

# Twenty Frequently Asked Questions about Community College Baccalaureate Degrees

By Debra D. Bragg & Tim Harmon



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Interest in community college baccalaureate (CCB) degrees is growing in the United States. Currently, one or more community colleges in 24 states confer bachelor's degrees, and several more states are exploring this idea. This document presents 20 frequently asked questions that have arisen during our research with states exploring the adoption of CCB degrees. For each question, we offer related research published in scholarly journals, policy briefs, doctoral dissertations, and media sources. We invite you to click on the following questions to read our responses and find references to deepen your understanding of these degrees.

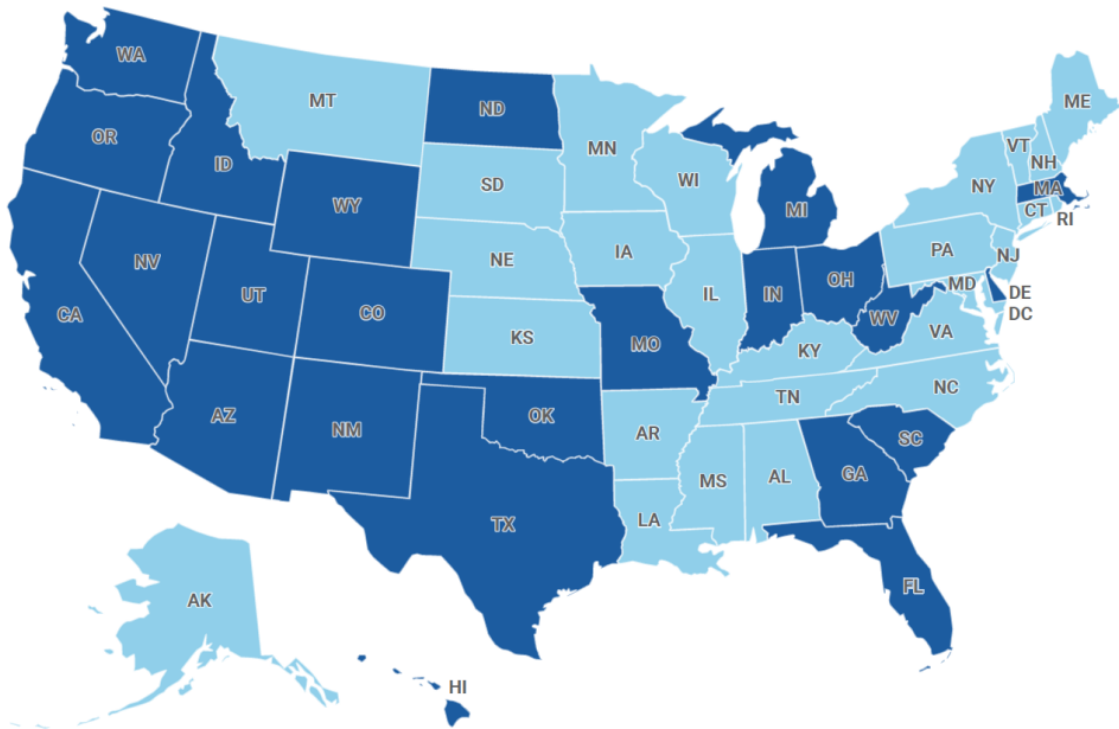
1. [How many states authorize community colleges to confer CCB degrees?](#)
2. [Are community college CCB degree programs growing?](#)
3. [How many CCB degree programs are offered, and what programs are most common?](#)
4. [Why do community colleges offer associates but not bachelor's degrees?](#)
5. [What factors contribute to state adoption of CCB degrees?](#)
6. [How much does geography affect whether students go to college?](#)
7. [How much do CCB degrees cost students?](#)
8. [Do CCB degrees harm universities?](#)
9. [Who enrolls in CCB degree programs?](#)
10. [Do CCB students graduate?](#)
11. [Do CCB graduates make good money?](#)
12. [How do CCB and university baccalaureate graduates compare?](#)
13. [Do CCB degrees prepare students for graduate education?](#)
14. [Can CCB degrees increase access and close equity gaps in baccalaureate attainment?](#)
15. [Can CCB degrees expand career pathway opportunities?](#)
16. [What do high-quality CCB degree programs look like?](#)
17. [What role do employers play in CCB program approval?](#)
18. [How are new CCB programs approved?](#)
19. [How much time does it take to stand up a new CCB program?](#)
20. [What can be learned from states that confer CCB degrees?](#)

# 1

## How many states authorize community colleges to confer bachelor's degrees?

Twenty-four states authorize bachelor's degrees conferred by community colleges that are considered as baccalaureate/associates institutions under [Carnegie's classification system](#) for institutions of higher education (Figure 1). At these community colleges, one or more baccalaureate programs are offered, but these degrees do not exceed 50 percent of the total number of bachelor's and associates degrees conferred.

Figure 1. Current Map of the United States Showing 24 CCB-Conferring States in Dark Blue



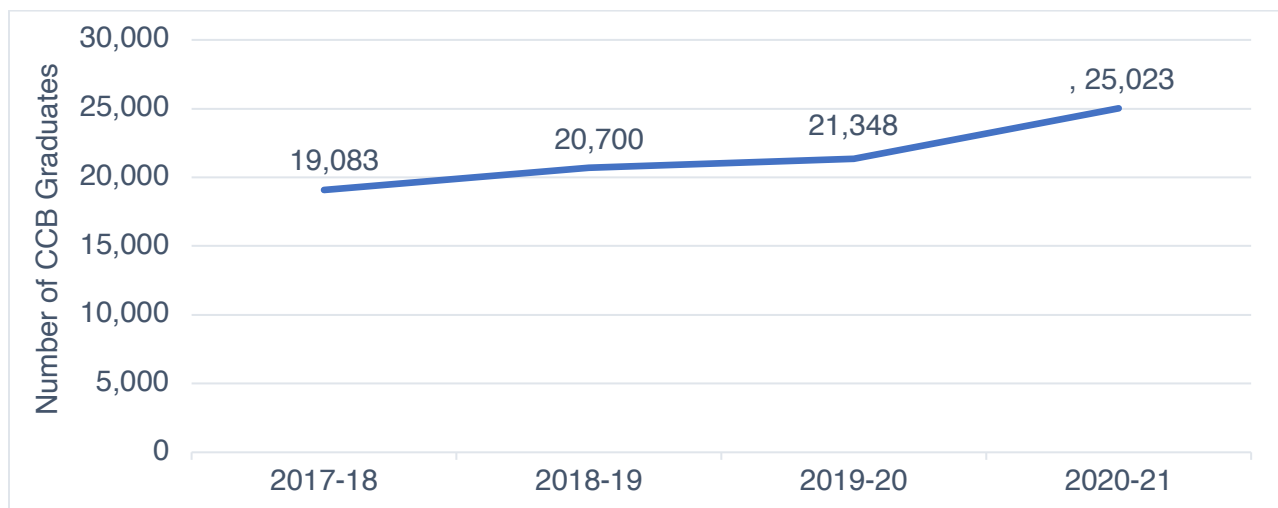
Whereas this FAQ focuses primarily on bachelor's degree conferral by community colleges in the United States, bachelor's degree conferral by higher education institutions similar to community colleges that confer sub-baccalaureate degrees as their highest credential is growing worldwide. To this point, bachelor's degrees are conferred by institutions comparable to U.S. community colleges in Australia, Canada, Finland, Ireland, and New Zealand. Bachelor's degrees are also awarded in institutions offering vocational and technical education in China, England, France, Germany, and the Netherlands.<sup>i</sup> The forms these degrees take vary quite a bit, but a common emphasis is on applied programs of study where graduates fill critical jobs in regional labor markets.<sup>ii</sup>

## 2 Are community college CCB degree programs growing?

Institutions classified by Carnegie as “associates” colleges are named as such because their highest credential is the associates degree. Community college baccalaureate (CCB) institutions have changed their degree-granting authority with a regional accreditor to allow the conferral of bachelor’s degrees. These bachelor’s credentials are referred to generally as CCB degrees.<sup>iii</sup> Arizona, California, Colorado, Florida, Georgia, Michigan, Missouri, Nevada, Ohio, Oregon, South Carolina, Texas, Washington, and Wyoming have passed state laws or implemented administrative rules allowing all public community and/or technical colleges formerly conferring associates degrees as their highest college credential to award baccalaureate degrees. State legislation passed since 2017 has resulted in conferral of CCB degrees in Missouri, Ohio, Oregon, South Carolina, and Wyoming.<sup>iv, v</sup>

Figure 2 shows the steady growth of bachelor’s graduates in community colleges from 2017-18 to 2020-21.<sup>vi</sup> AACC estimates 159 public community colleges and 37 independent two-year colleges confer bachelor’s degrees nationwide, comprising nearly 20 percent of all community and technical colleges in the country. Collectively, they account for about 25,000 bachelor’s conferrals reported to the federal Integrated Postsecondary Education Data System (IPEDS) in 2020-21.<sup>1</sup> This count from AACC includes 11 of 35 [tribal colleges and universities](#) whose primary mission is to deliver high-quality college education that includes preserving and restoring Native languages and cultural traditions.

Figure 2. Number of CCB Graduates from 2017-18 to 2020-21



<sup>1</sup> The AACC *Fast Facts* series is published annually and based on analysis of numerous federal datasets, including the Integrated Postsecondary Education Data System (IPEDS). More of AACC’s research on community colleges in the United States can be found [here](#).

## 3

## How many CCB degree programs are offered, and what programs are most common?

As the number of community colleges conferring bachelor's degrees increases, the types of degrees and programs (or fields) of study are growing as well. A 2021 [national inventory](#) of CCB programs conducted by the Center for Labor at New America (CELNA) and Bragg & Associates found about 560 CCB degree programs across the United States, with about half of these programs conferring bachelor of applied science (BAS) degrees and another one-third conferring bachelor of science (BS) degrees. Most of the remaining degrees are bachelor of science in nursing (BSN).<sup>vii</sup>

An updated national inventory of CCB degree programs by Community College Baccalaureate Association (CCBA) suggests the number of CCB programs is nearing 700, with states with the longest history with CCB degrees having the largest numbers. CCB programs have grown by nearly 100 from November 2021 to January 2024 when the latest national inventory results will be published by CCBA and Bragg & Associates.<sup>2</sup>

Figure 3 below shows the top 12 program areas by the number of CCB programs in the United States. This figure shows business is the area with the most CCB programs when healthcare programs and nursing are presented separately. When added together, healthcare and nursing programs surpass business by a considerable amount in both 2021 and 2023. Importantly, healthcare occupations and nursing have seen worker shortages during and post the COVID-19 pandemic. In addition to complications brought about by this global health crisis, healthcare occupations and nursing are seeing sizeable retirements at a time when credential requirements are increasing. For example, one of the reasons for growth in fields like nursing, dental hygiene, and respiratory care is a shift toward bachelor's and sometimes higher degree requirements to enter the profession.<sup>3</sup> While this shift was slowed somewhat due to acute need for healthcare professionals of all types during the pandemic, the trend toward increased credential requirements to enter these professions is expected to continue into the future.

Education is another program area that has a sizeable number of programs and considerable growth from 2021 to 2023. CCB degree programs are increasing in early childhood education (ECE) and other teacher preparation programs experiencing teacher shortages.<sup>viii</sup> Advocating for CCB degrees in ECE, Rockhold and Andrews recently wrote, "The United States has a pipeline waiting to assist in overcoming this

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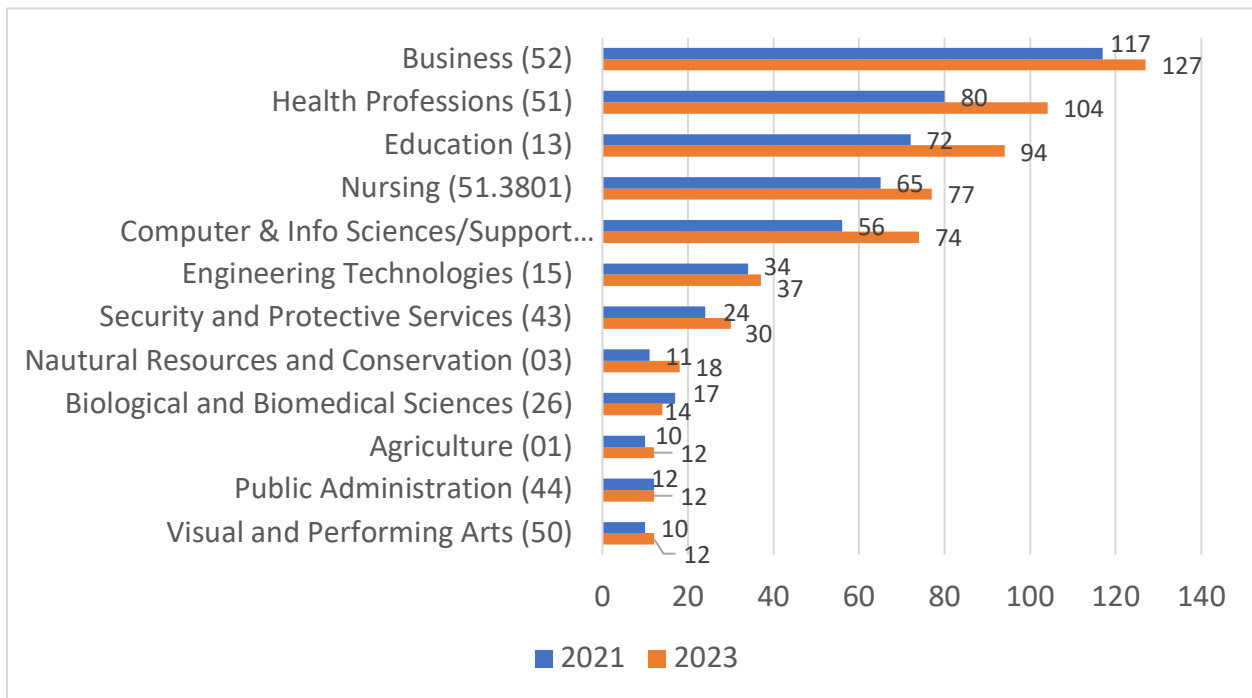
<sup>2</sup> CCBA's national inventory is the only dedicated repository of information on CCB degree programs in the United States. Bachelor's graduates of community colleges are reported to IPEDS, but IPEDS does not capture CCB enrollments. As a result, CCB students/graduates are seen in IPEDS two, three, or more years after CCB programs are implemented, obscuring a complete and accurate picture of CCB enrollment.

<sup>3</sup> Exemplifying this point, a discussion of shifting credential requirements in respiratory care can be found [here](#).

education tsunami. It is the nearly 1,200 community and technical colleges strategically located in all areas of the country.”ix

CCB degree programs are also expanding in science, technology, engineering, and mathematics (STEM), including in information technology, cybersecurity, biomanufacturing, engineering technologies, and other such fields. Added to these program areas is growth in security and protective services and national resources and conservation, possibly reflecting societal concerns with crime and climate change.

Figure 3. Top 12 Program Areas by Number of CCB Degrees Conferred in Fall 2021 and Fall 2023



#### 4 Why do community colleges offer associates but not bachelor's degrees?

When junior colleges were created at the turn of the 20<sup>th</sup> century, advocates envisioned a new form of higher education that would give a growing number of high school graduates an opportunity to attend college. At this time when fewer students finished high school, the idea of expanding access to college was revolutionary. Liberal arts and vocational education were envisioned from the start, with transfer to a university considered an option for a select few students thought capable of mastering bachelor's level studies. "Terminal vocational education" was the preferred option for many, if not most, students.

World War II (WWII) played a major role in expanding junior colleges, increasing the number of colleges offering vocational training to support the war and, after the war, to provide educational opportunities for veterans returning to civilian life. In what some scholars consider the most important policy statement on U.S. higher education, the Truman Commission endorsed junior colleges and introduced the term “community colleges” to reflect their local orientation and potential role in expanding college enrollment. Calling on these colleges to serve communities within regional districts of states, the Commission recommended community colleges provide broad access to student populations historically excluded from postsecondary attendance because of race, gender, age, income, religion, and other defining characteristics. In what has become a prophetic statement, the Commission authors anticipated bachelor’s degrees would need to be conferred by community colleges. They wrote, “Some community colleges may offer a full 4 years of college work,” recognizing associates degrees may not fully address the needs of local communities and their constituents.<sup>x</sup>

In the mid-1960s, policies advocated by the Truman Commission were passed into federal and state laws to form today’s higher education infrastructure. In most states, legislation codified community colleges as the primary provider of postsecondary credentials up to the associates degree, with universities conferring bachelor’s and graduate degrees. This pattern of credentialing has dominated higher education in most states since the 1960s, although curriculum and credentials have changed considerably over time as all types of college credentials have proliferated in ways.<sup>xi</sup> The proliferation of CCB degrees can be seen as a part of this progression.

## **5 What factors contribute to state adoption of CCB degrees?**

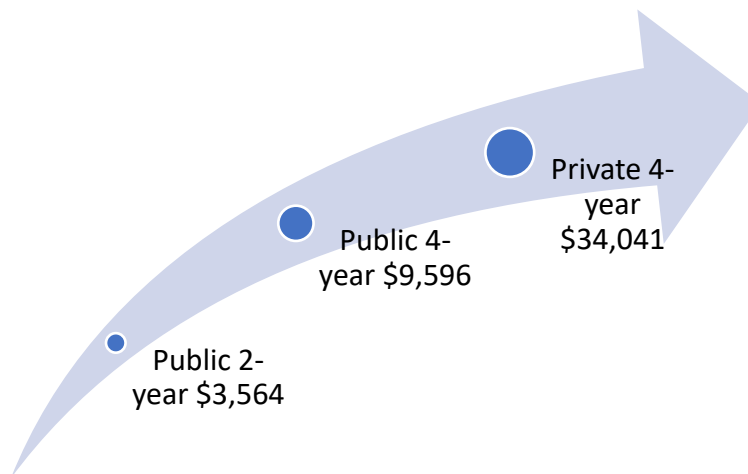
Many factors contribute to state adoption of CCB degrees, including a demonstrated need to close workforce gaps, expand college opportunities for underserved students, create pathways for students for whom transfer is infeasible and unattainable, and reduce college costs. In some states, legislators, policy makers, employers, and college administrators, faculty, staff, students, and graduates build a coalition to support CCB degrees. Using data, these states show how CCB degrees can prepare students for good jobs in communities where students would be unlikely to pursue a baccalaureate without a CCB option.<sup>xii</sup>

Another important factor contributing to state adoption of CCB degrees is the recognition of the potential for these degrees to provide baccalaureates for students completing terminal associate of applied science (AAS) degrees. Typically falling outside state transfer and articulation policy, graduates of AAS programs have limited or sometimes no formal transfer pathway to universities. To be clear, some occupationally-focused programs do provide program-specific agreements between institutions that promote transfer, and when these agreements are working, they should

be honored and advanced. However, when transfer is not a viable option for AAS students, inequities in access to baccalaureate attainment can develop.

The cost of college is another factor in state adoption of CCB degrees since these degrees are typically offered at a [lower cost](#) than university bachelor's degrees. Figure 4 shows the average tuition and fees for full-time students in public 2-year institutions, public 4-year institutions, and private 4-year institutions in the United States for academic year 2021-22. This figure shows the tuition and fees of public 4-year institutions are nearly three times higher than the tuition and fees of public 2-year institutions. The tuition and fees of private 4-year institutions outpace both public 2-year and public 4-year institutions by a large amount, with tuition and fees of private 4-year institutions nearly 10 times higher than public 2-year institutions. The well-documented effect of these tuition and fees is to reduce student college-going, which contributes to socioeconomic and racial inequality in our country.<sup>xiii</sup>

Figure 4. Comparison of National Average Tuition and Fees by Higher Education Sector<sup>xiv</sup>



Adding other costs to college attendance, some potential students find commuting or living away from home to be [cost prohibitive](#). The Education Data Initiative estimates students pay an average of about \$11,000 per year for room and board at public universities in the United States. Adding these expenses to tuition and fees represents a more realistic cost of attendance, or what some researchers call [net price](#). Paying this net price can be especially challenging for students who need to forego working to attend college, forfeiting an estimated \$44,000 median income per year.<sup>xv</sup> Together, these expenses can heavily influence students' decisions about whether to pursue a bachelor's degree, particularly for students who have limited financial resources.

## 6

### How much does geography affect whether students go to college?

The place students live can have a strong pull on whether they ever go to college.<sup>xvi</sup> Except for students whose families can afford to pay for college attendance anywhere



they wish to go, most students attend college within a 50-mile radius of home. In fact, residing in an “education desert”, where no higher education options exist within a reasonable commuting distance, is a good predictor that students will never get a college degree. Distance is an especially important factor for adult learners who seek to attend college, adding [mental and physical stress](#) to their already busy professional and personal lives.

College students can experience what researcher Elizabeth Meza calls an “[opportunity mirage](#),” where not only proximity to college but also other factors can get in the way of college attendance.<sup>xvii</sup> For example, students who worry about cost or getting into selective admission programs may decide college is unrealistic and never attempt to go to college despite one or more institutions being relatively close. Opportunity mirages may explain why community college students who say they want to transfer to get a bachelor’s degree never do so. An interview with researcher [John Fink](#) at the Community College Research Center revealed only about one-third of students who want to transfer actually do so, based on analysis of national data. The implications of this finding is thousands of students do not secure the upper division coursework required to attain a baccalaureate degree.

## 7 How much do CCB degrees cost students?

Keeping the cost of college modest enough to enable students with limited socioeconomic resources to attend is an important goal of many CCB programs. Most states with CCB degree programs intentionally set tuition and fees for CCB degree programs at levels comparable to the tuition costs of other programs in the community college. There are three predominant tuition rate policies for CCB degree programs. First, community colleges set the upper division tuition rate at the same or very similar to lower division tuition, thereby keeping the tuition rate in the last two years consistent with the first two years of community college. This approach is used by states like Florida, Ohio, Oregon, and Wyoming.

A second approach to tuition rate policy is for states to specify that the upper division tuition rate can rise up to 150 percent of the tuition at the lower division level. California put this policy in state statute in 2014, and this policy remains law through [new legislation](#) expanding CCB programming in the state. Following California’s lead, Arizona passed [Senate Bill 1453](#) authorizing bachelor’s degrees conferred by community colleges in 2021.<sup>xviii</sup> Imitating California’s CCB bill, Arizona set upper division tuition rates at up to 150 percent of the lower division tuition rate of community colleges. Since passage of this bill, the Maricopa Community College District in Phoenix moved quickly to launch 11 CCB degree programs starting in fall 2023.

A third approach is used in Washington, where the upper division tuition rate is set at a similar level as the state’s regional public universities, with the idea being students securing the upper division bachelor’s instruction should pay a similar rate regardless of

whether they attend a regional public university or community college. This policy was adopted when the first CCB legislation was passed in Washington in 2005 when tuition rates were lower across the board. Washington is also a state with a community college tuition policy that allows students to move between community colleges without paying in and out of district tuition, giving students a great deal of flexibility of college attendance. Therefore, while the Washington tuition policy reflects a higher level of tuition and fees for CCB degree programs than in other states, the high level of competition among community colleges may help keep tuition rates competitive at both the associates and bachelor's levels.<sup>xix</sup>

## 8 Do CCB degrees harm universities?

An important way to assess whether CCB degrees harm universities is to ask how these degrees influence university enrollment and transfer. While the research examining this issue is modest to date, some studies have examined this question and found little to no negative impact on public universities. Looking at the effect of CCB degree programs on universities in Florida, an early-adopter state, University of Florida researchers found no negative effect on public or private not-for-profit university enrollment or bachelor's degree graduates as a result of community colleges conferring bachelor's degrees in specific regions of the state. However, they did find a negative effect on private for-profit, four-year college enrollment and bachelor's degree graduates from these schools.<sup>xx</sup> This research concluded Hispanic, white, and to a lesser extent Black students pursued CCB enrollment and completion rather than enrollment and completion at private for-profit, four-year colleges, and this substitution was generally positive.

Also studying college enrollment, Jeremy Wright-Kim reported modest increases in community college enrollment when community colleges within a state offer baccalaureate degrees.<sup>xxi</sup> While the difference in enrollment pre- to post-CCB degree adoption tends to be small, the result is statistically significant. This study suggests CCB degree programs may boost overall community college enrollment, which, in turn, helps to increase the number of students who are eligible to pursue more collegiate programming, including transfer and CCB degrees.

It is also important to remember the impact of CCB degree programs on universities is minimized because the preponderance of CCB degree programs enroll AAS students whose programs fall outside state transfer and articulation agreements. These programs also enroll students who choose not to transfer to universities for numerous reasons, particularly geography and cost factors. For many of these AAS students, a pathway to the bachelor's degree does not exist without community college conferral of bachelor's degrees. Credit loss and increased time to degree are serious concerns for students to attempt to transfer with AAS degrees, heightening the possibility of non-completion of bachelor's degrees at the university level.<sup>xxii</sup>

## 9 Who enrolls in CCB degree programs?

Research conducted on CCB students in Florida and Washington<sup>4</sup> shows students' average age is older than typical undergraduate students, averaging 31 or 32 years old depending on the state conferring the CCB degree. These students are also more racially and ethnically diverse than students in similar fields of study, and many CCB students come from families with limited financial resources to pay for college. As a result, many CCB students work full-time to support themselves and their dependents while pursuing a baccalaureate degree.<sup>xxiii</sup> To support these students, community colleges tend to offer flexible curriculum and instructional options, and they supplement academics with proactive student supports. When possible, financial assistance, including Pell grants and other state and institutional aid and scholarships, is made available to CCB students. Recognizing that the cost of tuition and living expenses can impede college attendance, CELNA [reports](#) CCB degrees are typically offered at prices considerably lower than public and private universities.

Research also shows many CCB students continue their studies at the same community college as their associates degree program, reinforcing the importance of bachelor's degree programs within specific regions of the state with little or no access to public universities.<sup>xxiv</sup> When interviewed about their experiences in CCB programs, students and graduates talk about feeling comfortable navigating their bachelor's level education at the community college where they got their associates degree. They share stories of positive personal relationships with faculty, staff, and other students that bolstered their confidence to attain a bachelor's degree. It is also clear from students' stories that prior success at the associates level bolstered their resolve for learning at the upper division level to prepare for careers requiring bachelor's degrees.

## 10 Do CCB students graduate?

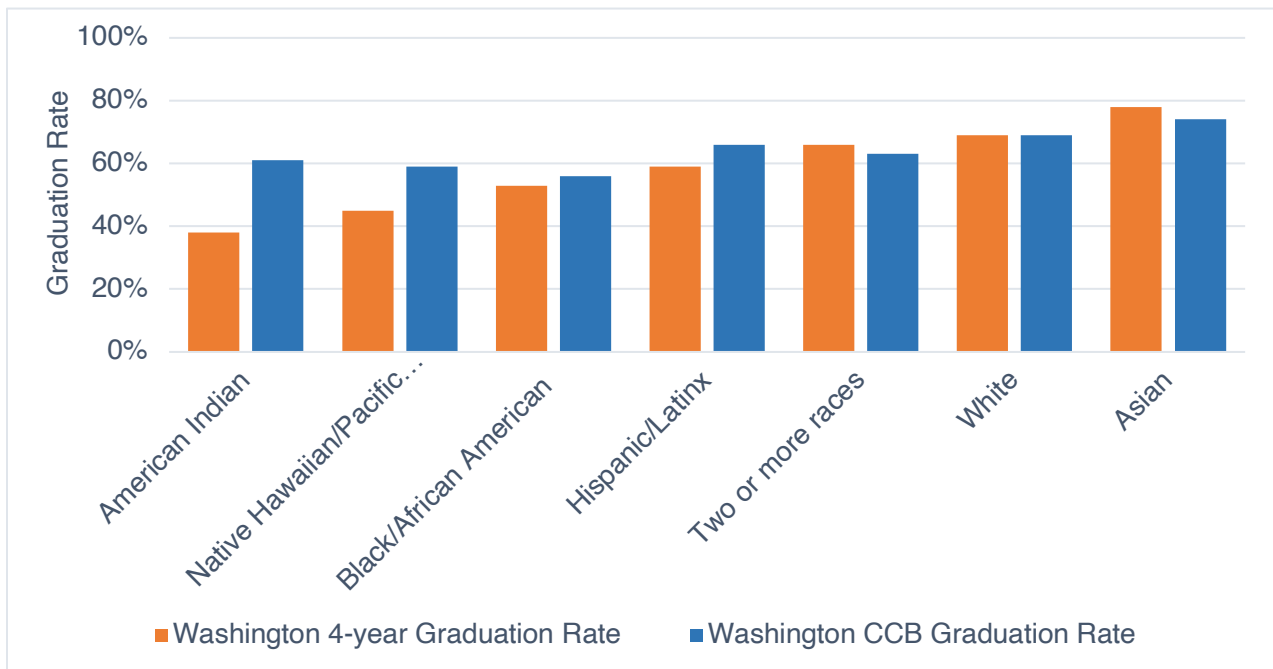
A modest number of studies have been conducted and reported promising results on CCB student graduation rates. To this point, Washington state reports a 68 percent graduation rate, rivaling the university bachelor's graduation rate for community college transfer students at 70 percent.<sup>xxv</sup> These rates are consistent with Washington's postsecondary attainment goal of 70 percent. However, the Washington study did find concerning differences in the CCB and university graduation rates by race. Specific to the CCB, Asian, white, Hispanic/Latinx, American Indian or Alaska Native, and multi-race students graduated at higher rates than Hawaiian Native/Pacific Islander and Black/African American students.

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<sup>4</sup> The extant research on CCB programs in the United States relies heavily on a small number of states that has published results and made data available to researchers. Thus, CCB degree programs and student outcomes in Florida and Washington, and to a lesser extent California, are discussed most extensively in the literature and cited most extensively in this FAQ.

Using data from the [Washington State Achievement Council](#), Figure 6 shows CCB graduation rates vary widely by race, especially at the university level.<sup>xxvi</sup> Specifically, the graduation rates of 38 percent for American Indian/Alaska Native students and 45 percent for Native Hawaiian/Pacific Islander students are far lower than the graduation rates of white and Asian students, at 69 percent and 78 percent, respectively. Compared to the CCB, the graduation rates of American Indian/Alaska Native and Native Hawaiian/Pacific Islander students are much closer to the graduation rates of white and Asian students, although gaps persist here as well. The graduation rates of Black/African American and Hispanic/Latinx students are higher for CCB degrees compared to university degrees, especially for Hispanic/Latinx students at 7 percentage points higher for CCB versus university degrees.

Figure 6. CCB and 4-year Graduation Rates for Racial Groups in Washington



Finally, looking at graduate rates for CCB degree programs in California, a state that has been expanding CCB degree programs substantially, we see graduation rates ranging from 43 percent for American Indian/Alaska Native and 50 percent for Black/African American to 79 percent for Asian and 80 percent for Native Hawaiian/Pacific Islander.<sup>xxvii</sup> Similar to the research findings on graduation rates in Washington, University of California Los Angeles (UCLA) researchers found gaps in graduation outcomes by race and urged community colleges to close these gaps while pointing out California’s CCB initiative may see improved outcomes as CCB programs mature. This observation is based on findings showing “a lot higher” graduation rates

for students three years after initial enrollment in a CCB program, emphasizing the importance of tracking students who enroll in CCB degrees for at least three years.

## 11 Do CCB students make good money?

A recent study of Washington shows positive wage gains for CCB graduates in fields like business and nursing.<sup>xxviii</sup> Additional research on employment and wages in Washington has shown high employment rates for CCB graduates compared to university bachelor's graduates in these fields.<sup>xxix</sup> In fact, within the first-year post-graduation, CCB graduates had higher median annual earnings than university graduates in similar programs of study. Both CCB and university bachelor's graduates showed considerable growth in median annual earnings by three years post-graduation, with CCB healthcare graduates receiving similar or slightly higher median annual earnings than university graduates. In business, median annual earnings of Latinx CCB graduates exceeded university bachelor's graduates at all points in time, from the first quarter to three years post-graduation. It is important to note, however, the favorable wage advantage for CCB graduates relative to university graduates faded three years post-graduation. Reasons for this narrowing of wages between the two groups is unknown, but it may have to do with average CCB graduates being considerably older than university graduates. As university graduates gain experience in employment, they may also gain in wages. Tracking graduates for a longer period is necessary to speak to the longitudinal effects of CCB and university degrees on wage gains.

Research on the economic outcomes of community college students in Florida provides another important perspective on wage gains. A study comparing the wages of associates degree graduates to CCB graduates in similar programs in Florida showed the wages of CCB graduates exceeded associates graduates by approximately \$10,000, on average, four quarters after graduation. The researchers noted, however, the wage premium for bachelor's degree graduates varied by area of study, race/ethnicity, and gender, with male graduates seeing some of the strongest wage increases of all CCB graduates.<sup>xxx</sup>

## 12 How do CCB and university baccalaureate graduates compare?

Research comparing community college to university bachelor's graduates completing similar programs showed CCB graduates tend to be more racially diverse than university graduates, with a higher percentage of African American, Latinx, and multiracial graduates in the CCB group than the university group.<sup>xxxi</sup> This same study also found a sizeable difference in gender representation in CCB programs, with 57 percent of CCB business graduates being women, compared to 46 percent of university bachelor's business graduates. However, in other occupations such as nursing, the gender of the preponderance of students reflected historical trends, with

women dominating the bachelor's enrollment in both community college and university programs.

Qualitative interviews with CCB graduates revealed their preferences for attending a community college to secure their bachelor's degrees were related to convenient access to a nearby community college campus; familiarity with faculty, staff, and fellow students through prior enrollment at the community college; and flexible scheduling to accommodate college, work, and family needs. An important observation made by several CCB graduates was that they did not think they would have gotten a bachelor's degree were it not for their community college's conferral of a CCB degree. The ability to attend college while living at home and keeping their jobs enabled students to achieve a bachelor's degree—something they never thought possible.<sup>xxxii</sup>

### **13 Do CCB degrees prepare students for graduate education?**

According to the Community College Baccalaureate Association (CCBA), the leaders of numerous member institutions report CCB graduates go on to enroll in graduate programs. Qualitative research conducted by researchers affiliated with New America has shown that CCB graduates have matriculated to graduate school in business, education, healthcare, and other fields.

A national survey of advisors working in institutions offering CCB degrees shows their intentional efforts to encourage and support students who are considering graduate education.<sup>xxxiii</sup> Because many CCB students are first generation college goers, the idea of pursuing graduate education is not something they have considered or even know exists. Therefore, academic advisors assume the responsibility of informing CCB students about what graduate school is, how to access it, and how they may benefit from further education. This study also documented how some academic advisors facilitate graduate application development, including connecting CCB students to resources and facilitating their networking and communications with graduate faculty. This study also revealed some CCB-conferring institutions have developed formal partnerships, including memorandum of understanding agreements, with universities to offer graduate pathways in particular fields of study such as business and nursing. Master's in Business Administration (MBA) programs were an area of high interest among CCB graduates in this study. However, countering these positive findings, the researchers found potential biases in accepting CCB students by university graduate admissions committees who assume these students are less well prepared than their counterparts completing similar university programs. The researchers recommended more qualitative studies of CCB graduates to understand their experiences with graduate education and the implications for improving graduate pathway opportunities.

More research is needed to corroborate this early evidence on CCB student access to graduate education, but what is evident in the literature so far is a sincere commitment to creating graduate pathways with academic advisors serving in key roles to support

CCB graduates who desire to pursue advanced education. It is not the case that CCB degrees are viewed as terminal education without educational advancement opportunities. A more common goal is to create bachelor's degrees that do not end in terminal degrees the way AAS degrees have tended to do historically.<sup>xxxiv</sup>

14

## Can CCB degrees increase access and close equity gaps in baccalaureate attainment?

The broad access mission of community colleges was encouraged by the Truman Commission. Emphasizing access for all, community colleges enroll a highly diverse student population in terms of students' race, income, first-generation college status, financial independence, and age.<sup>xxxv</sup> Access to higher education for these student populations is critical to the social mobility of these groups, as well as to the viability of regional economies and communities within states.

Detailing strengths and opportunities for improvement in the higher education system, many state plans acknowledge the need to improve access for racially minoritized, lower-income, first-generation, and other populations, including recognizing the decline in Black student enrollment over more than a decade, as is the case in Illinois.<sup>xxxvi</sup> This state's plan calls for improving bachelor's attainment to create more equitable opportunities for all students to garner living-wage earnings and economic security.<sup>xxxvii</sup> Without improvements for racially minoritized and other underserved populations, the state is likely to see continued or even greater decline, which has led to state deliberation on CCB degrees to address growing [inequitable achievement gaps](#).

Speaking to the importance of CCB degrees in addressing inequities in higher education, a recent [report](#) from New America and discussed in *Inside Higher Education* considered the impact of CCB degrees on closing equity gaps in baccalaureate attainment.<sup>xxxviii</sup> Elizabeth Meza and Ivy Love, who authored this report for New America, summarized the growing body of research on CCB degrees in the most expansive CCB-conferring states in the country, Florida and Washington, and they concluded historically underserved student groups may experience positive outcomes from participation in CCB programs. They observed CCB programs offer “promising access points” to baccalaureate degrees for students of color. They also synthesized results of a study by Elizabeth Meza and Debra Bragg that compared CCB graduates to university graduates in Washington and found favorable employment and wage outcomes for CCB graduates compared to university bachelor's graduates upon exiting college.<sup>xxxix</sup> Follow-up data on employment and wage outcomes over three subsequent years show comparable outcomes for the two groups, with both groups experiencing employment gains. This study suggested CCB degrees are contributing to social mobility for underserved student populations, leading Meza and Love to conclude that CCB degrees are “not tracking students away from a viable future but expanding opportunities for students who may not have otherwise pursued a bachelor's degree.” More research on the impact of CCB degrees on the education and employment

outcomes of historically underserved populations is needed as these programs continue to spread and grow across the country.

## 15 Can CCB degrees expand career pathway opportunities?

The commitment to build clearly sequenced and attainable career pathways leading to high-value credentials is a high priority for career pathways. Illustrating this point, 15 years ago the State Directors of Career Technical Education Consortium produced a statement emphasizing the importance of postsecondary education leading to valued credentials, including college degrees and industry-recognized credentials. Emphasizing the importance of career pathways for adult learners, the Consortium stated,

Adult career pathways prepare unemployed, underemployed and dislocated workers for jobs by offering flexible services provided by education institutions, community-based organizations, government agencies and business and industry. Adult career pathways lead individuals to an associate degree, *bachelor's degree* [emphasis added], an industry recognized credential or certificate, and ultimately, employment within a specific occupational industry.

This definition leaves no doubt that bachelor's degrees are important to career pathways, including pathways for adult learners.

Nationwide, many CCB degree programs align with career pathways that offer associates degrees and other sub-baccalaureate credentials, including associates degrees and short-term credentials. These pathways feature the same critical elements of career pathways that are emphasized in many states, including states like Washington that has scaled up CCB degree programs as well as originated the [Integrated Basic Education Skills Training](#) model that is integrated into many adult career pathways across the U.S. Other elements of career pathways parallel high-quality CCB programs, according to the CCBA's recent thought paper presenting elements of CCB degree programs, including equitable access and outcomes, flexibility, student services, regional significance and labor market alignment, and evidence-based programs and practices.<sup>x1</sup>

A national [model](#) for ensuring quality in career pathways was developed by the Center for Law and Social Policy (CLASP). Exemplary features include embedding career pathways across workforce development, adult and postsecondary education, and public benefit programs. Including CCB degrees to career pathways, when pathways have been envisioned to extend to include collegiate degrees, would seem to be a logical next step for the country.



## 16 What do high-quality CCB degree programs look like?

Community College Baccalaureate Association (CCBA) has made a multi-year commitment to leading a national dialogue on what quality means in CCB degree programs. Through a grant from the [ECMC Foundation](#), CCBA produced an e-book presenting [20 Promising Practices](#) associated with high-performing CCB degree programs in June 2022. The ECMC grant was renewed in 2023, with a two-year commitment to publishing more promising practices.

The 20 Promising Practices e-book features the following six themes:

- Leadership and organizational support
- Access, equity, and outcomes
- Pathway design
- Curriculum and instruction
- Student supports
- Employer partnerships

Also, in early 2023, [Ascendium](#) Education Group funded CCBA to explore a quality framework for CCB degree programs, and this grant is proceeding under the leadership of the CCBA leadership team and a group of professionals experienced in implementing and leading CCB degree programs. Two new papers addressing CCB degree program quality were released by CCBA in fall 2023. These summarize the literature of CCB degree program quality and offer recommendations for key elements of a quality framework for CCB degrees. The [first paper](#) synthesizes and organizes the research literature into four areas: 1) design elements and components of CCB degrees, 2) industry needs and labor market alignments of CCB programs, 3) equitable student access and outcomes associated with CCB degree programs, and 4) criteria for states and systems to use in approving CCB programs.<sup>xii</sup> The [second paper](#) discusses key elements of effective programming for adult learners. We can see strong parallels in the CCBA “elements of quality” framework and lessons from career pathways for adult learners from rigorous evaluations. These findings help to reinforce the alignment of CCB degree programs with career pathway models, especially for adult learners.<sup>xiii</sup>

## 17 What role do employers play in CCB program approval?

Like many programs focusing on preparing graduates for the workforce, employers contribute to decisions about CCB curriculum offerings, program implementation, and program evaluation. Their roles include serving on advisory committees; advising on and making equipment, hardware, and software donations; providing work-based learning for students; and hiring graduates. Some employers also play an active role in formal instruction and mentoring students, all functions as important to bachelor’s programs as they are to certificate and associates programs.

Ensuring that CCB programs are informed by regional employers, many states require applications for new CCB programs to speak directly to the role employers play in advising college leaders (e.g., administration, faculty, staff, trustees, and others) on critical decisions about new CCB programming. [Ohio's program approval process](#) stands out as a good example of a state emphasizing employer involvement in CCB program proposal and implementation processes, including requiring at least one agreement with a regional business or industry to train students in the identified field of study and employ students upon successful program completion. The names of regional business/industry partners must be provided in the community college's CCB application to the state, along with evidence of agreements to train students and employ program graduates. Letters of support from specific business/industry partners must include details about their current and future employment needs and level of involvement with the proposed CCB program in curriculum development, advisory boards, and work-based learning. These letters must also estimate how many employees the business/industry partner expects to hire, reinforcing the need for CCB graduates.

## 18 How are new CCB programs approved?

Once state laws authorizing CCB degrees pass, formal program approval policies and processes are developed, with standardized requirements for offering new CCB degree programs. Typically, community colleges submit an initial program application to a local board of trustees and state agency to show supply and demand results for the proposed program. This analysis of labor market information (LMI) typically must show strong demand for job openings in the region where the baccalaureate degree will be offered. These proposals also typically require estimates of student enrollment in the proposed program relative to other similar programs in the same region of the state.<sup>xliii</sup> If community colleges are given a go-ahead after this initial step, they are invited to submit a full proposal describing all aspects of the program, including goals, curriculum, student populations (including how underserved students will access and complete), and graduates' prospective educational and employment outcomes. Some program applications also require input from outside experts on the viability of the program and potential impact on the regional workforce and communities.

Some CCB degree applications go further in terms of requiring proposed CCB degree programs to explain how they will address college or state equity goals. A recent [Florida statute \(1007.33\)](#) emphasizes the role postsecondary education should play in "improving the quality of life and economic well-being" of the state's residents, particularly "place-bound, nontraditional students." This law clearly stipulates that "the intent of the Legislature [is] to further expand access to baccalaureate degree programs through the use of Florida College System institutions." Similarly, the approval process for [new CCB degrees in Oregon](#) requires colleges to explain how these programs will address the state's equity and diversity goals.

CCB program approval processes often also require applicants to address whether a proposed CCB degree program may be duplicative of other existing bachelor's programs offered by universities in the same geographic region. Consultation may be advised or required from both two- and four-year institutions, with timelines from 30 to 90 days for this review process to be completed. CCB-authorizing rules typically do not grant refusal authority to other institutions, but they do encourage communications to resolve concerns before formal deliberations begin. However, these concerns tend to lessen over time as CCB degree programs become more commonplace.<sup>xliv</sup> Shared understanding of CCB degrees and how they can add, rather than detract from, a state's baccalaureate landscape contributes to wider acceptance of these degrees. A good example is Washington's recent adoption of computer science BS degrees after 15 years of limiting CCBs to the BAS. In 2021, the BS degree was adopted and subsequently supported by a [\\$3 million award from Amazon](#) to help these computer science BS degrees meet this important regional workforce need.

## 19 How much time does it take to stand up a new CCB program?

After a state passes CCB-authorizing legislation, it typically takes 1-2 years (sometimes more) to design and implement a new CCB program. If the college needs to secure regional accreditation, the timeline for implementation is typically longer than when regional accreditation has already been achieved through earlier adoption of CCB programs. In addition, the time that each state takes to approve new CCB programs can vary. For example, California established in state statute that the California Community College Chancellor's Office would approve CCB programs twice per year, with up to 15 programs approved at each interval. This staging of approvals affects when program applications are submitted and when newly approved programs can start. However, this format is not typical; most others review CCB program applications on a more frequent or even rolling basis, although these states may limit submissions when resources to review and approve program applications grow thin.

Importantly, regional accreditors such as the Higher Learning Commission (HLC), Northwest Commission on Colleges and Universities (NWCCU), and Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) have extensive experience with CCB degrees. Learning by colleges within and across these regional accrediting bodies may help advance program adoption in conferring colleges and expand legislation to states that are not conferring CCB degrees. A resource created by the HLC on CCB degree conferral that may be useful to learn about how institutions implement these programs can be found [here](#).

## 20 What can be learned from states that confer CCB degrees?

Whereas every higher education system is unique, states can learn about CCB degrees by studying how other states authorize and implement these degrees. States like

Florida, Georgia, Nevada, and Washington have implemented CCB degree programs for a long time. In fact, their experience is so extensive that these states do not consider CCB degrees a rarity. States that have more recently implemented CCB degrees have used a variety of legislative and administrative approaches for their implementation. First authorizing CCB degrees in 2018, Ohio has scaled up CCB degrees relatively quickly compared to other states in the Midwest and elsewhere in the United States, with 11 of the state's 23 community colleges now offering one or more CCB degrees. A total of 20 CCB degrees are approved or already operate in the state. In addition, a new law authorizing BSN degrees was added in 2021, with six nursing programs approved since then.

Arizona and California are displaying relatively rapid adoption of CCB degree programs in a wide array of industry sectors, including business, healthcare, education, STEM, and public services. Both states offer CCB degrees in the form of BS degrees, and Arizona also authorizes BSN degrees. Recent passage of a BSN bill in Oregon is currently going into effect, with seven community colleges working collaboratively to design and share common curriculum to ensure qualified faculty no matter where the program is offered. Similar efforts are being pursued by a consortium of community and technical colleges in Washington, where the state's new law authorizing BS degree conferral in community college computer science programs is taking effect.

Many more opportunities exist for higher education institutional and policy leaders to learn about CCB degrees. Hopefully the ideas shared here provide a baseline of information that can assist policymakers as they consider options for adopting CCB degrees.

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## Endnotes

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- <sup>i</sup> Skolnik, M. (2022). A comparative perspective on the community college baccalaureate focusing on the scale of the degree. *Community College Journal of Research and Practice*. <https://doi.org/10.1080/10668926.2022.2106601>
- <sup>ii</sup> Bathmaker, A. M. (2017). Post-secondary education and training, new vocationalism and hybrid pathways and questions of equity, inequality and social mobility: Introduction to the special issue. *Journal of Vocational Education and Training*, 30(1), 1-9. <http://dx.doi.org/10.1080/13636820.2017.1304680>
- <sup>iii</sup> Floyd, D. L., & Skolnik, M. L. (2019). The community college baccalaureate movement: Evolutionary and revolutionary. In T. U. O'Banion (Ed.), 13 ideas that are transforming the community college world. Rowman & Littlefield (pp. 103-126).
- <sup>iv</sup> Fulton, M. (2020). Community college bachelor's degrees: An update on state activity and policy [Policy brief]. Retrieved from <https://files.eric.ed.gov/fulltext/ED603465.pdf>
- <sup>v</sup> Soler, M. C. (2019, November). Updating the national landscape: State adoption of community college baccalaureate degrees (New Baccalaureate Series, Data Note 3). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from <https://www.washington.edu/ccri/2019/11/18/datanote3-ccb/>
- <sup>vi</sup> American Association of Community Colleges. (2023). *Fast facts 2023*. [Infographic]. Aacc.nche.edu. [https://www.aacc.nche.edu/wp-content/uploads/2023/03/AACC2023\\_FastFacts.pdf](https://www.aacc.nche.edu/wp-content/uploads/2023/03/AACC2023_FastFacts.pdf)
- <sup>vii</sup> Love, I., Bragg, D., & Harmon, T. (2021). *Mapping the community college baccalaureate*. New America. <https://www.newamerica.org/education-policy/events/online-mapping-the-community-college-baccalaureate/>
- <sup>viii</sup> Andrews, H., & Marzano, W. (2022). Leverage community colleges to address the teacher shortage. (Sketching a New Conservative Education Agenda). AEI. Retrieved from <https://www.aei.org/research-products/report/leverage-community-colleges-to-address-the-teacher-shortage/>
- <sup>ix</sup> Andrews, H., & Rockhold, G. (2023). Teacher shortage crisis! A tsunami has landed. <https://www.highereducationdigest.com/teacher-shortage-crisis-a-tsunami-has-landed/>
- <sup>x</sup> Wright-Kim, J. (2021). An update on the impacts of the community college baccalaureate. *New Directions for Community Colleges, Volume 197*. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/cc.20497>
- <sup>xi</sup> Van Noy, M., & Gaston, P. (2022). *Credentials: Understand the problems. Identify the opportunities. Create the solutions*. Routledge. <https://doi.org/10.4324/9781003443865>
- <sup>xii</sup> Floyd, D. L., & Skolnik, M. L. (2019). The community college baccalaureate movement: Evolutionary and revolutionary. In T. U. O'Banion (Ed.), 13 ideas that are transforming the community college world (pp. 103–126). Rowman & Littlefield.
- <sup>xiii</sup> Michell, M., Leachman, M., & Saenz, M. (2019, October 24). State higher education funding cuts to have pushed costs to students, worsened inequality. Center on Budget and Policy Priorities. <https://www.cbpp.org/research/state-budget-and-tax/state-higher-education-funding-cuts-have-pushed-costs-to-students>
- <sup>xiv</sup> National Center for Education Statistics. (2022). Average undergraduate tuition, fees, room, and board charges for full-time students in degree-granting postsecondary institutions, by control and level of institution and state: Academic years 2020-2021 and 2021-2022 (Table 330.20). [https://nces.ed.gov/programs/digest/d22/tables/dt22\\_330.20.asp](https://nces.ed.gov/programs/digest/d22/tables/dt22_330.20.asp)

- 
- <sup>xv</sup> Hanson, M. (2023, Sept. 6). Average cost of college & tuition. EducationData.org. <https://educationdata.org/average-cost-of-college>
- <sup>xvi</sup> Hillman, N. (2019). Place matters: A closer look at education deserts. (AcadeMIX Series.) Third Way. <https://www.thirdway.org/report/place-matters-a-closer-look-at-education-deserts>
- <sup>xvii</sup> Meza, E. A. (2021). Overcoming the opportunity mirage with community college baccalaureate degrees. <https://www.newamerica.org/education-policy/edcentral/overcoming-the-opportunity-mirage-with-community-college-baccalaureate-degrees/>
- <sup>xviii</sup> Lutz, M. (2021). Four-year degrees at two-year colleges: Arizona expands access to higher education. *Arizona State Law Journal*. <https://arizonastatelawjournal.org/2021/11/15/four-year-degrees-at-two-year-colleges-arizona-expands-access-to-higher-education/>
- <sup>xix</sup> Love, I., & Palmer, I. (2022). Building financial structures to support community college bachelor's degrees. [Policy brief]. Retrieved from <https://www.newamerica.org/education-policy/briefs/community-college-baccalaureate-financing/>
- <sup>xx</sup> Kramer II, D., Ortagus, J., & Donovan, J. (2021). Competing for bachelor's degrees: Are community colleges cutting into the market share of four-year institutions? *American Educational Research Journal*, 58(2), pp 343-385. <https://journals.sagepub.com/doi/epub/10.3102/0002831220946309>
- <sup>xxi</sup> Wright-Kim, J. (2022). Bachelor's degrees can boost community college enrollment. <https://www.bestcolleges.com/news/bachelors-degrees-can-boost-community-college-enrollment/>
- <sup>xxii</sup> D'Amico, M., Chapman, L. M., & Robertson, S. (2021). Associate in applied science transfer and articulation: An issue of access and equity. *Community College Journal of Research and Practice*, 45(5), 378-383, DOI: 10.1080/10668926.2020.1741477
- <sup>xxiii</sup> Meza, E., A., & Love, I. (2022). Community college baccalaureates as an equity strategy: Student access and outcomes data. [Policy brief]. Newamerica.org. Retrieved from <https://www.newamerica.org/education-policy/briefs/community-college-baccalaureate-programs-as-an-equity-strategy-student-access-and-outcomes-data/>
- <sup>xxiv</sup> Wetzstein, L., Meza, E., & Bragg, D. (2022). Evaluating the student experience at community college baccalaureate programs. <https://www.newamerica.org/education-policy/briefs/evaluating-the-student-experience-at-community-college-baccalaureate-programs/>
- <sup>xxv</sup> Meza, E. A. & Bragg, D. D. (2020, February). Community college baccalaureate degree completion in Washington (New Baccalaureate Series, Data Note 4). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from [https://www.uw.edu/ccri/newba\\_dn4/](https://www.uw.edu/ccri/newba_dn4/)
- <sup>xxvi</sup> Kwayke, I., Kibort-Crocker, E., & Pasion, S. (2020). Washington equity report snapshot. <https://wsac.wa.gov/sites/default/files/2020-10-20-Snapshot-Equity-Landscape.pdf>
- <sup>xxvii</sup> Rios-Aguilar, C., Cuéllar, M., Bañuelos, N., Lyke, A., Vo, D. (2023). The potential of California's community college baccalaureate for closing racial equity gaps. Los Angeles, CA: The Civil Rights Project/Proyecto Derechos Civiles, UCLA. Retrieved from <https://civilrightsproject.ucla.edu/research/college-access/underrepresented-students/the-potential-of-californias-community-college-baccalaureate-for-closing-racial-equity-gaps/CCB-CRP-FINAL-REPORT-033023-modified-post-release.pdf>
- <sup>xxviii</sup> Meza, E. A., & Bragg, D. D. (2022). Scaling up community college baccalaureates in Washington State: Labor market outcomes and equity implications for higher education. *Education Policy Analysis Archives*, 30, (140). <https://doi.org/10.14507/epaa.30.6834>
- <sup>xxix</sup> Meza, E., A., & Bragg, D. D. (2020). Comparison of the employment and earnings outcomes of Washington community college baccalaureate graduates and university graduates. <https://www.washington.edu/ccri/newba-dn8/>

- 
- xxx Love, I. (2020). The baccalaureate and beyond: An analysis of demographics and labor market outcomes of Florida community college baccalaureate graduates. *New America*. Retrieved from <https://files.eric.ed.gov/fulltext/ED609160.pdf>
- xxxi Blume, G. (2020, February). How do students earning CCB degrees compare to their peers at public universities in Washington State? (New Baccalaureate Series, Data Note 5). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from [https://www.uw.edu/ccri/newba\\_dn5/](https://www.uw.edu/ccri/newba_dn5/)
- xxxii Wetzstein, L., Meza, E. A., & Bragg, D. D. (2022). Evaluating the student experience at community college baccalaureate programs. [Policy brief]. *Newamerica.org* <https://www.newamerica.org/education-policy/briefs/evaluating-the-student-experience-at-community-college-baccalaureate-programs/>
- xxxiii Martinez, E., & Eleu, C. (2020). From community college to graduate school: Exploring the role of academic advisors in promoting graduate education at baccalaureate degree-granting institutions. *Journal of Higher Education*, 91(7), 1003-1027. <https://doi.org/10.1080/00221546.2020.1732176>
- xxxiv Wright-Kim, J. (2021). An update on the impacts of the community college baccalaureate. *New Directions for Community Colleges, Volume 197*. <https://onlinelibrary.wiley.com/doi/epdf/10.1002/cc.20497>
- xxxv Community College Research Center. (2021). An introduction to community colleges and their students. <https://ccrc.tc.columbia.edu/media/k2/attachments/introduction-community-colleges-students.pdf>
- xxxvi Partnership for College Completion. (2019). Priced out: Black students. [https://partnershipfcc.org/wp-content/uploads/2021/11/PCC\\_PricedOut\\_BlackStudents.pdf](https://partnershipfcc.org/wp-content/uploads/2021/11/PCC_PricedOut_BlackStudents.pdf)
- xxxvii Carnevale, A. P., Cheah, B., & Wenninger, E., (2021). *The college payoff: More education doesn't always mean more earnings*. Washington, DC: Georgetown University Center on Education and the Workforce, 2021. [https://cew.georgetown.edu/wp-content/uploads/cew-college\\_payoff\\_2021-fr.pdf](https://cew.georgetown.edu/wp-content/uploads/cew-college_payoff_2021-fr.pdf)
- xxxviii Adams, J. (2023, April 6). *Narrowing the racial equity gap in bachelor's degrees*. Inside Higher Ed. [https://www.insidehighered.com/news/2023/04/06/report-community-college-baccalaureate-can-drive-racial-equity?utm\\_source=Inside+Higher+Ed&utm\\_campaign=7446f557e9-DNU\\_2021\\_COPY\\_02&utm\\_medium=email&utm\\_term=0\\_1fcbc04421-7446f557e9-198589309&mc\\_cid=7446f557e9&mc\\_eid=6c13e37d0f](https://www.insidehighered.com/news/2023/04/06/report-community-college-baccalaureate-can-drive-racial-equity?utm_source=Inside+Higher+Ed&utm_campaign=7446f557e9-DNU_2021_COPY_02&utm_medium=email&utm_term=0_1fcbc04421-7446f557e9-198589309&mc_cid=7446f557e9&mc_eid=6c13e37d0f)
- xxxix Meza, E. A., & Bragg, D. D. (2022). Scaling up community college baccalaureates in Washington State: Labor market outcomes and equity implications for higher education. *Education Policy Analysis Archives*, 30, (140). <https://doi.org/10.14507/epaa.30.6834>
- xl Pawlicki, C. R. (2023). Elements of quality for community college bachelor's degree programs: Thought paper. Troy Street Professional Services and Community College Baccalaureate Association (CCBA). <https://www.accbd.org/wp-content/uploads/2024/01/CCBA-Thought-Paper-publication.pdf>
- xli Pawlicki, C. R. (2023). CCBA measures of quality literature review. Troy Street Professional Services and Community College Baccalaureate Association (CCBA). <https://www.accbd.org/wp-content/uploads/2023/10/CCBA-Measures-of-Quality-Literature-Review.pdf>
- xlii Bragg, D. D., Endel, B., Anderson, N., Soricone, L., & Acevedo, E. (2019). What works for adult learners. *Jobs for the Future*. <https://www.jff.org/idea/what-works-adult-learners-lessons-career-pathway-evaluations/>
- xliii Bragg, D. D., & Harmon, T. (2022). Making the case for community college baccalaureates: What supply and demand analysis reveals in two Midwest states. [Policy brief]. *Newamerica.org*



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<https://www.newamerica.org/education-policy/briefs/making-the-case-for-community-college-baccalaureates-what-supply-and-demand-analysis-reveals-in-two-midwest-states/>

- <sup>xliv</sup> Bragg, D. D., Meza, E. A., & Soler, M. C. (2022). Community colleges and broad access colleges/universities as antagonists and allies in conferring baccalaureate degrees. In G. Crisp, K. R. McClure, and C. M. Orphan (Eds.). *Unlocking opportunity through broadly accessible institutions*. Routledge. <https://www.routledge.com/Unlocking-Opportunity-through-Broadly-Accessible-Institutions/Crisp-McClure-Orphan/p/book/9780367564223>