# Comparative Analysis of America's and Germany's Higher Education System

by

Nadine Al Annabi University at Albany, SUNY

Abstract: There has been public interest in and policy debate about the best ways to encourage prospective students in the United States to complete a bachelor's degree. What are the most effective, efficient, and fair policies that state or the federal governments could adopt? Examining the similarities and differences between the German and American systems of funding higher education may shed light on the best policy approach. The political systems of Germany and the United States share a number of similarities. The German system offers a potential model and there are many policy ideas circulating in the United States. Yet, the United States has not made progress toward a comprehensive funding policy. Although stumbling blocks are rooted in history, two reasons for the failure in the United States to adopt a federal policy can be identified through comparative analysis. The first reason is the overly complex characteristics of the bills that have been introduced in the United States Congress so far. The second reason is insufficient collaboration between the states and the federal government. However, the experience of Germany shows that tuition-free college could be established in the United States.

## Introduction

Education should be a human right, not a privilege—a public interest that aligns with bedrock notions of democracy. Although individuals still disagree about whether college education should be free, there is a consensus that education, in general, has become so invaluable and necessary today that little economic advancement could be achieved without it. The issue is that this right should be extended beyond K-12 to include a public college education. Eliminating college tuition in the United States has been an ongoing movement, recently regaining momentum in 2015 (Pallardy 2019). This movement gained momentum as the cost of college education increased at about the same rate as the importance of a bachelor's degree (Dynarski et al. 2018).

Although earning a bachelor's degree has become important, access to a college education has not been very inclusive of less affluent individuals due to the expensive tuition, especially at top ranking schools (U.S. News and World Report 2022). The total sum of student loans in the United States in 2020 was \$1.7 trillion, surpassing that of credit card debt (Hanson 2021). While college enrollment and graduation rates have decreased, demand for a bachelor's degree has increased: it is now the minimum requirement when applying to over 30 percent of jobs in the United States (Dynarski et al. 2018). Providing increased access to affordable, high-quality education would mean that a person's socioeconomic status would no longer prevent them from pursuing a college degree. There have been various attempts to establish a federal law to eliminate the cost of tuition in the United States. However, those attempts have all failed for multiple reasons, including the high cost of implementing such a program.

In my analysis, I explore the differences between the German and American higher education systems and each government's policy options in legislating the cost of college education. This is a critical issue because universities are very susceptible to and can be impacted dramatically by economic downturns. We have witnessed firsthand the impact of an uncontrollable and unexpected pandemic on our nation's economy, resulting in increased poverty levels and drops in both college enrollment and graduation rates (Anderson 2022). However, the pandemic is not the first crisis to exacerbate or highlight issues of college enrollment. For example, the 2008 economic crisis also negatively impacted higher education in the United States.

Comparing the higher education systems could be helpful if the United Sates can learn from the experience of Germany, which implemented tuition-free college decades ago. Germany is one of ten Democratic Socialist countries in the European Union that has eliminated tuition at all colleges and is the largest economy in the world to have implemented such a program for citizens and non-citizens (World Population Review 2022). As the United States has come close but continuously failed for many decades to pass universal tuition-free college, other countries have had the opposite problem of the United States— finding methods to introduce tuition fees for

college education. The United States implicitly acknowledges the importance of college education through the increased national financial aid programs in an attempt to make college more affordable. In contrast, Germany explicitly acknowledges the problem by removing the cost of tuition entirely.

## **Background**

Legacy of the higher education system in the United States

The high cost of tuition has been an ongoing controversy for decades (Figure 1), especially as the cost of living in the United States continues to skyrocket. Expanding free education beyond elementary education dates back to Thomas Jefferson's "Bill for the More General Diffusion of Knowledge" (Pallardy 2019). He proposed that high-performing students should receive free advanced education. Following that, multiple laws, including Article IX of Indiana's Constitution of 1816, Florida's 1886 law (Cochran 2015) and Section 6 of Arizona's Constitution in 1910 (Arizona State Legislature) were designed to make the cost of tuition at state universities as low as possible (Pallardy 2019). It is important to note that the Free Academy of the City of New York, now known as the City College of New York, was the first college established "to provide children of immigrants and the poor access to free higher education based on academic merit alone" (City College of New York 2020). Additionally, some private universities were initially free to attend; for instance, Stanford University was a tuition-free university from its establishment in 1891 until 1920, as was Rice University (Pallardy 2019).

In the United States, the Higher Education Act of 1965 (P.L. 89-329, Federal Student Aid Handbook 2020) a federal law implemented by President Johnson to administer federal higher education programs. Its purpose is to strengthen the educational resources that American colleges and universities receive and provide financial assistance for students who cannot afford the expensive postsecondary and higher education costs. Such policies address multiple societal issues and encourage students to consider college and stay in their geographic areas, which is an economic investment in the community or state (Bell 2020).

Recently, the tuition-free movement gained momentum following President Obama's proposed America's College Promise program. The program was modeled on Republican Governor Bill Haslam's Tennessee Promise program, a "\$60-million-dollar matching grant program aimed at eliminating tuition and fee expenses for students in the first two years of community college" (Bell 2020). Although the cost of a college education continues to cause intra-party disputes, despite the tripling of the cost of education in public colleges from 1989-1999 (Figure 1), the perception of tuition-free public colleges has gained more attention.

\$40,000 Private \$36,880 Nonprofit Four-Year \$30,670 Published Tuition and Fees in 2019 Dollars \$30,000 \$23,890 \$20,000 \$17,860 Public Four-Year \$10,440 \$10,000 \$8,420 \$5,170 Public \$3,730 \$3.510 \$3,060 \$2,540 \$1,730 89-90 94-95 99-00 04-05 09-10 14-15 19-20

Figure 1: Trends in College Pricing

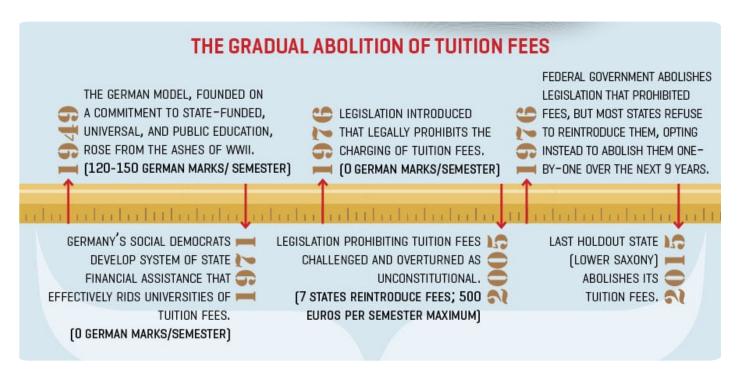
Source: College Board 2019

#### Legacy of the higher education system in Germany

The United States is similar to Germany in that each country consists of multiple states, each of which has an educational system and policies separate from and parallel to those of their federal governments. Before 1969, the German Federal Government did not have much discretion in shaping or structuring its college system (Figure 2). "Education is one of the areas in which the States are the principal policymakers, and they fiercely defend this prerogative from the encroachment of the Federal Government and the EU" (Welsh 2004). Since the 1976 Federal Framework Law for Higher Education, the federal government has become more involved in overseeing higher education in Germany. Following that, a German federal law eliminated the cost of tuition at public universities, which constitutes most universities in Germany. This law was implemented not long before the German Constitutional Court ruled in 2005 that it was unconstitutional for universities not to charge students for tuition (Bruckmeier and Wigger 2014). That led seven of sixteen federal states to reintroduce tuition fees between 2006 and 2007 (Bruckmeier and Wigger 2014).

Those states that implemented tuition deemed it constitutional and necessary for students to pay for their education to maintain the quality of education offered in these states. The maximum amount of tuition introduced was about 500 euros per semester. Still, none of the states in Eastern Germany or those led by the Social Democratic Party of Germany charged student fees (Bruckmeier and Wigger 2014). It was not too long before these states received backlash from the more progressive public against tuition fees; they argued that those fees "negatively affect the [students'] willingness to study". As a result, six states abolished tuition shortly after the court's ruling, and the last state abolished it in 2014 (Bruckmeier and Wigger 2014). In comparison, about 32 states in the United States have introduced some form of tuition-free programs, but there is no universal program prohibiting fees for all students attending public schools (Campaign for Free College Tuition 2022.

Figure 2: Germany's Tuition



Source: Affordable Schools 2021

## Factors that shape tuition legislation in the United States and Germany

Key to any social policy is a normative framework on which policies are designed. The United States and Germany differ in the shape of that framework. However, what is similar in the two countries is that, theoretically, elected officials are chosen by the public to represent the beliefs and opinions of the people. Thus, public opinion to some extent shapes legislation regarding the cost of college tuition, including opinions about meritocracy, reelection incentives, public and political support, and opposition.

# Policy Types

#### **Universal Policies**

According to Bell, the most crucial factor to consider when designing social welfare policies is the "variation in the design of tuition-free college eligibility ... by providing the guidelines for who gets what, when, and how" (Bell 2020). For each policy that is designed, there is a target or beneficiary group that the policy was meant to benefit while inversely excluding another group. Bell referred to the Policy Design Theory, which posits that stereotypes that define certain groups of people are "normative and evaluative, portraying groups as positive or negative with symbolic language that labels groups as deserving or undeserving" (Bell 2020).

A survey that Bell designed (Bell 2020), developed different hypotheticals about how tuition-free policies would look and which ones would receive the most support from the public. Her findings showed that respondents perceived universal tuition-free policies as more fair than policies that specify family income eligibility requirements, such as the New York State Excelsior Scholarship. A system that would depict college affordability as a right rather than an economic issue was received well by the respondents because it "creates a uniting purpose that appeals to the market insecurities in both working and middle-class families" (Bell 2020).

#### Merit-based Policies

In addition, policies that include academic merit requirements seem to receive much positive feedback from the surveyed pool of constituents. Bell concluded that there are more proponents of social welfare policies when people know that the students receiving free education are "qualified" or "college-ready," regardless of their socioeconomic status (Bell 2020). This qualification could be measured both by proof of completion of high school education and/or the student's high school grade point average (Bell 2020). This finding suggested that the public positively views those high-achieving students and thinks they deserve assistance because they will likely have bright futures and give back to the community (Bell 2020).

#### Needs-based Policies

Bell's survey findings showed college tuition policies that are more favorable to the public are financial aid policies that include a threshold for income eligibility. Policies such as the Excelsior Scholarship or Free Application for Federal Student Aid (FAFSA), appeared to be less desirable than merit-based policies. The target groups for these policies are usually less affluent individuals or families who might eventually benefit from financial assistance (Bell 2020). However, older constituents who worked multiple jobs during college to pay off their loans or tuition oppose these legislations because they were not available when they struggled (Bell 2020). Senator Sanders's and Congresswoman Jayapal's College for All Act included an eligibility threshold for qualified families earning \$125,000 or less to receive a tuition-free public college education (S.1288). The bill would be funded by taxing the rich. Opponents of the bill claim that those who want to pursue a college education should be capable of paying for their tuition instead of having others pay for it.

## Reelection Incentives

Because the United States is a democratic country and government officials are elected by the people they represent, the public has a say in how the country is governed, which policies are implemented, and which are not. Whereas the eligible voters are the ones who bring the elected officials to office, they also have the discretion to vote them out. Therefore, the destiny of elected officials lies in the hands of their constituents based on whether they achieve the plans and promises they include in their election campaigns. For this reason, politicians rely on "anticipatory feedback" (Bell 2020). As its name implies, elected officials "base policy design decisions on what they anticipate the public will support or oppose for the salient target populations to maximize the probability of reelection" (Bell 2020).

# Public Support

A Harvard Kennedy Institute for Politics poll stated that 85 percent of the younger voters support government action on student loan debt (Institute of Politics 2022). This very high percentage could be justified by inflation and the impact of the pandemic on the wage gap and job loss (Anderson 2022). Another survey displayed that more than half of Americans between the ages of 18 and 29 support tuition-free education at public colleges and waiving tuition for all income levels at community colleges (Institute of Politics 2019). Political ideology and age impact people's perception of social welfare policies. For example, about 85 percent of Democrats and Democratic-leaning independents strongly support tuition-free college for every American student regardless of socioeconomic status (Hartig 2021). On the other side of the aisle, a more extensive acceptance of tuition-free education is found among Republicans between the ages of 18 to 29 than among Republicans above the age of 65 (Hartig 2021).

# Political Opposition

Waiving the cost of a college education has caused intraparty disputes. Although most elected members of the Democratic Party have overwhelmingly favored eliminating all costs of education in public colleges, not all members share the view that college should be free for all (Hartig 2021). For example, 2020 Presidential candidate Pete Buttigieg rejected that idea because he believes expanding Pell Grants would be more economically efficient than having the federal government fund public college education (Kreighbaum 2019). In another example, Senator Amy Klobuchar joined with Mayor Buttigieg in arguing that giving out more aid in grants is more feasible than waiving college tuition for all four-year public colleges (Kreighbaum 2019). While Senator Klobuchar would vote in favor of free community college, both Klobuchar and Buttigieg would propose a more moderate solution— increasing financial aid and grants instead to ensure that students who need help are the ones who get assistance (Kreighbaum 2019).

Multiple factors play a role in how the federal government legislates the cost of tuition in the United States, with public opinion ranking high in the list of factors determining which policies are adopted and those that fail. Social welfare policies are viewed positively in the United States and Germany by most left-leaning constituents or younger generations. Such policies are criticized more heavily among moderates, right-leaning, and older constituents (Hartig 2021). This similarity begs the question, why the United States has not yet adopted a universal tuition-free program while Germany has long had one? The main takeaway from Bell's survey and analysis is that the design of such welfare policies determines how the general public would view such proposed legislation. Merit-based policies seem to gather more bipartisan support than needs-based policies, especially among more moderate voters because they assume that the constituents benefiting from such programs are college-ready and accomplished students who should receive further education (Bell 2020).

## **Looking Ahead**

# Leading and most recent policy proposals: College for All Act

The issue of free tuition surfaces periodically, thus yielding policy proposals, and has been especially salient in recent years as tuition and fees have outpaced inflation. Within the past 20 years, members of Congress have introduced several pieces of legislation that would eliminate the cost of tuition federally in community colleges and/or public colleges, including the America College Promise program, College for All Act, and American Recovery and Reinvestment Act of 2009 (Pallardy 2019). The latest high-profile initiative is "College for All," introduced in 2019 and again in 2021 (Jayapal 2019).

Senator Sanders and Congresswoman Jayapal's "College for All" Act of 2021 (S.1288) is the "largest student loan cancellation and free college plan in the history of Congress" (Forte 2021). The purpose of this bill is to waive college tuition for low-to-middle-class students. The topic of tuition-free education has been on progressive members' agendas for many years and has received opposition and support from both parties. S.1288 (2021) would waive college tuition costs and fees for "(1) all students at community colleges and two-year tribal colleges and universities; (2) working- and middle-class students at four-year public institutions of higher education and tribal colleges and universities; and (3) eligible students at private, non-profit historically Black colleges and universities and minority-serving institutions" (S.1288, 2021). Additionally, this bill would increase the maximum Pell Grant award from \$6,495 to \$12,990 and provide a \$10 billion investment to support historically underfunded institutions (S.1288, 2021).

Although S.1288 (2021) received overwhelming support from most of the Democratic Party and, most prominently, Vice President Kamala Harris, Senator Elizabeth Warren, and Senator Cory Booker, the bill received opposition from the Republican Party and multiple non-profit organizations and unions (Hartig 2021). It is complex legislation that would be funded by S.1283, the "Tax on Wall Street Speculation Act," purportedly so the costs will not end up falling on middle-class Americans (Yepez 2021). However, the National Taxpayer Union opposed S.1288 (2021) because union members believed that the bill is counterintuitive and will end up hurting the middle class whose 401(k)s and college savings plans will be affected by this tax (Yepez 2021)

Moreover, people who identify as Republicans have intraparty differences and also differ from Democrats on the issue of free-tuition college. Opposition to the fiscal impact of the bill is the leading Republican concern (Hartig 2021). According to a Pew Research Center survey conducted three months after the introduction of S.1288 in April 2021, Republican opinion on this issue is based on the individual's and educational attainment (Hartig 2021). "College graduates would realize the significance of obtaining a college degree and support removing college tuition for all American students" (Hartig 2021). However, the survey found that 76 percent of all Republican college graduates oppose this legislation compared to 58 percent of non-college graduates (Hartig 2021). Therefore, it seems clear that if the United States were to adopt and implement universal free public college education, the federal government should seek feedback from the public and not create complex bill proposals.

## Biden Administration

Progressives have introduced more debt-free and tuition-free bills over the years, including making community college tuition-free, which was originally part of the Build Back Better bill (Nguyen 2019). These bills have not advanced beyond introduction and rarely make it to a committee vote. The Biden platform was centered around assisting students and making college more affordable by eliminating the cost of community colleges in the United States and forgiving student loans. Ultimately, President Biden

had to give up on these initiatives to advance other parts of his agenda. He did so to gain more support from moderate democrats like Senators Amy Klobuchar and Department of Transportation Secretary, Pete Buttigieg, who criticize eliminating tuition costs in four-year public colleges. Buttigieg believes it is more feasible to double the Pell Grant, while Senator Klobuchar would be open to making community colleges free of cost.

# First and Last Dollar Programs

Fifteen states have implemented in-state tuition-free public college programs, including the Tennessee Promise Program and New York's Excelsior Scholarship (Helhoski 2021). However, these efforts are not widely known outside those states. Both programs provide free education at four-year public colleges and are last-dollar programs. The last-dollar program works in that "students must submit the FAFSA, and accept all need-based federal and state aid before the tuition-free benefit kicks in" (Helhoski 2021). Experts, including the Associate Director of institutional transformation for the Hope Center for College, Community, and Justice, perceived that a robust federal tuition-free program would be a first-dollar program (Helhoski 2021). Under a first-dollar program, tuition at public four-year institutions would be waived through that program, and students could receive funding to cover living expenses through their states' last-dollar programs. Several other states have some form of a financial assistance framework to attract and encourage students to pursue bachelor's degrees (Helhoski 2021).

Overall, there are multiple approaches that the United States can take to implement a nationwide cost-free public college program. America is financially capable of following in the footsteps of many European countries that have survived and thrived without mandating that students pay for their college education. Although there have been multiple attempts to create a federal program, a possible solution could be that each of the states that do not have any program of such nature would establish a tuition-free college education program. By doing so, the United States would technically have statewide tuition-free programs, which could be a stepping stone in the United States' journey toward universal cost-free public college.

#### Conclusion

The United States is more likely to favor a policy approach with merit-based or universal attributes over needs-based programs. A feasible free-tuition public college system could be a combination of "first-dollar" and "last-dollar" programs—that is, programs that cover student's college tuition and living expenses (Forte 2021) . State

laws would eliminate the cost of tuition in public or state universities through a first-dollar program, and the federal government would pay the rest or provide students with funds to pay for living costs, books, transportation, etc., through a last-dollar program or vice versa.

Collaboration between the federal and state governments could be efficient in that not one institution would be responsible for funding what is expected to be a costly system. With escalating costs of living and college tuition, young people tend to support social welfare services more than the older generations who felt they had to do things the hard way. Evidence suggests that younger constituents, Democrats and Republicans, favor federal assistance in student debt or tuition-free programs, which seems to indicate an enduring preference and long-term issue that will remain as millennials and Gen Z age.

The College for All Act is a good example of overly complicated legislation that would immensely assist low- and middle-class constituents if ever implemented. Still, it contains multiple components that lead the public to believe it is unfeasible or realistic. Nevertheless, ten countries have implemented and maintained a tuition-free public college program. Germany is the example used in this paper as it is the largest European economy to have offered such a service. That information illustrates that if the United States is determined to make such a policy a reality, it would not be the first country to do so and could persuade other countries to follow in its footsteps.

#### **Works Cited**

- Affordable Schools. "How Germany Made Higher Education Free." August 3, 2021, www.affordableschools.net/germany-free-education.
- Anderson, N. "College Enrollment Declines For Third Straight Year Since Pandemic." The Washington Post https://www.washingtonpost.com/education/2022/10/20/college-enrollment-declines-since-pandemic/. 2022.
- Arizona State Legislature, "1910 Arizona Constitution," <a href="https://ballotpedia.org/Article\_11">https://ballotpedia.org/Article\_11</a>, <a href="https://ballotpedia.org/Article\_11">Arizona Constitution#cite\_note-az-1</a>.
- Bell, E. 2020. The Politics of Designing Tuition-Free College: How Socially Constructed Target Populations Influence Policy Support, *The Journal of Higher Education*, 91:6, 888-926, DOI: 10.1080/00221546.2019.1706015.
- Bruckmeier, K. and Wigger, B. U. "The Effects of Tuition Fees on Transition from High School to University in Germany." *Economics of Education Review*, Pergamon, 12 Apr. 2014, www.sciencedirect.com/science/article/pii/S0272775714000399.
- Campaign For Free College Tuition,"2022 Candidate Guidebook." <a href="https://www.freecollegenow.org/">https://www.freecollegenow.org/</a>.

- City College of New York. "Our History." *The City College of New York*, 23 Jan. 2020, www.ccny.cuny.edu/about/history.
- Cochran, T. E. "History of the Public-School Education in Florida." *Leopold Classic Library*, *September 1, 2015.*
- College Board, "Trends in College Pricing 2019 Research." *College Board*, 2019, research.collegeboard.org/media/pdf/trends-college-pricing-2019-full-report.pdf.
- Dynarski, S., Libassi, C.J., Michelmore, K. and Owen, S. 2018. "Closing the gap: The effect of a targeted, tuition-free promise on college choices of high-achieving, low-income students." *National Bureau of Economic Research*, last modified June 2020. http://www.nber.org/papers/w25349.
- Federal Student Aid Handbook, "Higher Education Act of 1965 Table of Contents (as of August 26, 2020). Federal Student Aid, 2020. https://fsapartners.ed.gov/knowledge-center/fsa-handbook/pdf/2020-2021.
- Forte, J. "College for All Act: Lawmakers Propose Largest Student Loan Cancellation and Free College Plan in History. Fox 59, Fox 59, 22 Apr. 2021, fox59.com/news/national-world/college-for-all-act-lawmakers-propose-largest-student-loan-cancellation-and-free-college-plan-in-history/.
- Hanson, M. "Total Student Loan Debt [2021]: Federal vs Private (by Year)." Education Data Initiative, July 25, 2021. <a href="https://educationdata.org/total-student-loan-debt">https://educationdata.org/total-student-loan-debt</a>.
- Hartig, H. "Democrats Overwhelmingly Favor Free College Tuition, While Republicans Are Divided by Age, Education." *Pew Research Center*, August 13, 2021. <a href="https://www.pewresearch.org/fact-tank/2021/08/11/democrats-overwhelmingly-favor-free-college-tuition-while-republicans-are-divided-by-age-education/">https://www.pewresearch.org/fact-tank/2021/08/11/democrats-overwhelmingly-favor-free-college-tuition-while-republicans-are-divided-by-age-education/</a>.
- Helhoski, A. "Free College Is on the Table: Here's What It Could Look Like." *NerdWallet*, December 23, 2021, <a href="www.nerdwallet.com/article/loans/student-loans/what-free-college-might-actually-look-like">www.nerdwallet.com/article/loans/student-loans/what-free-college-might-actually-look-like</a>.
- Indiana Constitution of 1816, Title IX, Indiana Historical Bureau https://www.in.gov/history/about-indiana-history-and-trivia/explore-indiana-history-by-topic/indiana-documents-leading-to-statehood/constitution-of-1816/article-ix/.
- Institute of Politics. "Spring 2019 Poll." The Institute of Politics at Harvard University. Harvard IOP Youth Hall, 2019. <a href="https://iop.harvard.edu/youth-poll/spring-2019-poll">https://iop.harvard.edu/youth-poll/spring-2019-poll</a>.
- Jayapal, P. "College for All Act Introduced by Jayapal and Sanders." April 21, 2021. <a href="https://jayapal.house.gov/2021/04/21/college-for-all/">https://jayapal.house.gov/2021/04/21/college-for-all/</a>.
- Kreighbaum, A. "Pete Buttigieg, Democratic Candidate, Bucks Progressives on Free College." *Inside Higher Ed.* April 5, 2019. <a href="https://www.insidehighered.com/news/2019/04/05/pete-buttigieg-democratic-candidate-bucks-progressives-free-college">https://www.insidehighered.com/news/2019/04/05/pete-buttigieg-democratic-candidate-bucks-progressives-free-college</a>.

- Nguyen, S. "How will the Build Back Better Act invest in Higher Education?" *New America*, November 23, 2019. <a href="https://www.newamerica.org/education-policy/edcentral/how-will-the-build-back-better-act-invest-in-higher-education/#:~:text=The%20Build%20Back%20Better%20Act%20increases%20the%20purchasing%20power%20of,the%20next%20three%20academic%20years.
- Pallardy, R. "History of Student Loans: The Free Tuition Movement." Savingforcollege.com, February 1, 2019, <u>www.savingforcollege.com/article/history-of-student-loans-the-free-tuition-movement.</u>
- S.1288 117th Congress (2021-2022): College for All Act of 2021." April 21, 2021. https://www.congress.gov/bill/117th-congress/senate-bill/1288/text.
- S.1283 117th Congress (2021-2022): Tax on Wall ..." April 21, 2021. <a href="https://www.congress.gov/bill/117th-congress/senate-bill/1283/text">https://www.congress.gov/bill/117th-congress/senate-bill/1283/text</a>.
- U.S. News and World Report. "Economic Diversity Among the Top 25." U.S. News and World Report, 2022. https://www.usnews.com/best-colleges/rankings/national-universities/economic-diversity-among-top-ranked-schools.
- Welsh, H. A. "Higher Education in Germany: Reform in Incremental Steps." *European Journal of Education*, vol. 39, no. 3, 2004, pp. 359–75, http://www.jstor.org/stable/1503861. Accessed 1 May 2022.
- World Population Review 2022." *Germany Population 2022 (Demographics, Maps, Graphs)*, worldpopulationreview.com/countries/germany-population. 2023.
- Yepez, W. "The numbers don't add up in the college for all act." *National Taxpayers Union*. April 23, 2021. <a href="https://www.ntu.org/publications/detail/the-numbers-dont-add-up-in-the-college-for-all-act">https://www.ntu.org/publications/detail/the-numbers-dont-add-up-in-the-college-for-all-act</a>.