RESEARCH REPORT

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TWO-YEAR COLLEGES MUST BECOME SINGULARLY-FOCUSED ON GRADUATING STUDENTS WITH DEGREES THAT COMBINE ACADEMICS AND SKILLS: THE ECONOMIC AND SOCIAL REASONS BEHIND A TWO-YEAR DEGREE AND GREEN SHOOTS THAT OFFER EVIDENCE FOR HOW TO GRADUATE MORE STUDENTS WITH ONE

Colleges are re-designing their program offerings to complete more students. An often-stated axiom for how two-year colleges can complete more students is to build backwards from success. However, not every credential we have counted as a success has proven equal to our goal for helping students become successful. We need to become singularly focused on degrees that combine strong academics and relevant skills and knowledge. This requires our separate missions to come together in ways they never have. We present green shoots as early signs for this starting to grow and we offer evidence for why degrees have never been so important if we want to enroll and retain more students.

About this report

Overall, too few students are completing two-year college. Those who complete are still starting off unequally. Women and people of color often complete with lesser professional-technical credentials, or leave with no credential at all. Students who earn certificates, too often start work behind in earnings and fall even further behind throughout their working lives never approaching the growth in lifetime earnings achieved with a professional-technical degree.

About one-third of students earning academic degrees do not transfer, but rather go directly to work and find their degree has little value in the labor market. Research suggests they could have benefitted from having marketable skills added to their degree.

In this brief, we review our own prior research for two-year college students' post-college labor market outcomes. We present evidence from our research that two-year college professional technical degrees offer the highest immediate earnings and strongest growth over time. Many graduates who go to work in lower-pay sectors like education and health and human services will need even more than the two-year degree. They will need a bachelor's degree. The Applied Baccalaureate (AB) was started about ten-years ago. We discuss its growing importance. We also pay attention to the two-year academic transfer degree. Our focus is employment outcomes for those graduates who earn an academic transfer degree, but do not transfer. The evidence we offer should serve as green shoots for how a singularly-focused mission aimed at degree attainment can happen.

COMMUNITY AND TECHNICAL COLLEGES
Washington State Board

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Guided Pathways, which started in Washington in 2016, is the context for this brief. Under the Guided Pathways framework, colleges re-design their degrees and offerings into structured pathways that align with students' goals for further education and careers. Colleges support incoming students in choosing a program of study and developing an academic plan for a recommended program map created by faculty and advisors. Guided Pathways simplifies student decision-making and allows colleges to provide predictable schedules and frequent feedback so students can complete degrees efficiently. These actions should be implemented at scale to increase completions, reduce time to degree, and close equity gaps.

Economists studying earnings have found that starting earnings are critical to the growing disparities in mobility and lifelong earnings that low-wage workers experience. Low early career earnings signal lower earnings later as well.

We start by reviewing our findings in a 2015 report for employment outcomes for 90,000 students who left workforce programs between 2009 and 2013. In a particularly compelling finding for those students who began with at most a high school education, we found substantial differences in earnings gains associated with the level of credential they earned starting right after college and growing over time. Professional-technical degrees have the highest labor market outcomes over time, short certificates the lowest.

Next, we review a set of issues raised in a series of reports written between 2016 and 2020 for a baseline prior to Guided Pathways. The core of our analysis is 131,000 first-time college (FTIC) students who started college between 2010 and 2014. All students were tracked for four years after they started to their status afterwards and then to determine if they transferred or if not for their first-year post college employment. We exclude dual enrollments in these reports, although we discuss them later in this brief.

Sixteen percent of these baseline FTIC students earned either an academic (11 percent) or professional-technical (five percent) two-year degree. Another five percent earned a professional-technical certificate as their highest award in the four-year period. The vast majority, nearly two-thirds, left college with no award. Most of those left within the first year after starting. The reports are separated according to the colleges' missions for academic transfer, professional-technical education, and Basic Education for Adults (BEdA) to strengthen pathways for their students.

We highlight important issues that we raised in these reports. First, we drill down further than our 2015 report and provide employment outcomes disaggregated by program clearly displaying stratification in post-college earnings by gender. Large gender disparities continue in professional-technical completions and underrepresented groups continue to show lower earnings after college.

Next, we review the degree completions outcomes for credential "stacking" or "laddering," a policy that most colleges have talked about for years and will typically illustrate in program maps. We compare earning a short certificate to completing college math in the first year. Completing first year college math is a stronger predictor of degree completion than a short certificate. The latter is three times as likely to lead to degree completion within four years. We interject a finding from our report on BEdA and IBEST that had an early promising finding for helping more students to successfully complete college math.

We spend time reviewing an external paper that provides a description for how students consider and choose a major with important implications for advising and program groupings. The paper describes differences that different groups of students may have in how they group majors for consideration. We discuss this paper in view of an earlier paper we have written on Nursing. This paper described the huge attrition that occurs from application to acceptance and the challenges in advising students. We discuss

another report we have written that described the role of Psychology 100 in degree completion and consider how it could play a role in developing meta-majors and advising students how to select a final major.

To this point we have been discussing professional-technical programs. Interestingly, we highlight academics milestones and courses to increase degree attainment. However, next we look at a finding in our report on the Academic Transfer Degree (DTA). Specifically, we look at employment outcomes for students who earn the degree, but do not transfer. Our findings show that the two-year liberal arts degree alone has poor labor market value. We present evidence from an external report for how this can be improved by adding professional-technical electives from business, or information technology for example.

We end with a discussion of two more of our reports. In a report that described dual enrollment, we confirm race, class, and gender disparities between Running Start participants and recent high school graduates in our FTIC cohort. We talk about the importance of emphasizing both academics and skills in to build the benefits of dual enrollment into pathways for groups that have not participated.

The last report discusses financial aid in light of Washington state's newest aid program called the Washington Need Grant. We discuss the important role this new aid can play for enrolling students in fall to retain and graduate them with degrees.

We conclude with a discussion of where we are today. The Covid pandemic and accompanying economic crisis show that college completion has played a critical role in protecting both life and livelihood. Workers with more years of education have been more able to work protected from home. If past recessions are a guide, those with more years of post-secondary attainment will also come back the fastest when the economy does recover. How will this affect students' decisions going forward?

If early-career earnings are low, the likelihood that earnings remain low is increased. Workers with more education are more likely to have higher earnings to start.

Inequality in earnings is growing. Economists say much of this increase is driven by an increase in inequality in earnings early in workers' careers. This increase in permanent earnings inequality means that individuals are more "stuck in place" in the earnings distribution throughout their careers, with smaller chances of upward mobility than in the past. (https://equitablegrowth.org/earnings-instability-and-mobility-over-our-working-lives-improving-short-and-long-term-economic-well-being-for-u-s-workers/).

Opportunity for our graduates varies by race/ethnicity, home zip code

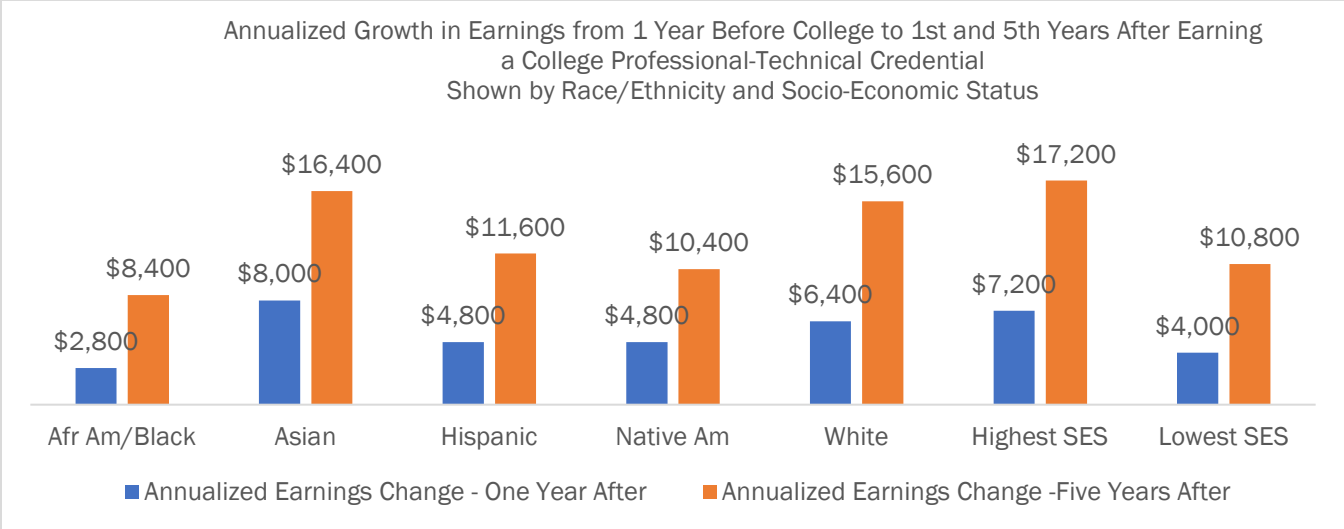
Understanding labor market outcomes for degrees and certificates is an important issue for students seeking workforce training and for colleges designing programs along career paths. The State Board for Community and Technical Colleges (SBCTC) has been measuring student employment and earnings for workforce education graduates and leavers since 1996. We described labor market outcomes for professional-technical program students one year and five years after college in this 2015 report: (https://www.sbctc.edu/resources/documents/colleges-staff/research/workforce-research/resh-rpt-15-1-labor-market-results-of-wf-students.pdf).

In two particularly compelling findings, we showed that professional-technical program completers' (any award) earnings growth varied by race, class and credential level. Under-represented groups had less pre-

post college earnings' growth in their first year after college and disparities in their earnings growth increased over time.

Figure 1. shows data for completers' earnings over time from the year before the student entered college to the first and fifth years after they completed any credential. We include only first-time students who began with a high school diploma or equivalent. The data is disaggregated by race/ethnicity and socio-economic status that has been derived from the student's home zip code. While all groups show positive gains compared to their pre-college earnings (demonstrating that competing a college credential matters), white, Asian and students from highest socio-economic status have the highest immediate and longer-term gains after college.

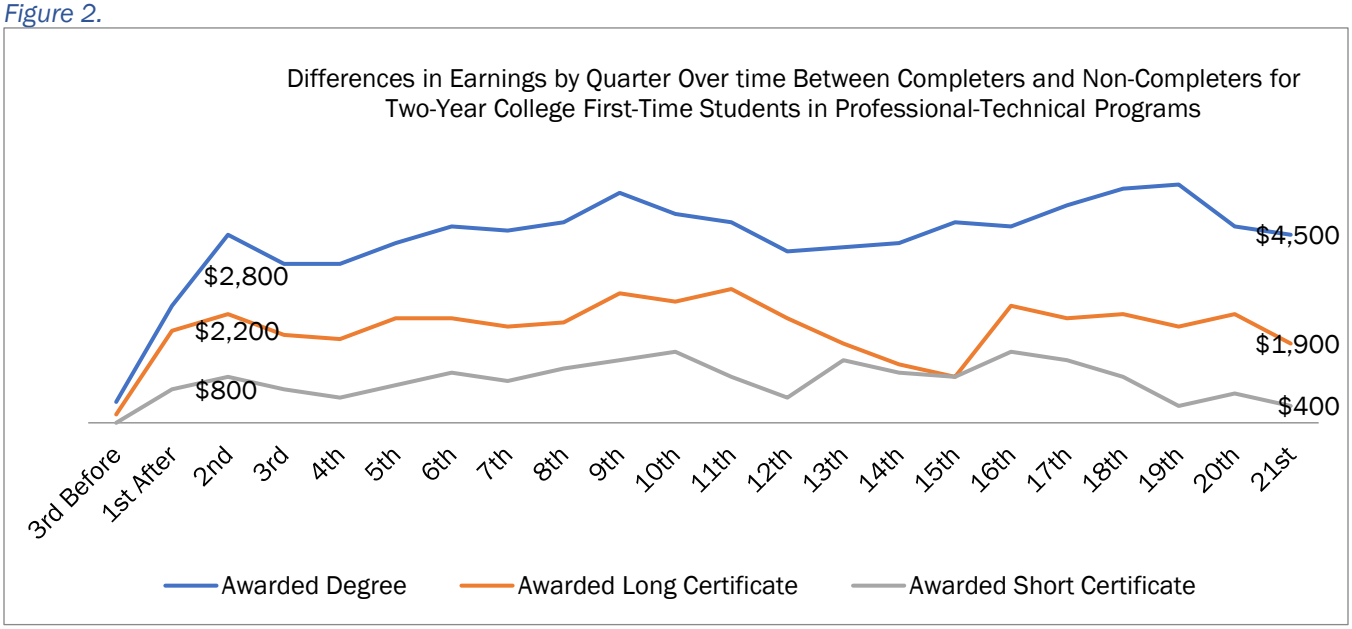
Figure 1.



First credential level and years of education makes a difference in future earnings.

Earnings inequality begins with a graduate's first credential. We presented differences in earnings by quarter for a five-year post-college period, comparing completers to student who left college with no credential. Figure 2. shows the differences in quarterly earnings between completers by type of credential earned versus a non-completer for a period covering the third quarter after college to five years afterwards. Degrees, followed by certificates at least one year in length offer the highest entry employment earnings difference with students who do not earn a credential. These longer credentials also make a substantially bigger difference in earnings than a short certificate does. Going five years out, the longer opportunity difference between the degree and no credential widens; however, the differences between certificates and no credential narrow. The short certificate provides the least long-term opportunity in these comparisons.

Figure 2.



Today, different middle-skill jobs offer considerable variation in economic opportunity.

A report from Burning Glass Technologies, Jobs for the Future (JFF), and Lumina Foundation examined nearly four million resumes of middle-skill workers and described middle-skill career progress (https://www.burning-glass.com/blog/which-middle-skill-jobs-will-last-lifetime/). The report describes lifetime jobs as those that provide the relative security and stability along with their higher starting higher earnings. They are "safe" jobs. Examples of lifetime jobs include nursing, respiratory therapist and jobs in advanced manufacturing.

A second category of jobs described by Burning Glass offer career advancement with higher pay based upon academic advancement for the worker in that first job. This includes first jobs in business for bookkeeping, office and human resource assistants, information technology support occupations, and education.

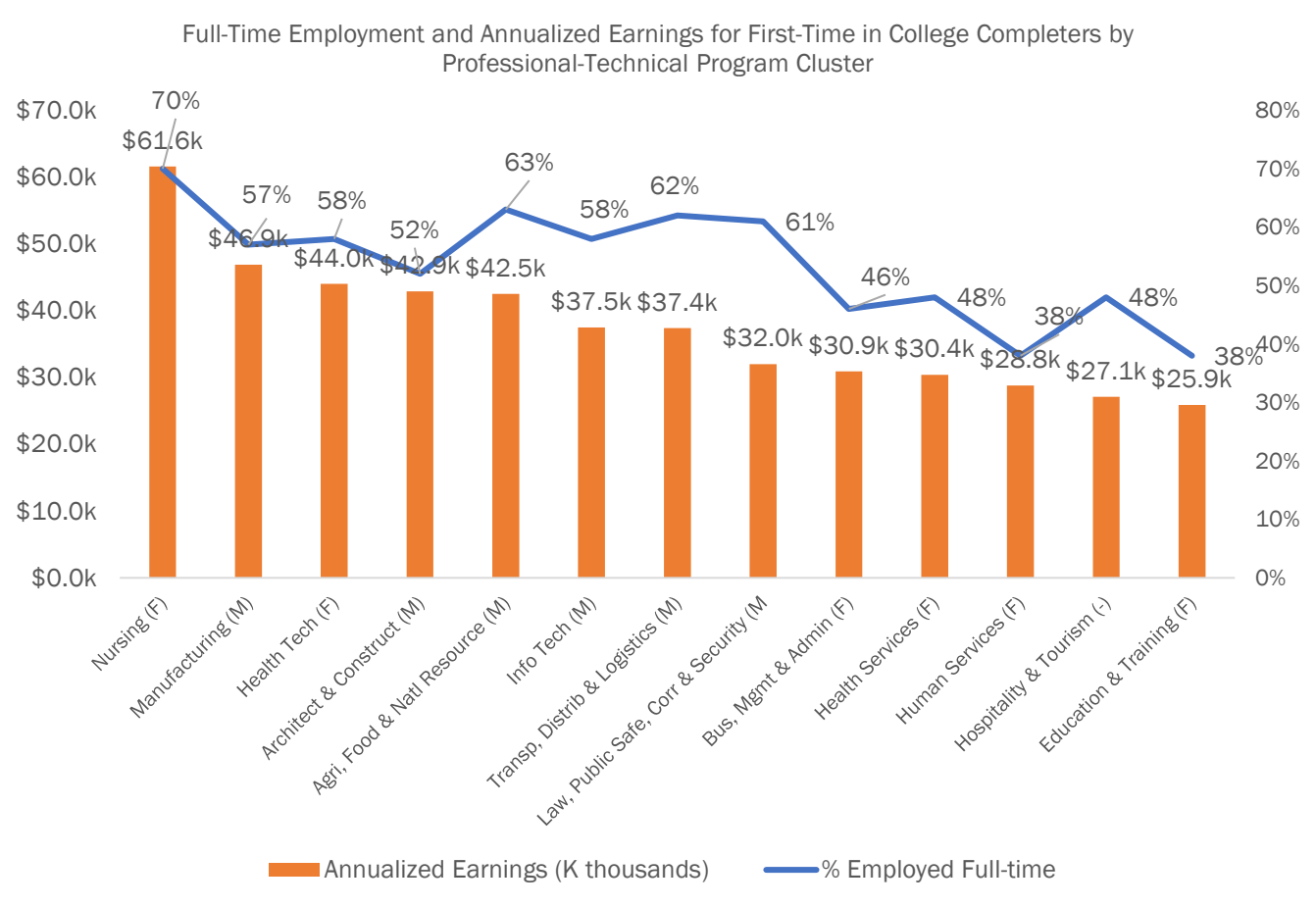
Finally, the third category described by Burning Glass are static jobs that start with low wages, suffer from high turnover and offer little to no inherent opportunity for advancement. These jobs are typically prevalent in traditional manufacturing and health services.

Professional-technical program stratification contributes to employment disparities by gender.

We continued our analyses of program outcomes in a report for Guiding Students To and Through Professional Technical Pathways (https://www.sbctc.edu/resources/documents/colleges-staff/research/research-reports/19-1-guiding-students-to-and-through-professionaltechnical-workforce-pathways-final.pdf). In this paper, we described labor market value based upon first-year fulltime earnings and employment for completers in broad professional-technical program groupings. Figure 3. displays those results. Programs with more full-time employment and higher earnings are presented as having created higher labor market value.

In parenthesis next to each grouping, we designate whether the grouping represents a female or male dominant program. Gender plays an important role as female dominant fields are most likely to have lower earning and less full-time employment. The majority of female dominant occupations are lower paying and have less full-time employment than male dominant fields. Many female students are in fields we would deem essential such as health, human services, and education.

Figure 3.



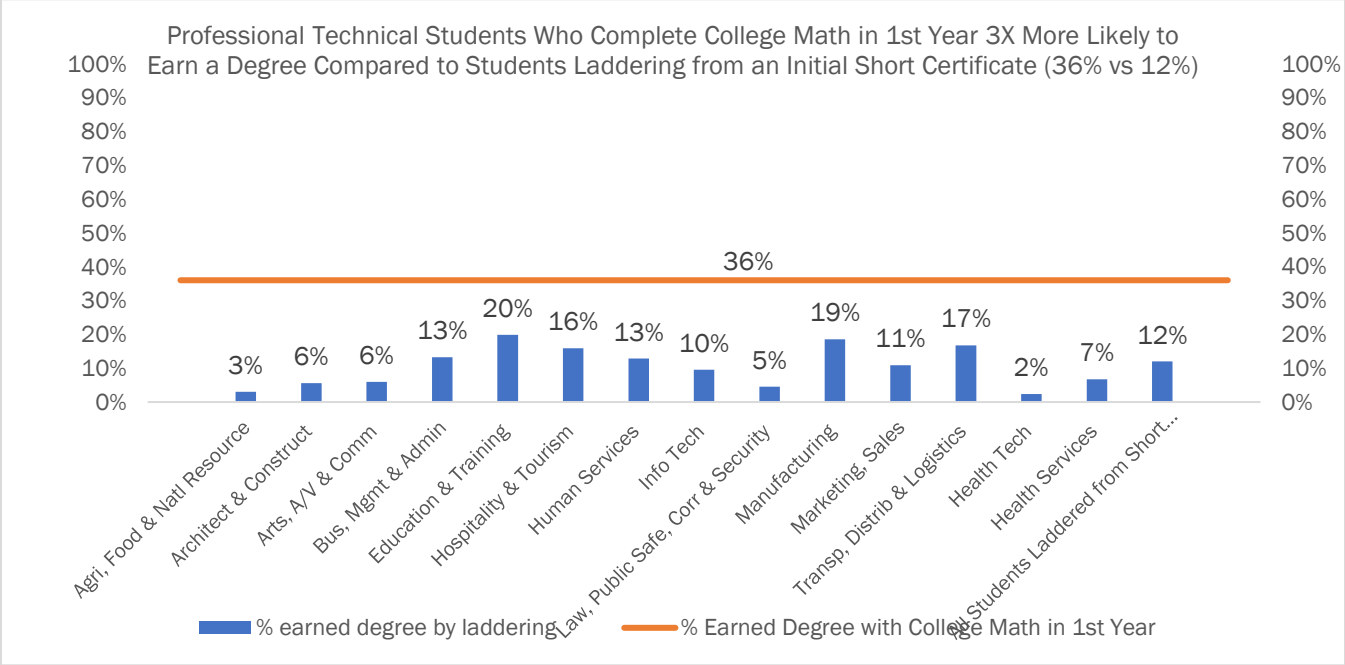
Earning a short certificate does not increase likelihood of completer a higher-level degree. Completing college math in first year is associated with higher degree completion.

The short certificate has long been viewed as a way to engage students who may not have strong academic backgrounds or might be put-off by an early focus on college academics by offering steps towards the two-year professional-technical degree. Numerous, reports including our own show, however, that short certificates do at best a poor job of promoting future academic advancement and degree attainment.

In the same report, we wrote that as in the case with academic transfer students and two-year academic degrees, we see a strong correlation to professional-technical degree completion and completing college math in their first year of enrollment. In Figure 4. below we see that overall degree attainment for FTIC

students who earned at most a short certificate was 12 percent. In contrast, 36 percent of students who completed college math in their first year earned a professional-technical degree within four years. Education and training have the highest percentage of students (20 percent) able to ladder to a degree within four years.

Figure 4.



In the associated brief we wrote that more professional-technical students need to complete college math as a critical milestone for degree attainment. This report reinforces that this is particularly important for women and women of color in lower wage fields including those we previously called essential. The fact is that our graduates will need a bachelor's degree for advancement in many of these fields. Colleges should think carefully about how they lay out their pathway steps in these programs. Instead what we observe is a strong tendency for certificates over degrees with little emphasis on shortening math pathways for students to reach a first-year college math milestone.

A subsequent brief describing Guided Pathways for students transitioning from Basic Education for Adults (BEdA) offered early evidence in academic IBEST that less than college-ready students can make fast progress and complete college math (https://www.sbctc.edu/resources/documents/colleges-staff/research/pre-college-research/beda-in-gp-research-report-20-1-final.pdf). Our analysis included IBEST students who pursue an academic transfer pathway. Admittedly this was an early look for colleges that were just beginning academic IBEST. We found in the five colleges that were most invested in growing this academic path that their IBEST students' academic transfer degree completion is substantially higher than all other FTIC students. Furthermore, the strength of this completion is bolstered by a four-year college transfer rate on par with (actually slightly higher than) other FTIC students.

IBEST has traditionally focused on professional-technical paths and relied heavily in its completions on short certificates that ladder or stack in theory, but do not in practice. We connect this higher transfer degree attainment rate to a higher first year college math completion rate. We posit that IBEST was perhaps one of the earliest groups re-design efforts to adopt and embrace reforms aimed integrating and contextualizing

academic support in the college-level coursework to bring students to and through college level math and English and trying different ways to chunk curriculum into so-called buckets as opposed to quarterly classes.

New college math pathways for professional-technical programs need to be created and start much sooner for all career areas. These math pathways must still heed the impediments that exist with traditional math pathways hat have long pre-college preludes. This must be eliminated. However, the math level must be applicable to the AB while also applicable to employment.

Lesson for Nursing: colleges need to improve advising and monitoring applicants for this selective program. Here is something to consider.

We described the pipeline for nursing graduates in a 2017 paper (https://www.sbctc.edu/resources/documents/colleges-staff/research/workforce-research/17-1-producing-nursing-grads-and-rethinking-pipeline-for-guided-pathways.pdf). In that brief we showed that one in four women starting a professional-technical pathway every year aspired to enter nursing programs. Nursing attracts interest from a wide variety of students. A prior college degree is a significant advent ultimately for those accepted to enter nursing programs. One-third have a prior two or four-year degree.

Focusing entirely on first-time ever students the majority of whom have at most a high school education, just six percent were accepted into the program within five years after they entered college. A majority of students (60 percent) who come and aspire to be nurses will be gone from college within five years without a credential of any kind. In terms of likelihood, an aspiring nursing student is ten times more likely to leave college within their first five years with no attainment as they are to be accepted into the nursing program. This means that for every 100 students accepted into the program each year, 1,000 other students started with aspirations, but left college with no credential. The lost opportunity falls hardest on under-represented students who have even greater likelihood of leaving college if their initial goal to be a nurse does not work out. They are anywhere from 20 to 60 percent more likely to leave college than Asian or white students.

These applicants are typically solid college students. We are letting them down in advising and monitoring their applicant pathway to a selective program and losing them when they are not accepted. We found helpful insights for this lost opportunity that is inherent in what is typically perceived by colleges as a highly successful program (Completion rates for students accepted in nursing are 90 percent or higher. Graduates have the highest earnings after college of any program.)

A 2015 Stanford research paper attempts to study the process community college students may go through in picking a college major (https://purl.stanford.edu/wj372kq3534). Surveying 300 students in a two-year college, the study explores a novel multi-sage framework that unfolds with awareness of career majors, then consideration of majors and finally choice of a major.

The paper next examines how students may group majors at the consideration phase based upon the underlying subject disciplines. This clustering of majors is different between different groups of students. For example, majors in male students' major networks are connected to other majors of the same discipline. Female students are more likely to consider a group of majors that is from seemingly different underlying disciplines and there are some key "pivot majors" that connect disparate groups of majors.

In the study, business administration and sociology both serve as links between groups of majors. If colleges were looking to help students develop tastes in certain fields or encourage students to gain skills in fields

with great labor market needs these gatekeeper majors could serve as important levers and first year course sequences could focus on these pivot majors and provide common basic training across a variety of programs to help students learn about different fields before making a decision.

This finding relates to a finding we made in a 2018 report studying the role of Psychology 100 in structuring pathways (https://www.sbctc.edu/resources/documents/colleges-staff/research/research-reports/18-4-role-of-psychology-100-guided-pathways.pdf). Introductory Psychology or Psychology 100 is common in both the Associate of Arts Direct Transfer Agreement (AA-DTA) degree and the Associate of Nursing Degree (ADN). The former is the largest degree that colleges award. The latter is the largest professional technical degree awarded and the third largest degree awarded overall. We found taking and passing Psychology 100 to be associated with critical milestone attainment, acceptance into nursing, two and four-year degree attainment. We posited that it might be useful to consider contextualizing this course to different professional technical program clusters and four-year college majors. Colleges could apply adapt this course to designing meta-major groups and advising students and monitoring them as they proceed along the path.

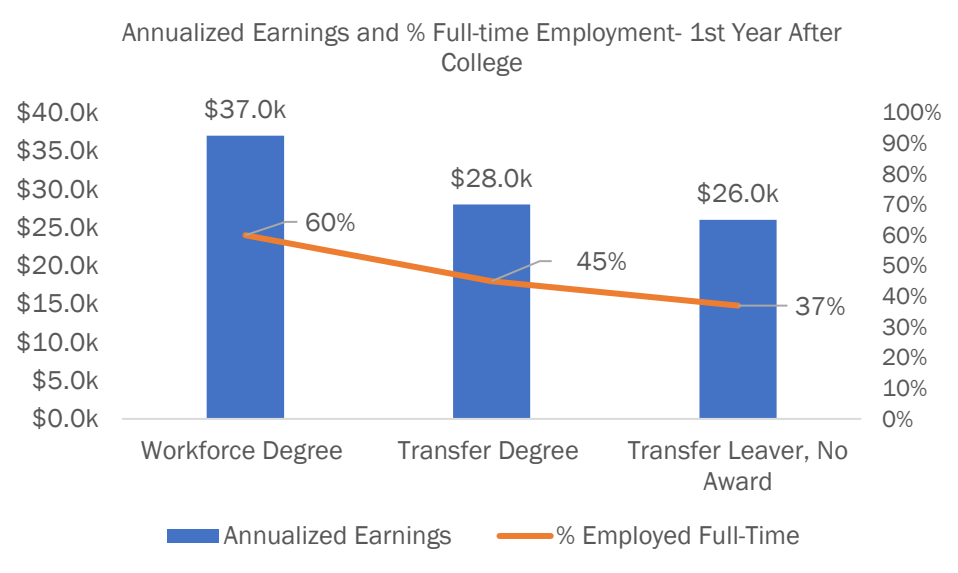
Transfer students who don't transfer also face poor labor market prospects without some specific skills added to their academic degree.

We have focused mostly on the need for a longer pathway in professional-technical programs. However, there are also risks in our transfer mission pathways. Associate degree completion increases four-year transfer more than fourfold as some 65 percent of degree completers transfer to a four-year institution within four years compared to 15 percent of non-degree students (https://www.sbctc.edu/resources/documents/colleges-staff/research/research-reports/transfer-degree-to-guided-pathway-18-6.pdf). There is also evidence that transfer rates are highest (76 percent) for students who receive major-ready transfer degrees, although relatively few students earn these degrees compared to the more general DTA.

Critical as transfer degree completion is to transfer and ultimately BA attainment, the two-year transfer degree completion rate for our FTIC cohort is only about one in five students (18 percent). Two-thirds of starting FTIC students exit college within four years with no credential. This is a problem that Guided Pathways seeks to solve.

Again, we rely upon building backwards from successful students who have completed a degree. A more structured degree pathway can make a difference. However, it is important to see what happens post-college. Here we find some 35 percent of associate degree completers do not transfer, but rather go to work directly afterwards. Figure 5. shows that the earnings and employment outlook is limited for graduates with an Associate of Arts (DTA) degree).

Figure 5.



These findings are similar to another research study conducted by Burning Glass Technologies, noting that the two-year AA degree by itself falls short of putting students on a pathway to higher wages. The report, which studied graduates in five states, cites a wage deficit of anywhere from $6,000 to $15,000 five years after graduation for students who earn an AA degree compared to a professional technical degree (https://www.burning-glass.com/wp-content/uploads/RPT_Saving_the_Associates_of_Arts_Degree.pdf).

Based upon their analysis of 32,000 job openings in its own database, Burning Glass identified skills in management and business, sales, marketing, software applications and coding as examples of areas that, if included as electives within the AA-DTA degree, could substantially enhance employability for graduates who go directly to work rather than on to the bachelor's degree. Burning Glass recommends adding specific electives with marketable skills to the AA-DTA as a way to give students who do not transfer a stronger footing in the immediate job market they are about to enter.

Running Start needs to increase participation for students from under-represented groups, lower socio-economic backgrounds, and males. This may be a good place to advise students about the AB degree alongside the traditional BA.

So far, the first-time college students in our cohorts purposefully have been excluding dual enrollments students as we kept our focus on the students most likely to struggle with college completion. That said, Running Start is extremely popular with families and students. Pushing pathways down into high schools can play an important role in improving college completion for younger students. We wrote about Running Start students and Guided Pathways in a 2017 report (https://www.sbctc.edu/resources/documents/colleges-staff/research/research-briefs/running-start-guided-pathways-march2017.pdf). An important part of this report showed which students do and don't participate in Running Start. Running Start needs to increase participation for students from underrepresented groups, lower socio-economic backgrounds, and males.

While demographically our recent high school graduates in our FTIC cohort are largely representative of high school 11th and 12th grade classes, Running Start students are not. Running Start emphasizes an academic transfer path. However, recent high school graduates in our FTIC cohort are twice as likely to start directly in a professional-technical pathway.

The traditional mission-driven ways to onboard students may be uninviting for under-represented student groups. We posit that we should be reaching out to prospective Running Start parents and students and advising about the bachelor's degree path with the AB alongside the BA. Then we need to advise high school students towards all two-year degrees leading to bachelor's degrees through participation in Running Start for both the financial incentives and early momentum towards degree completion that benefits students.

The new Washington Need Grant offers an opportunity to highlight importance of starting college in the fall. This will increase degree attainment.

The 2019 State Legislature established the Washington College Grant (WCG) program to replace the State Need Grant (SNG). The WCG secures funding for all eligible students. We wrote about this in a brief (https://www.sbctc.edu/resources/documents/colleges-staff/research/financial-aid-research/19-2-state-need-grant-research-brief-final-10-10-19.pdf). We revisited a 2013 report with an update comparing eligible students served and unserved by the SNG and demonstrated how receiving the SNG increased retention. In our update we analyzed when students start college as well. We observed differences among colleges in onboarding new students with the SNG and found there was as much as 25 percentage points difference between colleges who started more students in fall and colleges who don't. However, we observed that the percentage of students starting in fall could also vary substantially from year to year for the same college. We posit that one factor may be inconsistencies in onboarding practices and staff.

First-year, first-time students who start in fall have higher completion rates than students who start later in the year. The overall difference in completion within four years can be as much as nine percentage points for all students (26 percent vs. 17 percent) and for transfer students' degree completion as much as 15 percentage points (26 percent versus 12 percent).

As colleges look to both increase completions and manage enrollments, more predictable course and program schedules for students will be an important tool and fall starts will undoubtedly be a primary focus. Better managing fall starts for first-year students can reduce attrition and increase the number of students retained through to completion. Percentage of first-time, first-year students who start in fall is an important metric for colleges to track- year to year within a college.

The Covid pandemic is exposing deep inequities in healthcare and employment. Degrees will become more important going forward.

The Covid pandemic and accompanying economic crisis show that college completion has played a critical role in protecting both lives and livelihoods. Workers with more years of education have been more able to work protected from home. The virus added exposure to race and ethnicity gaps.

If past recessions are a guide, those with more years of post-secondary attainment will also come back the fastest and the strongest when the economy does recover. After the 2008 Great Recession parents and students had a strong reaction to both the cost and expected returns from college. Nationally, students changed what they wanted to study, shifting towards more job-oriented majors, at the expense of the humanities and social sciences. After remaining relatively stable over the previous decade, the share of all students majoring in the humanities or the social sciences dropped from 29% in 2008 to 23% in 2018 (https://qz.com/1848486/how-coronavirus-could-impact-us-college-majors/).

It was during this period that our two-year colleges were authorized to award the applied baccalaureate (AB) degree. The AB proceeds along a more structured degree pathway. It starts with a two-year professional technical degree in a specific career path and then adds tailored general education toward the four-year degree. Over the past decade, colleges have been ramping up AB degree offerings and in the past several years we are seeing the cumulative effect turning into graduates. Colleges awarded nearly 1,400 AB degrees in 2019 (https://www.sbctc.edu/colleges-staff/research/data-public/credentials-awarded-dashboard.aspx).

In 2017, Washington public four-year institutions graduated 25,400 Bachelor's degree (https://erdc.wa.gov/data-dashboards/public-four-year-dashboard#degrees-by-demographic). (Note that Washington two-year colleges are a substantial partner in Bachelor's degrees.) In a study we repeated three times (https://www.sbctc.edu/resources/documents/colleges-staff/research/transfer-research/18-3-role-of-transfer-2018.pdf), nearly 40 percent of these four-year graduates started as a two-year college transfer student. Eight in ten of these BA graduates transferred with their two-year degree.

The AB offers a new path to the four-year degree. It is an important pathway for students with two-year professional-technical degrees for lateral and horizontal advancement in their fields. Furthermore, our own research demonstrates the earnings that go along with the AB (https://www.sbctc.edu/resources/documents/colleges-staff/research/bachelor-applied-science-research/effect-on-earnings-ab-degree-kaikkonen-and-quarles-v2.pdf). These earnings gains are strongest in technical programs and weaker in the social sciences. This suggests that advanced degrees are still necessary for some areas. Colleges need to consider this while not neglecting the essential jobs that are in lower paying sectors. This mean valuing these jobs by investing in the education of those who do the work.

We have already begun to think about post-pandemic college. Will students move closer to online learning? Will hybrid learning be better for socially distancing while maintaining high touch interactions? Will some colleges close because of finances and lost revenues? These are all big questions. We have chosen to focus on what and how colleges will meet student demand post-pandemic.

In this brief we review evidence for economic stratification and the racial, social class and gender inequities that intersect with race. Educational opportunity has both qualitative and quantitative stratification built into programs and years of education based upon credentials. This in turn can perpetuate economic and social stratification. This stratification can occur within the same college as different students enter through different doors to enroll in different paths that proceed along different credential lengths. Our threefold mission structurally builds this into who we are and how we serve our students.

We suggest that now more than ever singularly focusing on degrees is critical to economic mobility and fighting the stratifications in our society. We addressed putting relevant college math in professional-technical programs. This is math that would count toward a four-year degree. Drawing upon work being done in IBEST we think this includes integrating and contextualizing academic support in the college-level coursework to bring students to and through college level math and English and trying different ways to chunk curriculum into so-called buckets as opposed to quarterly classes. This is worthy of further investigation from our most talented academic instructors and instructional designers, potentially even

changing how we view math less as a course and more as skills and abilities infused into an overall program design.

We suggest that an academic pivot course might be the best way to start students in a pathway that ultimately results in choosing a professional technical major. Can this course be contextualized to the pathway for this purpose while still meeting the course requirements to confer degree credits? Again, we suggest further investigation from our most talented academic instructors and instructional designers.

Then we also suggest that a professional-technical course or courses would be helpful to students starting in academic transfer for marketable skills if they don't transfer. We would further suggest that all students need to look to four-year paths when they enroll with a first decision being do, they would to pursue the traditional transfer or an AB degree.

We discuss how Running Start can build enrollment to under-served groups with a singular focus on degrees, including the AB degree. We knew Washington Need Grant can be helpful if it is used to start more students in fall quarter and thereby increase likelihood of completion.

Taken together, these examples are green shoots for how a singularly-focused mission for our traditional and new paths to a four-year degree attainment could bring our three missions together to enroll, retain and complete more students.

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