative action practices have affected students in a cross-functional method, essentially pulling higher education seeking students from a historically underserved background between the dimension of success or failure. Affirmative action practices, at the higher education level, have an array of implications and yet today are still highly debated (Torres, 2020).

Due to the nature of affirmative action and the meaning of this coined phrase, the outlook from an outside perspective is positively recognized. Counterintuitively, data disputes and represents the implications of the impacts affirmative action has on historically underserved students and their overall collegiate success. In regards to mounting empirical research and educational success indicators, Slattery (2015) found the following:

> Students admitted based on their skin color, rather than their merit, may end up "mismatched" with their school, which leads to low grades and high dropout rates. Affirmative action-induced low grades are a serious problem—as demonstrated by research over the course of the last decade. For example, in one study of top law schools, more than 50 percent of African-American law students were in the bottom

10 percent of their class. And the dropout rate among African-American students

was more than twice that of their white peers. (p. 2)

When students face the educational barriers due to the history of racism and discrimination in the United States, unintended adverse effects of policy create additional burden. Affirmation action was intended to ensure that diversity is obtained in the United States throughout schools as well as the workplace. However, in regard to high education graduation rate success, has in-turn mismatched students to universities who do not offer diverse programming nor inclusive practices. A study in California highlights the success for historically underserved students when affirmation action practices are powered down (Slattery, 2015). Between the years 1997 and 2003, when affirmative action practices were voted against, California saw a 50% increase of historically underserved students in STEM fields (Slattery, 2015). While California has since adapted largely to new practices, which highlight the needs of historically underserved students, the data provided to higher education stakeholders from this research was stupefying. Today, while affirmative action remains a vigilant topic in higher education, support for disbanding these metrics is growing across the United States. Recently, former Princeton President William Bowen and former Harvard President Derek Bok stated, "College grades for beneficiaries of affirmative action present a sobering picture. The grades earned by African-American students often reflect their struggles to succeed academically in highly competitive academic settings" (Heriot, 2015, p.3), even though both were pioneers in affirmative action policies.

While affirmative action has proved to pose challenges for higher education institutors and students, many civil rights advocates share frustrations with the legal limitations for promoting diversity across both public and private institutions. According to the American Bar Association, Torres (2020) found "the policy has lost its intended purpose of amending structural disadvantages,

arguing it fails to adequately assist minority students from lower-socioeconomic backgrounds and ignores structural inequities." (p.3).The results of affirmative action practices, in terms of graduation rates across the United States, pose a significant challenge. It will take both parties, higher education institutions and legislators, working together to devise a progressive plan. Today, efforts surrounding progressive plans for higher education students, are striving to promote diversity and inclusion efforts while maintaining acceptance rates, which allow students to prosper through a successful degree completion. (Torrres, 2020)

Undermatching

The challenges students face while pursuing higher education range from a wide variety of unique circumstances but for many students in the United States, academic undermatching continues to limit opportunities for success and collegiate completion. Academic undermatching in higher education is defined by the principle that students are able to enroll in colleges, that are less academically selective than those for which they are academically prepared for (Arguments For and Against Affirmative Action). When undermatching occurs, the effects are significant as the number of degree attainment successes declines drastically. Academic undermatching has been studied many times over the recent decade and researchers today have concluded evidence, which amplifies conclusions that higher education institutions have been drawing since the start (See Figure 4).
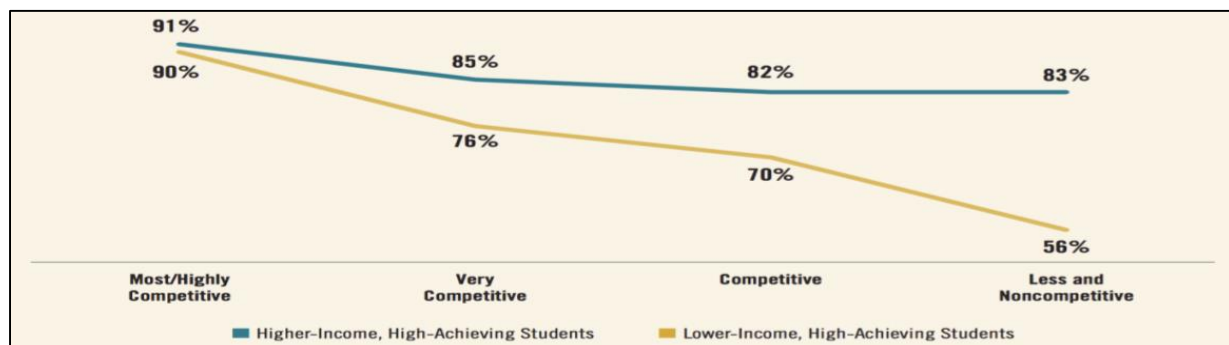

Figure 4. (Boehm, n.d.). *Undermatching - What is it and how can we prevent it.*

Beyond baseline academic undermatching, significant issues for higher education students arise when predisposed issues such as low-income characteristics are quantified. To display the understanding that academic undermatching is a real issue challenging students across the United States, data now incorporates low-income, high achieving, and traditional income levels, as well as race into recent studies (See Figure 5).
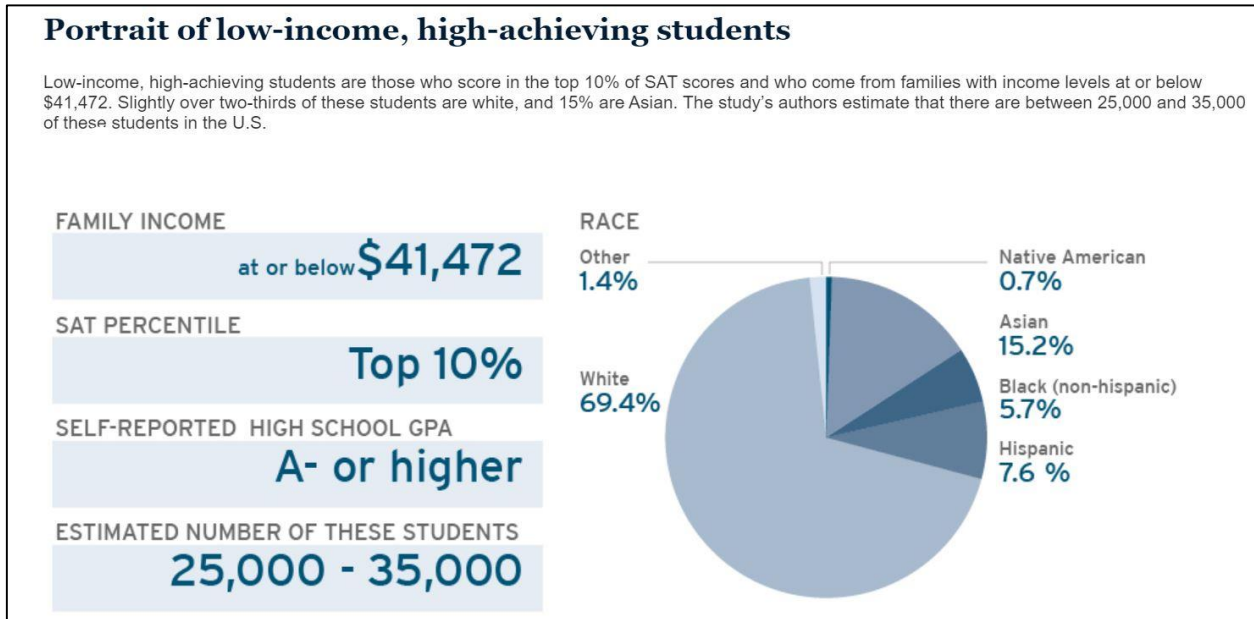

Figure 5. (Boehm, n.d.). *Undermatching - What is it and how can we prevent it.*

Throughout the various impacts displayed of academic undermatching, one of the highlights of this ongoing issue is students' collegiate success and development. When undermatching is utilized to accelerate students into academic institutes, with predisposed risk factors for undermatching, students' success throughout their collegiate career on average is lower than those who were granted admission based on substantially different merits (Boehm, n.d.). Undermatching at the collegiate level on the surface, for example upon admission, does not prove to display any apparent long-term impacts but once a student is within coursework or struggling to overcome challenges of fitting in, finding friendships, or even likeminded students, the success rate is jeopardized. When students are involved in academic undermatching there is a collegiate

success and development barrier which lead to lower graduation rates, financial burdens, and implications throughout the entire collegiate experience (Boehm, n.d.).

The factors, which contribute to students becoming involved in systematic undermatching, include perceived cost, access to counseling, as well as knowledge or intimation and the limit of spots available (Boehm, n.d.). In addition to the factors, which contribute to undermatching occurring, recent studies indicate that female students' represent the highest proportion of classified under matched collegiate students (Gansemer et al., 2017). While females lead the undermatching issue, the data results for undermatching die to race and ethnicity were mixed. Data indicated that students identifying as white had the highest number of students aligned for undermatching along with students identifying as African American having the lowest proportion of undermatching occurring, The recent studies indicate mixed results as this could be based on participants, the difference in the college going rates, and low-income factors (See Figure 6).

	n	1	2	3	Operationalization 4	5	6	7	8
% Defined as undermatched		15.0	30.9	22.9	38.4	14.9	27.9	20.3	36.3
Gender									
Female	4,230	15.17	32.59	24.67	39.39	14.89	29.02	22.12	36.79
Male	3,510	15.13	29.32	20.97	37.78	15.10	27.18	18.43	36.21
Race/Ethnicity									
White	5,000	16.56	35.28	27.03	44.38	16.56	32.43	24.10	41.94
African American	850	6.15	14.32	8.28	16.45	5.68	11.48	6.86	14.91
Asian	780	15.38	24.87	18.59	31.92	14.23	22.69	17.18	30.26
Hispanic	290	16.61	31.83	19.03	32.53	17.65	27.68	16.96	31.49
Biracial	770	15.25	28.81	19.30	35.20	14.99	25.03	16.43	33.51
American Indian	30	12.9	22.58	16.13	29.03	12.9	19.35	16.13	25.81
Pacific Islander	20	8.70	30.43	8.70	34.78	8.70	26.09	8.70	34.78

Figure 6. (Gansemer et al., 2017). *Definitions Matter: Investigating and Comparing Different Operalionalizations of Academic Undermatching.*

Academic undermatching at the collegiate level is an issue that incorporates many different stakeholders, personnel, and entities. In order for a solution to come into fruition for academic undermatching, researchers encourage steps be taken to work with institutions and the government

as well as the media. Furthermore, studies indicate by working with past low-income graduates and industry leaders, efforts can be made to correct academic undermatching (Jaschik, 2018).

What are the significant 4-year graduation rate gap risk factors for students?

Student Graduation Risk Factors

The post-secondary graduation rate risk factors for degree-seeking students in the United States continue to build off barriers that are visible throughout a students' admissions process and degree work (Horn, 2006). The National Center for Education Statistics (NCES), which serves as the primary federal entity for reporting education data in the United States, has emphasized through data collection as well as analysis the high-priority of identifying graduation rate gap risk factors. The NCES, through widely analyzed data, has indicated that college graduation rates are associated with student characteristics and that students' academic preparation, measures of socioeconomic status, as well as parents' education are highly predictive towards attaining a collegiate level degree (Horn, 2006). Students, as ascertained by the NCES, face a great dealt of significant 4-year graduation rate gap risk factors, which have led to the decline in graduation rates across the United States over the recent decades (Horn, 2006).

Graduation rate tracking, while a key metric in the world of assessment today, is inevitably a new phenomenon in the terms of data collection with the Department of Education making its first collection in 1985 (Horton, 2015). Before the recent era, college-going students faced a significantly different experience since risk factors for degree attainment were unidentified. The effects of not identifying risk factors especially during the collegiate admissions process lead students to face disparities throughout their collegiate experience. When risk factors are ignored prior to admission, counseling services, financial aid, and other programming provided face hardships in order to services the number of students needing help thus forcing universities to face

budgetary issues when trying to keep up with the demand that they are facing at the collegiate level (Horton, 2015).

While the effects of not identifying risk factors, especially during the collegiate admissions process are significant, understanding the risk factors that students face throughout their degree progress sheds light on the decline that the United States continues to see in the number of degrees attained. According to Horton (2015), a study conducted by The University of Chicago in partnership with the Lumina and Raikes Foundation stated:

> We found that there are five categories of non-cognitive factors related to successful academic performance: academic behaviors, academic perseverance, academic mindsets, learning strategies, and social skills. These skills are integral to enable students to learn how to learn, transfer knowledge, and think critically, which challenges them to grow in self-knowledge. Guiding students in learning key methodologies is vital if educators are to assist students in addressing their own problems and limitations in practical ways. This requires educators to think and act differently in achieving their educational mission, to identify high-risk factors, delineate models to address them, and document effective strategies that challenge students in their thinking, reflection, performance assessment, and growth. (p. 95)

Through the help of research and an uptick of interest in this topic by stakeholders as well as government officials, the main risk factors which students face through their degree progress have been identified and studied closely (Horton, 2015). The major risk factors that students face towards degree attainment include a lack of self-discipline, financial constraints, and lack of support system including mentors as well as role models. These risk factors in collaboration with

the countless other risk factors one must hurdle as a student to obtain a degree explore the research and relationship to learner academic success (Horton, 2015).

Looking into the data analyzed in relation to the main risk factors, the details share the impact of lack of self-discipline, financial constraints, and lack of support system including mentors as well as role models on students'(Horton, 2015). When analyzing the lack of self-discipline in higher education students, it is described as the inability to deal with immediate gratification versus long-term goals. It has been proven, in recent studies, that when said students' lack a strong control of themselves there is a higher inability to persist and attain good grades. Time management and prioritization coupled with a few other risk factors whether that be mental or physical health is a leading cause in students not obtaining a higher education degree. When analyzing the second significant risk factor, financial constraints, the higher education community continues to see this trend across various student barrier fronts. The financial constraint risk factor is most acute with when a student runs out of money for their collegiate degree and one must weigh the cost of available time to study versus available time to work in order to pay for school expenses. The economic terms of opportunity costs is duplicated in higher education degree seeking students and with students each coming from financially diverse background, the cost of college is significant. When analyzing the third significant risk factor, lack of support system including mentors as well as role models, the implications are narrow as students lack access to someone who could assist with career direction and goals thus furthers the risk of a successful degree attainment (Horton, 2015).

Graduation rate gap risk factors for students is an ongoing challenge, which educators and government entities have placed, and emphasis as well as focus on. Potential solutions for major risk factors that students face are consistently being addressed at the various levels of education in

the United States in order to increase the college going rate along with degree attainment (Rong & DesJardins, 2008).

How does students' sense of belonging play a role in earning a higher education degree?

Sense of Belonging

Numbers, data points, and academic merit most commonly demonstrate the success of a student in a collegiate environment but the deeper graduation rates continue to fall in the United States has now forced researchers to evaluate both quantitative and qualitative data (Rong & DesJardins, 2008). According to Morow & Ackermann (2012), recent studies conducted through The University of Tennessee have helped institutes as well as government entities understand the importance of motivation and sense of belonging as it pertains to graduation stating:

> How connected students feel to their university is an important construct to consider when looking at why students may or may not persist at an institution. Sense of community, or sense of belonging, can be defined as the sense that members of a community feel that they belong and that they matter to one another. Researchers have found that sense of belonging is related to academic progress, academic achievement and social acceptance. (p. 2)

When researchers compound data metrics with a heightened understanding of how students internal feelings, emotions, and mental health are absorbed into the picture, light has been shed on key elements to ensuring student matriculation. Many universities, following studies such as the one conducted at The University of Tennessee, have been able to adjust not only individual campus advancements but also mandating requirements through higher education commissions to provide opportunities for students, which increase student motivation and sense of belonging. As the United States embarks on the next generation of college seeking students, an emphasis on students'

sense of belonging partnered with advocacy on this topic will continue to advance graduation rates from what we have seen throughout the 1990s and early 2000s era (Morow & Ackermann, 2012).

When students lack a sense of belonging, matriculation is indefinitely impacted. There are many different factors that affect students' success rate and sense of belonging, including living arrangements, friendship success points, campus involvement, and academic preparation as well as the ability to find likeminded individuals along with a countless list of predisposed characteristics due to financial and socioeconomic status (Schmid & Abell, 2003). A sense of belonging is imperative but maybe impacted often by characteristics that a student brings to campus with. By placing an importance on campus diversification and opening up avenues for students to find a sense of belonging at the various steps throughout a collegiate experience trends have been proven that there is an increase in matriculation. While at a national level, student involvement and student success points look strong as shown in the figure below, students desire an uptick from study groups and school clubs. Recent data points to the need for extended mental health services, residential life communities, and the key influence of activities to participate in as a member of the general student body (See Figure 6).

National

Public 4-Year Colleges

Participate in study groups	77%
Speak with faculty outside of class	85%
Participate in school clubs	49%

Figure 6. (Schmid & Abell, 2003). *Demographic Risk Factors, Study Patterns, and Campus Involvement as Related to Student Success Among Guilford Technical Community College Students.*

In addition, to growing students' sense of belonging through base level involvement, data indicates that students identified a need for their individual surrounding to exemplify support. Matriculation through the point of graduation is swayed by one's perceived thoughts as well as the support that they feel as student. Recent studies indicate clear results as students base their sense of belonging on their perception on their surroundings (See Figure 7).

The Relationship between Sense of Belonging and Intention to Persist/Retention

Variable	Intention to Persist			Second-Year Retention
	B	β	sr_i^2	Odds Ratio
Perceived peer support	.14	.12	.01	**2.06***
Perceived classroom comfort	-.17	-.13	.01	.94
Perceived isolation	.01	.01	.00	1.42
Perceived faculty support	.30	**.19***	.03	1.42

Note. For intention to persist, $R = .20$ and Adj. $R^2 = .01$. For second-year retention, *Cox & Snell* $R^2 = .03$.
*$p < .05$.

Figure 7. (Morow & Ackermann, 2012). *Intention to Persist and Retention of First-Year Students: The Importance of Motivation and Sense of Belonging.*

Students' sense of belonging while pursuing a higher education degree is a critical component for advancing the United States towards stronger graduation rates. Matriculation as well as persistence at the collegiate level has notoriously been implicated by students lack of sense of belonging and by creating efforts at both the statewide and institutional levels, students have been positively influenced. Researchers continue to address the barriers that a students' sense of belonging has on degree-seeking individuals and have identified many solutions to aid institutions

as well as higher learning commissions which pertain to graduation, persistence as well as collegiate retention (Morow & Ackermann, 2012).

What other implications, perhaps at the institutional level, exist?

Institutional Leadership Implications

The implications in higher education of declining graduation rates do not just affect our workforce, state success, and individual degree-seeking students, but also the staff and faculty at the institutional level (Kim, 2020). In the winter of 2020, Marquette University announced its plan to terminate 225 faculty and staff positions within the next year (Kim, 2020). While Marquette University shared that they are making these cuts to prepare for the sharp decline the United States will soon see in the demand for higher education due to birth rate, officials reports a much larger ploy in action (Kim, 2020). Marquette University, like many on the universities across the United States, is facing a $20 million shortfall in their ability to serve students efficiently with approximately 21% of their 2017 enrolled freshman unable to obtain a degree in six years (Falk, 2020). Marquette University, similarly to many other higher education institutions, are facing the hardships of declining graduation rates.

With enrollment decreasing along with graduation rates still on the decline, university leaders are facing implications across the board (Falk, 2020). Implications vary from university to university but overarching themes include the budgetary cuts, faculty and staff removal, along with student programming on the decline 2020 pushed, the implications that universities face into battle with the ongoing pandemic, the funding that universities need to survive is falling quickly (Kim, 2020). Institutional leadership over the coming years will have to continue to address the wages and budgetary options thus shifting a focus from expanding to surviving (Marquette University Graduation & Retention). Marquette University provost Kimo Ah Yu, shared "We do not want to

build a university on the hope that students will come" (Kim, 2020). Universities are beginning

preparations for the challenges they will face but institution leadership, faculty, & staff may be at

the forefront of those changes to come (Marquette University Graduation & Retention).

Universities across the United States have been advised to begin looking at offering early

retirement incentives to their faculty and staff population. While universities are aware that these

packages would need to be generous, universities will not need the same amount of staff present

for students in the coming years and offering these incentive packages would ensure that the

campus goodwill remains positive (Marquette University Graduation & Retention).

Graduation rate declines coupled with the declining enrollment rates across the United

States have had a significant impact on institutional leadership, faculty, and staff. Marquette

University is just one of the many organization facing budgetary and graduation rate shocks. As

the United States continues into the next decade, the implication that institutional leadership will

face show the nature of student matriculation and higher education implications for stakeholders,

students, institutions, as well as out developing workforce (Kim, 2020).

Conclusion

Higher education been an integral part of our world for centuries and as strived to help

individuals develop themselves, our economy, and workforce. As society has evolved, issues

developed throughout higher education leading to debt, disparities, and lack of societal success.

The academic barriers and general unfair practices in higher education have made it more difficult

for historically underserved individuals to fulfill completion of their chosen degree. In recent years,

governmental entities, stakeholders, and institutions themselves have emphasized the need to

address these academic issues, but primary and secondary education have been slower to respond

to the pressing issues of preparing our next generation with fundamentals which lead to higher

education graduation. In other words, the emphasis on increased higher education graduation rates has made significant efforts to advance but alignment throughout all levels of education is necessary for a larger impact to be seen in higher education.

Academic disparities and predisposed risk factors are fashioned within our society. Although students from historically underserved communities are slowly beginning to make headway in the world of higher education, there are still many more advancements to be made to ensure that students pursue degrees have the ability to ultimately find success at graduation. Despite the efforts of many institutions and higher education learning commissions that actively responded once researchers discovered gaps within our institutions to graduate students, some states as well as institutions are still misled in their efforts. In order for graduation rates in the United States to be turned around higher education must address the balance between affirmative action and the academic undermatching. It is essential that the state of higher education come to terms with proven research analyses and adapt to the changing environment of the United States society to ensure success as well survival. Recent data collection and future college going rate statistics have opened the conversation on the barriers that degree-seeking students face due. Student matriculation, retention, and inevitably graduation are forefront objectives that must lead the cause to overcome the predisposed risk factors the disparities that exist in our nation. Although these challenges are not a pressing concern such as the pandemic, these barriers will ultimately play a difference in the growth of the United States, our economy, and workforce eligible individuals. It is the goal of institutions, stakeholders, and higher education learning commissions that more awareness, progressive action, and educational advancements through primary, secondary, and post-secondary education, will withdraw these issues and limitations from their practices for students from any walk of life to find successful matriculation and graduate.

References

Carnevale, A., & Smith, N. (2018). Implications For Low-Income Students. *Balancing Work and Learning*. https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/Low-Income-Working-Learners-FR.pdf.

US Department of Education. *Low-Income and Minority Students*. Archived Information. https://www2.ed.gov/offices/OPE/AgenProj/report/theme1a.html.

Arguments For and Against Affirmative Action. Pros and Cons. https://www.mtholyoke.edu/~jesan20l/classweb/arguments.html.

Boehm, C. *Undermatching - What is it and how can we prevent it.* NACA. https://www.nacacnet.org/globalassets/documents/professional-development/essentials/montgomery-cty-pd-day/undermatching.pdf.

Carroll, D., & Horn, L. (1997). Confronting the Odds: Students At Risk and the Pipeline to Higher Education. *National Center For Education Stastics*, (88). https://nces.ed.gov/pubs98/98094.pdf.

DesJardins, S. L., Ahlburg, D. A., & McCall, B. P. (2006). The Effects of Interrupted Enrollment on Graduation From College: Racial, Income, and Ability Differences. *Economics of Education Review*, *25*(6). https://doi.org/10.1016/j.econedurev.2005.06.002

Dickler, J. (2016, July 14). *College Costs Are Out of Control*. CNBC. https://www.cnbc.com/2016/07/12/college-costs-are-out-of-control.html.

Falk, T. (2020, December 9). *Marquette University Faces Strong Headwinds in the Pandemic*. Wisconsin Examiner. https://wisconsinexaminer.com/2020/12/08/marquette-university-faces-strong-headwinds-in-the-pandemic.

Fay, L. (2018, June 1). *Michael Bloomberg Pledges $375 Million to Help Prepare Students for College and Careers*. The 74 Michael Bloomberg Pledges 375 Million to Help Prepare Students for College and Careers Comments. https://www.the74million.org/michael-bloomberg-pledges-375-million-to-help-prepare-students-for-college-and-careers/.

Gansemer, A., Downey, J., & Genschel, U. (2017). Definitions Matter: Investigating and Comparing Different Operalionalizations of Academic Undermatching . *Research & Practice In Assessment* , *12*. https://files.eric.ed.gov/fulltext/EJ1168682.pdf.

Heriot, G. (2015, August 31). *A "Dubious Expediency": How Race-Preferential Admissions Policies on Campus Hurt Minority Students*. The Heritage Foundation. https://www.heritage.org/civil-rights/report/dubious-expediency-how-race-preferential-admissions-policies-campus-hurt.

Holly, A. (2014, May 2). *Evolution of College Admission Requirements*. Edu 300 Education Reform Past and Present . https://commons.trincoll.edu/edreform/2014/05/accepted-the-evolution-of-college-admission-requirements/.

Horn, L. (2006). Placing College Graduation Rates in Context: How 4-Year College Graduation Rates Vary With Selectivity and the Size of Low-Income Enrollment. *U.S. Department of Education. Washington, DC: National Center for Education Statistics*. https://files.eric.ed.gov/fulltext/ED494020.pdf.

Horton, J. (2015). Identifying At-Risk Factors That Affect College Student Success. *International Journal of Process Education*, *7*(1). https://www.ijpe.online/2015/risk.pdf.

Jaschik, S. (2018, April 16). *Inside Higher Education*. Study Finds Undermatching Remains

　　　Major Problem. https://www.insidehighered.com/admissions/article/2018/04/16/study-

　　　finds-undermatching-remains-major-problem-especially-black.

Kim, J. (2020). *The Misuse of Demographics as Justification for Faculty and Staff Cuts: Inside

　　　Higher Ed*. Learning Innovation. https://www.insidehighered.com/blogs/learning-

　　　innovation/misuse-demographics-justification-faculty-and-staff-cuts.

Marquette University Graduation & Retention. College Factual. (2020, December 25).

　　　https://www.collegefactual.com/colleges/marquette-university/academic-life/graduation.

McGuinness, A. (2016). History of State Coordination and Governance and Alternatives for the

　　　Future. *State Policy Leadership For The Future*. https://www.ecs.org/wp-

　　　content/uploads/051616-State-Policy-Leadership-for-the-Future-KL-final4-1.pdf.

Morow, J. A., & Ackermann, M. E. (2012). Intention to Persist and Retention of First-Year

　　　Students: The Importance of Motivation and Sense of Belonging. College Student

　　　Journal, 46(3), 483–491.

The National Center For Public Policy and Higher Education. (2010, June 5). Beyond the

　　　Rhetoric - Improving College Readiness Through Coherent State Policy.

　　　https://www.highereducation.org/reports/college_readiness/gap.shtml.

Page, L. C., & Scott-Clayton, J. (2016, May 19). *Improving college access in the United States:

　　　Barriers and policy responses*. Economics of Education Review.

　　　https://www.sciencedirect.com/science/article/abs/pii/S0272775716301248.

The Quality Crisis at America's Private, Non-Profit Colleges. Third Way.

https://www.thirdway.org/report/incomplete-the-quality-crisis-at-americas-private-non-

profit-colleges.

Rong, C., & DesJardins, S. (2008). Exploring the effects of financial aid on the gap in student

dropout risks by income level. *Research in Higher Education*, *49*(1), 1–18.

Schmid, C., & Abell, P. Demographic Risk Factors, Study Patterns, and Campus Involvement as

Related to Student Success Among Guilford Technical Community College Students.

Community College Review. 2003; 31(1):1-16. doi:10.1177/009155210303100101

Slattery, E. (2015, December 2). *How Affirmative Action at Colleges Hurts Minority Students*.

The Heritage Foundation. https://www.heritage.org/courts/commentary/how-affirmative-

action-colleges-hurts-minority-students.

Torres, G. (2020, January 6). *Affirmative Action in Higher Education: Relevance for Today's

Racial Justice Battlegrounds*. American Bar Association.

https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/bla

ck-to-the-future-part-ii/affirmative-action-in-higher-education--relevance-for-today-s-ra/.