A Case for Higher Education:

Addressing Financial Sustainability in Community Colleges

Hannah Liu

Harvard College

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Dr. Manja Klemenčič

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Affirmation to the Honor Code:

I affirm my awareness of the standards of the Harvard College Honor Code.

Hannah Liu

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Abstract

Community colleges—two-year public institutions—are a vital part of the American education ecosystem. Providing academic instruction and vocational support to a disproportionate number of low-income students, students of color, and students who are otherwise unable to obtain similar resources, community colleges also serve as a crucial proponent of a mobile and vibrant economy. That said, community colleges have long faced challenges with finances, with a most pertinent root cause of lowered enrollment and therefore decreased tuition revenue. With the COVID-19 pandemic as an added interruption in normal operations, community colleges around the nation are encountering challenges to revitalize and continue acting upon its objectives. Through a case study on Bunker Hill Community College located in Boston, Massachusetts, interviews with its administrative members, and discussions with experts in the field, this paper finds that revitalization of community colleges relies on continued experimentation with instruction methods—including hybrid learning and non-term-time courses—as well as increased exploration of industry partnerships in order to target the growing interest that prospective college students have in career readiness and professional training.

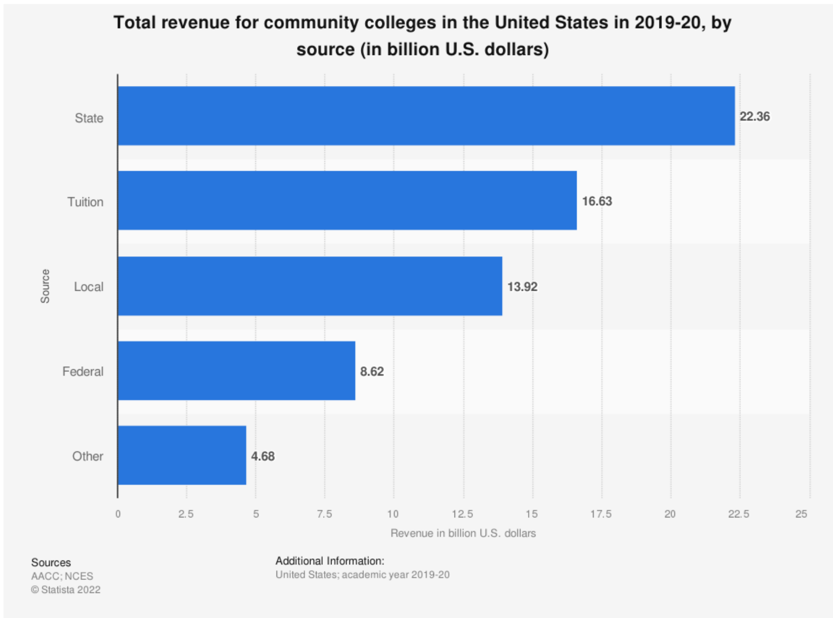
Keywords: community college, education, finance, enrollment, industry

I. Introduction

For most, if not all, colleges and universities, the main purpose for which they strive is to provide a transformative experience for students, offering a platform for academic, extracurricular, and personal exploration throughout their careers at the institution. However, such an objective is becoming increasingly difficult to accomplish. In recent years, a large number of institutions, both public and private, are witnessing an imbalance on their financial records, where total expenditures are rapidly hiking upwards against total earnings (Denneen & Dretler, 2012). The situation does not exclude community colleges, whose societal role is important yet for which conditions are perhaps most severe. In the United States, community colleges are institutions that offer two-year programs that provide workforce skills or potential pathways to four-year schools for further education (Homeland Security, 2012). Besides what they offer, community colleges are crucial to the overall ecosystem of American education by serving a disproportionate number of low-income students, students of color, and other students of marginalized communities who are otherwise unable to obtain education. Aside from providing practical skill-learning in preparation for employment, community colleges play an essential role in vitalizing social mobility in the U.S. economy (Yuen, 2020).

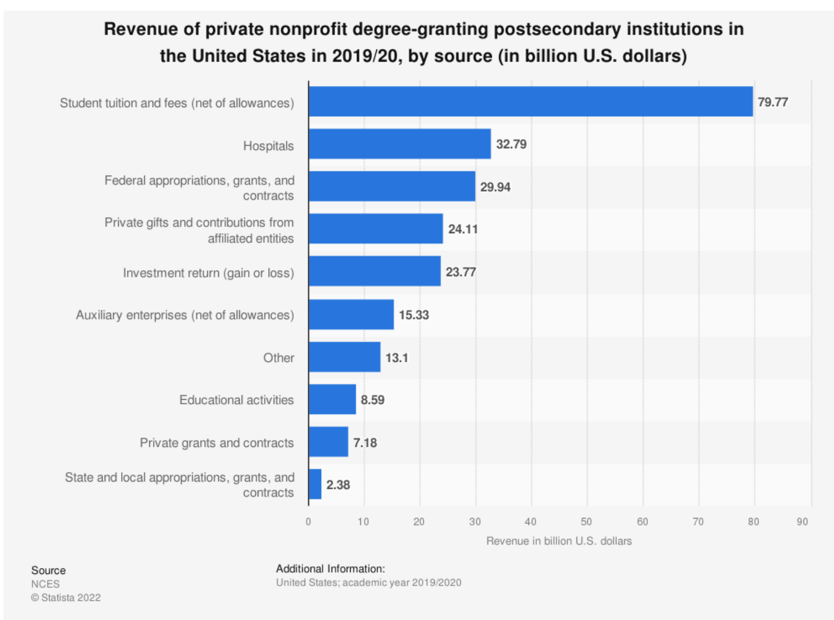
As important as they are, community colleges have been struggling financially to thrive in the past few years. At a first glance, revenue streams for community colleges can be broken down into a few major components: state funding, tuition, local funding, federal funding, and others. From 2019 to 2020, the largest source of revenue was state funding, totaling at $22.36 billion, followed by tuition and associated fees, totaling at $16.63 billion; other amounts included $13.92 billion of local funding, $8.62 billion of federal funding, and $4.68 in other forms of revenue (Figure 1a). These numbers contrast significantly against revenues for public four-year institutions, for whom between 2019 and 2020, tuition and fees alone totaled at $79.77 billion, and federal grants totaled at $29.94 billion (Figure 1b).

Figure 1a



Note: Total revenue for community colleges in the United States in 2019-20, by source (in billion U.S. dollars); *source: AACC (2022)*

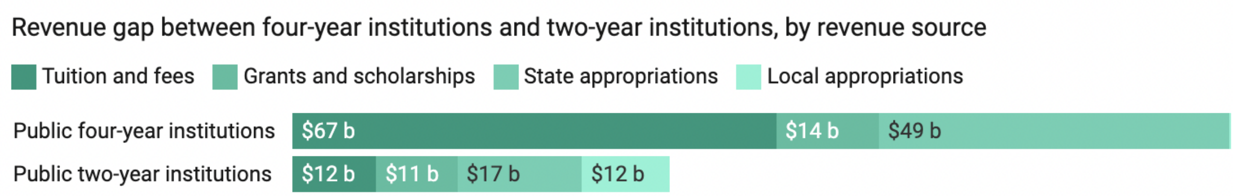
Figure 1b



Note: Revenue of private nonprofit degree-granting postsecondary institutions in the United States in 2019/20, by source (in billions of dollars); *source: NCES (2021)*

The figures are more striking when compared to similarly public but four-year institutions, which have good reason to see a somewhat similar—perhaps only slightly higher—amount of state appropriations, considering both types of institutions rely heavily on government grants and financial support. However, that is not the case. In 2019, public four-year institutions surpassed community colleges in state appropriations by more than 188%, totaling at $49 billion. Additionally, in tuition, public four-year institutions exceeded community colleges by more than 458%, totaling at $67 billion (Figure 2). This remained the case until the onset of the COVID-19 pandemic, during which new challenges in historic declines in student enrollment, tuition, and overall economic health pushed the government to reconsider funding towards public institutions, leading to two-year institutions achieving a 6% lead in state funding against four-year institutions in 2021 (State Higher Education Finance, 2021).

Figure 2



Note. Revenue gap between four-year institutions and two-year institutions, by revenue source (in billions of dollars); *source: Yuen (2020)*

Undoubtedly, much is to be done to revitalize the financial realities of community colleges, allowing them to find new ways and paths forward, engage public attention, provide the necessary learnings and resources for students, and thrive. This paper presents the current state of finances and related conditions in community institutions and addresses concerns with possible, actionable solutions. Section II discusses existing literature on financial conditions of community colleges; Section III presents the methods for the study and introduces a case study on Bunker Hill Community College (BHCC), a two-year public institution founded in 1973 in the Charlestown neighborhood of Boston, Massachusetts; Section IV details the case and analyzes the main successes that BHCC achieved and financial challenges that BHCC still confronts; Section V addresses concerns and explores potential solutions; Section VI concludes with broader implications and offers areas for future research.

II. Literature on Financial State and Outlook of Community Colleges

Much of previous literature and research explore the financial challenges of community colleges and potential solutions by focusing on spending, reform, and innovation. The Century Foundation (2019) cites inadequate state funding towards community colleges as the main obstacle. According to the article, community colleges are working with a substantially lower amount of available funds, forcing them to spend 60% less than public research universities. The Century Foundation points out a significant causal impact of institution spending on student degree completion, where "a 10% spending increase boosted awards and certificates by 15%," and "when students complete an associate degree, they will see their lifetime earnings increase on average by more than $300,000" (The Century Foundation, 2019). All of these implications strengthen the argument for increased state funding. Other than urging state governments to provide more funding, The Century Foundation also notes a possible way to create incentive for state funding, where federal-state partnerships are created: "states must agree to do their part in order to qualify for new federal investments in two-year institutions" (The Century Foundation, 2019).

However, even with federal incentives, states may be discouraged to increase funding due to the discouraging realities of low student-retention and degree-completion rates. Schneider and

Yin (2011) concentrate on the high costs of low retention and completion that have become a barrier against greater funding. According to the paper, "almost $4 billion in federal, state, and local taxpayer monies in appropriations and student grants went to first-year, full-time, community college students who dropped out" in the period between the 2004-2005 to 2008-2009 academic year (Schneider and Yin, 2011). Schneider and Yin point to reform of educational structures as a primary solution. For instance, a more structured schedule that blocks together class time and separates it from work time might make balancing both tasks easier for students. In another instance, shortening time needed to complete a degree by awarding credit for demonstrated competencies rather than length of time spent in the classroom might be another way to boost student retention and degree-completion rates.

An interesting reform did occur following the COVID-19 pandemic, where many institutions, community colleges included, began innovating with digital or hybrid learning. While this strategy did serve well as an emergency response during the pandemic and allowed institutions to continue holding classes despite social distancing, Kozakowski (2019) offers discouraging prospects of community colleges keeping hybrid learning when it is no longer necessary. Specifically, Kozakowski's study finds that community college students who use blended learning are significantly less likely to pass their courses. Additionally, blended learning appears to reduce the number of credits students earn, and perhaps even more detrimentally, "students also leave college earlier than they otherwise would have. Three years after enrolling, students are 5 percentage points less likely to have earned any degree (certificate, diploma, or associate's) and 4 percentage points less likely to earn an associate degree specifically than if they had been taught with traditional instruction" (Kozakowski, 2019). Evidently, even though digital and hybrid learning has been a successful way for institutions to continue operations and even expand operations in many capacities, drawbacks that may result in larger negative implications in the long run are crucial to acknowledge.

III. Methodology

To better conceptualize and understand the specific issues causing financial challenges for community colleges, I performed focused research on Bunker Hill Community College (BHCC), a public two-year college based in Boston, Massachusetts. Namely, I reviewed the college's financial documents from previous fiscal years, explored publicly available announcements and resources, and interviewed an administrative member of BHCC for a more intimate and detailed view of the college's operations and challenges. The interview encapsulated BHCC's current financial circumstances, challenges, and specific details and discrepancies that appeared on financial documents, such as assets and liabilities ratio, student enrollment fluctuations, tuition changes, grants and public funding, and immediate and long-term expectations and plans.

Additionally, I discussed the broader scope of operational resources and opportunities for community colleges with an expert researcher and faculty member at the John F. Kennedy School of Government of Harvard University. The conversation included a landscaping of the current macroenvironment and economy, as well as potential aspects of exploration for BHCC where they could leverage their advantages and established resources to further excel.

IV. Case Study on Bunker Hill Community College

Founded in 1973, BHCC is the largest community college in Massachusetts, making it an ideal case of reference in this research. One of the most affordable community colleges in the state, BHCC provides its students with over 100 academic programs facilitating students' efforts for career attainment or transfers to four-year colleges and universities. Additionally, BHCC prides itself on its diversity, which includes an approximate 61% of students who are people of color, 50% of students who are women, and a large number of international students from over 105 countries (Bunker Hill Community College, n.d.).

From a financial standpoint, BHCC derives approximately 60% of its revenues from student tuition and associated fees, followed by 30% from state appropriations, and the remaining 10% from other sources (BHCC Administrative Member, 2022). As with other community colleges, BHCC's most striking shift in finances in recent years has been a large decrease in state support from when states provided an approximate 60% to 70% of college revenues 15 years ago (BHCC Administrative Member, 2022).

Successes of BHCC's Financial and Operating Strategies

In the wake of the COVID-19 pandemic, as institutions across the nation and world are gradually returning to normalcy, BHCC has in many ways exemplified the process as it determined effective and innovative revitalization strategies with successful implementation. For instance, at the height of the pandemic, BHCC transformed 1701 in-person courses into hybrid mode, allowing students and faculty more flexibility in learning and instruction (BHCC Administrative Member, 2022). While hybrid learning was an emergency measure to counteract pandemic effects, the flexibility and ease that digital learning provided became a beneficial change to BHCC's mode of instruction that it deemed necessary to keep as a supplement to regular in-person learning following the pandemic's end. Aside from increased ease of instruction for students and teachers, BHCC also discovered that many administrative tasks can be more efficiently and effectively completed with administrative executives and staff working remotely (BHCC Administrative Member, 2022). Crucially, while a natural assumption would be that employees may be more prone to procrastination or distractions when performing tasks out of the office, BHCC found that employees were in fact incentivized to work longer hours and overachieve. The trust that the college could place in its employees became another proponent for keeping the digital learning and working model, thereby alleviating certain operating and financial pressures when classes and administrative tasks were held solely and completely on campus.

With the reduced operating costs, BHCC has continued to revitalize and renew its campus infrastructure, a technique used by many institutions to increase its attractiveness to prospective students and edge out competition. Due to hybrid learning and working and decreased activities on campus, BHCC saw a stark reduction in travel expenses, operations of athletic teams, catering, utilities, and other normally incurred operational costs (BHCC Administrative Member, 2022). At the moment, BHCC is in the process of building a 50,000 square foot student support center as an upgrade from originally situated police facilities and renewing its library to include additional collaborative spaces and integrated tutoring services (BHCC Administrative Member, 2022). While intended to increase student support and bolster student life on campus, improved infrastructure will also likely increase BHCC's attractiveness to prospective students choosing between different institutions. Crucially, BHCC is able to invest in infrastructure improvements without these efforts becoming an added burden on its balance sheet. In a contrasting instance, Louisiana State University—a four-year public research university—invested $85 million into student gyms and recreational facilitates to attract enrollment in 2015; the project included "a lazy river in the shape of the university's initials, a climbing wall, a rope course and a 40,000-square-foot weight and cardio facility," and was funded by quadrupled student fees, adding up to an approximate $1080 more over students' four-year careers than what students would have paid without the infrastructure change (Inside Higher

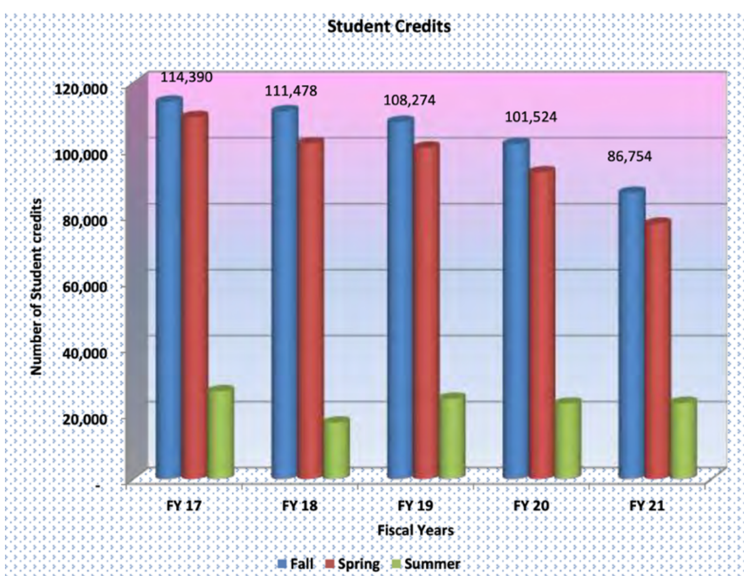
Ed, 2015). Evidently, while attractive campus infrastructure can serve to increase student enrollment and revenue from tuition, excessive investments in infrastructure can act as a disservice, creating a further dent in an institution's finances and student interest.

In addition to practical strategies, BHCC's financial challenges during the pandemic were largely mediated by the CARES Act, a $2.2 trillion coronavirus relief stimulus bill passed in response to economic losses and damages caused by the pandemic (U.S. Department of the Treasury, 2021). Altogether, BHCC was able to reach a comfortable position with little urgent and imminent financial challenges immediately out of the pandemic.

Remaining Problems and Financial Implications

While the CARES Act continues to provide BHCC and other community colleges with slight financial cushioning during and after the pandemic, one root cause of pessimistic financial conditions continues to loom: declining enrollments in community colleges. While exacerbated by the pandemic, striking drops in student enrollment is not a direct effect of the pandemic but a phenomenon dating earlier. In the case of BHCC, enrollment declines were already observed in 2017, demonstrating an approximate 24% drop between 2017 and 2021 (Figure 3).

Figure 3



Note. Clear declines in enrollment and student credits were observed between 2017 and 2021, with an approximate 24% drop in enrollment between the years; a slight continued increase in summer courses taken by students is observed despite pessimistic term-time enrollment conditions; *source: Bunker Hill Community College (2021)*

One reason for the consistent decline of student enrollment is the decreasing number of college-aged students. Simply put, economic conditions and circumstances in the last decade have resulted in a birth dearth—a stark decrease in fertility rates (Barshay, 2021). Naturally, there is a smaller population of individuals today who are old enough to enroll in colleges. Nathan Grawe, an economist at Carleton College, illustrates this phenomenon by saying, "When the financial crisis hit in 2008, young people viewed that economic uncertainty as a cause for reducing fertility. The number of kids born from 2008 to 2011 fell precipitously. Fast forward 18 years to 2026 and we see that there are fewer kids reaching college-going age" (Barshay, 2021). The circumstance seems especially grim for community colleges, as the dwindled college-age population is layered with added competition against four-year public institutions, four-year liberal arts institutions, and four-year elite research institutions.

Another reason for the decline in enrollment is a change in the perception that today's students have about educational attainment at a college level. While previous generations may have seen college education as a symbol of intelligence, an opportunity for exploration, or a means to gain social status, students today seem to value college education less and as an opportunity cost instead when compared to preparation for career readiness and professional success (BHCC Administrative Member, 2022). In other words, as opposed to a diploma indicating educational attainment, students are more interested in obtaining credentials that would launch them into the workforce sooner and with more success.

V. Potential Solutions and Areas of Exploration

As long as enrollment continues to dwindle—either due to a smaller college-aged population or dimmed belief in the value of college education—financial conditions for community colleges will continue to remain an area of worry for administrators. While very little can be done to manually reverse the trends of the birth dearth, attention could be directed towards reconsidering the educational product offered and how it could become a better match for today's needs and demands.

Community colleges could invest attention and resources into increasing the number of industry partnerships and collaborations, making internships and career-readiness programs available to students who increasingly value these opportunities. In the case of BHCC, its geographic location—Boston, Massachusetts—is a huge advantage to be leveraged. Often referred to as the "innovation capital of the world" or "the world's capital for life sciences," Boston has a booming economy with an approximate size of $400 billion, housing top firms in financial services, world-class medical facilitates, and research and development centers for the top 20 pharmaceutical companies in the world (Harvard University Expert Faculty, 2022).

Even with such a strong economic foundation, Boston is confronting challenges with rising interest rates and tightening labor markets under the looming recession. For a majority of firms trying to survive in the headwinds, the most acute problem is the lack of talent and, specifically, the question of whether there will be an adequate pipeline of talent in the coming years (Harvard University Expert Faculty, 2022). As Boston firms are in an increasingly desperate search for a pool of career-ready, diverse employees to form the necessary pipeline, community colleges such as BHCC seem to fit the desired profile near-perfectly. With a predisposed edge in professional-proficiency training against other types of higher education institutions, community colleges produce middle-skilled employees with at least 2-years of educational, professional, and societal training, a void that firms are especially desperate to fill (Harvard University Expert Faculty, 2022). As a successful case, BHCC has built a zero-cost program in partnership with the Massachusetts Competitive Partnership (MACP) to train students in customer service and administration, connect students with professional coaching, and give students a paid 10-week internship along with full-time job offers (Massachusetts Association of Community Colleges, 2022). Ultimately, more attention and resources towards increasing and improving internship programs, grants, and certification opportunities might help to reinvent the idea of the traditional college education and experience, cater towards today's interests, and revert lowered enrollment due to lack of interest in college education.

Additionally, colleges like BHCC who have found successful ways of adjusting and implementing effective changes post-COVID should continue to do so. For BHCC, while term-time enrollment has consistently fallen, summer courses are seeing small but promising increases (Figure 3). As summer and winter sessions take place over a shorter amount of time as compared to a regular fall and spring term, there is better flexibility in instruction methods (BHCC Administrative Member, 2022). BHCC and other colleges could leverage off-term sessions to increase experimentation with modes of teaching and learning or increase the number of courses offered to capture enrollment and tuition revenues.

VI. Conclusion

For many community colleges, the future remains rather obscure and uncertain. Even for those institutions that currently find themselves in a more comfortable post-COVID position, the prospect of operations after the depletion of funding from the CARES Act is daunting. An intuitive strategy for better preparation is effectively cutting costs and increasing revenue.

Currently, institutions seem to be seeing results from expanding hybrid or digital-learning methods in order to cut operational costs, while expanding upon professional opportunities for students and experimenting with summer and winter sessions could be ways to broaden revenue streams. That said, future experimental research is needed to confirm these hypotheses and cast out unintended negative consequences. For instance, areas of further exploration could include assessing potential changes in educational quality between in-person and hybrid modes of instruction, testing the effectiveness and sustainability of enrollment increase through career-readiness programs, and understanding the magnitude of advantages and difference in preferences between summer and winter session courses and regular term-time courses. Ultimately, with gradually draining state funding and a recession underway, efforts to keep community colleges growing and flourishing are as important and urgent as ever.

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