NEW BACCALAUREATE SERIES

Washington Bachelor's of Applied Science Graduate Employment and Earnings Outcomes

Elizabeth Apple Meza and Debra D. Bragg

DATA NOTE 7 | JUNE 2020

This study examines the employment and earnings of Washington Bachelor's of Applied Science (BAS) graduates in business, computer and information sciences, healthcare, and visual and performing arts. Complimenting research by Kaikkonen (2020), we report results of two studies that find high employment match rates and increasing annualized earnings over time for BAS graduates of all four programs. Healthcare graduates receive the highest and most consistently lucrative wages. However, disaggregation of earnings for BAS graduates by gender and race reveals mixed results. Female BAS graduates lag behind male BAS graduates on annualized earnings, often by large margins. The one exception is computer and information sciences where female BAS graduates close the earnings gap and surpass their male counterparts one year after graduation. With respect to race, we find white students tend to garner higher earnings than racially minoritized groups, but there are exceptions. Latinx and Native American/Alaska Native business graduates have comparable annualized earnings to White and Asian groups, and African American BAS healthcare graduates start out with the lowest annualized earnings of any group but exceed Whites at three years post-graduation ($74,600 for African Americans compared to $72,000 for Whites) and significantly narrow the wage gap with Asians who earn $77,600. As more BAS students graduate and enter the workforce it is important to continue to track employment and earnings to gain an even fuller and more nuanced understanding of these critical outcomes by student demographics.

BACKGROUND

Bachelor's of Applied Science (BAS) degrees have grown substantially since the Washington state legislature passed the *Expanding Access to Baccalaureate Degrees Bill* in 2005 that authorized the State Board of Community and Technical Colleges (SBCTC) to initiate pilot programs in a select group of community and technical colleges. In 2010 the state legislature passed another bill authorizing the 2010 System Design Plan in the Washington state Senate Bill, titled *Expanding the Higher Education System Upon Proven Demand*, that allowed the SBCTC to remove the pilot status for BAS degrees. Then in 2012, the state legislature awarded the SBCTC program approval authority for all BAS degrees conferred by community and technical colleges (for a fuller history of BAS degrees in Washington, see: https://www.sbctc.edu/colleges-staff/programs-services/applied-baccalaureates/).

Washington is one of 23 states to authorize community colleges to confer bachelor's degrees, and nearly all these degrees take the form of the BAS. The upper-division curriculum associated with BAS degrees tend to build on existing professional-technical associates degrees, though some new degree programs are created to accommodate student needs to access and complete BAS degrees that are responsive to employer demand. To date, Washington has approved BAS programs in 29 of its 34 community and technical colleges, and additional colleges are preparing proposals according to the latest BAS program inventory from the SBCTC (Jamilyn Penn, personal communication, February 18, 2020).

Looking at earlier research on Washington BAS degrees, BAS enrollments and completions are rising across the state. The SBCTC (2020) reports over 3,100 full-time equivalent

(FTE) enrollments in the 2017-2018 academic year, and a cumulative total of 3,333 graduates from Fall 2009 through Spring 2018. Enrollments are largest in business, healthcare, and computer and information sciences, and are growing in education, social sciences and other fields. Research also shows that the BAS student population is more diverse than students enrolled in comparable programs in public four-year regional universities on race, age, and income. These results suggest the BAS is addressing an important goal of Washington's college completion agenda to diversify the state's baccalaureate graduates (Meza, 2020).

Meza and Bragg (2020) also find BAS completion rates rival transfer completion rates in Washington. A comparison of data on BAS program completion for community college bachelor's students and traditional transfer students between 2011 and 2014 reveal that nearly 68 percent of BAS students completed bachelor's degrees compared to 70 percent of traditional transfer students who finished bachelor's degrees in one of Washington's regional public universities. These results are based on 200 percent fall-to-fall completion using data from SBCTC for BAS students and Washington Education Research Data Center (ERDC) for university students. Given Washington state's successful community college-to-baccalaureate completion rates, ranking the state second of all 50 (Shapiro et al., 2017), these results suggest both BAS and transfer are strong options for baccalaureate attainment in Washington.

PRIOR RESEARCH ON EMPLOYMENT AND EARNINGS

Given that a high proportion of BAS students are graduating, we wanted to know how these graduates are faring in the labor market. Do BAS graduates find employment? Do they get well-paying jobs? Do their earnings increase over time? Answers to these questions are important to understanding how the BAS degree is contributing to state and local economies and also to informing future college completion policies in the state.

Using Unemployment Insurance (UI) wage data, SBCTC's lead researcher Darby Kaikkonen (2017) used the match of BAS graduates in quarterly UI wage records to approximate employment for the 8-year period from 2009 to 2017. By "employment match", we mean that an individual exists with a wage in the quarterly UI wage record maintained by the state, indicating that individual can be counted as employed during that quarter. While UI wage records have limitations because we know relatively little about individual employment during the quarter (whether it was full- or part-time, the nature of the job, etc.), UI wage records are one of the best ways to measure employment available to researchers. Similar to our analytical approach, Kaikkonen computed the employment match for BAS graduates and also found a high match rate for all BAS program areas, ranging from 80 percent to 92 percent. Healthcare showed the most consistently high match rate of all of the program areas.

The healthcare program area also exhibited the highest median earnings, approximately $92,000 in years 7 and 8 of the 8-year trend analysis. Though having far less time to study because of the newness of computer and information sciences BAS programs, graduates tracked two years following graduation revealed the second highest median earnings compared to healthcare, reaching nearly $58,000 in the second year of the follow-up study. Business reported median earnings of nearly $63,000 by year 8, and just under $50,000 in visual and performing arts by year 7. Additional time is needed to produce reliable earnings results for graduates of other newer BAS programs (i.e., education and natural resources).

Kaikkonen and Quarles (2018) published research on employment and earnings for students who enrolled in and completed BAS degrees between 2008-09 and 2012-2013. This quasi-experimental (propensity score matching) study compared BAS graduates to associates-degree graduates and found BAS graduates had higher annual earnings than associates-degree graduates in healthcare, technology, and social sciences programs of study. The highest average annual earnings were in healthcare, which was not surprising given the consistency of this finding for Washington BAS graduates. However, this study showed student characteristics such as age, gender, academic proficiency, and earnings prior to BAS program enrollment also contributed to earnings, in addition to BAS degree completion.

In 2020, Kaikkonen updated her 2017 research on employment and earnings for Washington BAS graduates at a research symposium sponsored by the Community College Baccalaureate Association (CCBA), and we compare results in our data note to Kaikkonen's CCBA presentation. Our goal is to discover similarities and differences between the two studies that help us interpret the meaning of BAS graduate employment and earnings results. Given

so little is known about these outcomes, it is useful to review these complimentary studies to determine whether similar patterns emerge and ascertain their contribution to understanding BAS degree programs. Also see our companion data note on BAS graduate employment and earnings at: https://www.uw.edu/ccri/newba-dn8

RESEARCH QUESTIONS

Three research questions guided our research on employment and earnings for Washington BAS graduates:

1. What is the employment match rate, which we refer to as the "in-state covered employment match rate", for Washington BAS graduates?
2. What are the average quarterly earnings of BAS graduates of the following four program areas: business, computer and information sciences, healthcare, and visual and performing arts?
3. What are the average quarterly earnings of graduates of the four BAS program areas by gender and race?

METHODS

We analyzed aggregate data provided to CCRI through a formal data-sharing agreement with the Washington Education Research Data Center (ERDC), a state agency that links data sets for P-20 education and the workforce. The dataset for this study includes aggregate data on the labor market outcomes from the initial years Washington community and technical colleges began enrolling students in BAS degrees through to the Spring 2017 term. This roughly 10-year period represented a high level of growth of BAS degrees, with business and healthcare being two of the most long-standing programs. By 2018, 20 community and technical colleges graduated BAS students in at least one BAS degree program area, with the majority of these colleges conferring BAS degrees in more than one program area.

The data file provided by the ERDC included the "in-state covered employment match" using the BAS graduate Unemployment Insurance (UI) records. Wage data were adjusted for inflation and computed in aggregate in the first quarter, fourth quarter, and twelfth quarter after BAS student graduation. To provide more meaningful results on earnings, we annualized these quarterly data to reflect average annual earnings. Also, the ERDC disaggregated these employment and earnings results by race and gender.

BAS DEGREES AND DEMOGRAPHICS

To provide an understanding of the Washington BAS graduates who are included in our employment and earnings analysis, we report on the number of graduates in the four programs areas included in this study: business; healthcare; computer, and information sciences/IT and information technology and visual performing arts. These areas were chosen because they have sufficient numbers of graduates between 2009 and 2017 to track employment outcomes in terms of the in-state covered employment match rate and quarterly wages in the first, fourth and twelfth quarters after graduation. The basis for the four program areas is research conducted by Meza (2019) and Meza and Bragg (2020) using the following Classification of Instructional Programs (CIP) codes: business (CIP codes beginning in 52), visual and performing ats (CIP codes beginning in 50), healthcare (CIP code 51); and computer, information science, and IT (CIP code 11). All four of these program areas had at least 10 graduates and in most cases, many more than 10, which is the minimum threshold for the ERDC to provide aggregate results using its privacy guidelines.

Figure 1 displays results for the population of CCB students who received BAS degrees between 2008-09 and 2017 in the four program areas analyzed in this study. The figure shows substantial growth in business and healthcare though a newer program area, computers and information sciences, also shows large growth over the 4-year period of its existence. The total sample of graduates included in our analysis is 2,423.

Table 1 shows the number of BAS graduates by program area and also breaks out these results by race and gender. The table reveals the largest number of graduates is in business and healthcare, followed by visual and performing arts and computer and information sciences. Most graduates are white, with the number of graduates representing other racial groups being substantially smaller than the white group and varying by program area. African American students make up less than 10 percent of the graduates in each of the four program areas, with the largest enrollment in healthcare. Similarly, Latinx students make up less than 10 percent of all program areas except business where they make up nearly 14 percent of the business graduates.

Analysis by gender reveals that computer and information science graduates are predominantly male, whereas healthcare graduates are mostly female. Both business and visual and performing arts have higher proportions of females than males but the distribution by gender is not as skewed as the other two program areas, especially in business where 58 percent of the graduates are female and 42 percent are male.

BAS GRADUATE EMPLOYMENT

As noted, the employment match refers to graduates who are identified as having quarterly Unemployment Insurance (UI) wage records according to the Employment Security Department (ESD). Also referred to as the "in-state covered employment match" (Blagg & Washington, 2020), using UI wage records as a proxy for employment is considered one of the best methods of measuring employment available to researchers. However, using quarterly UI wage data has

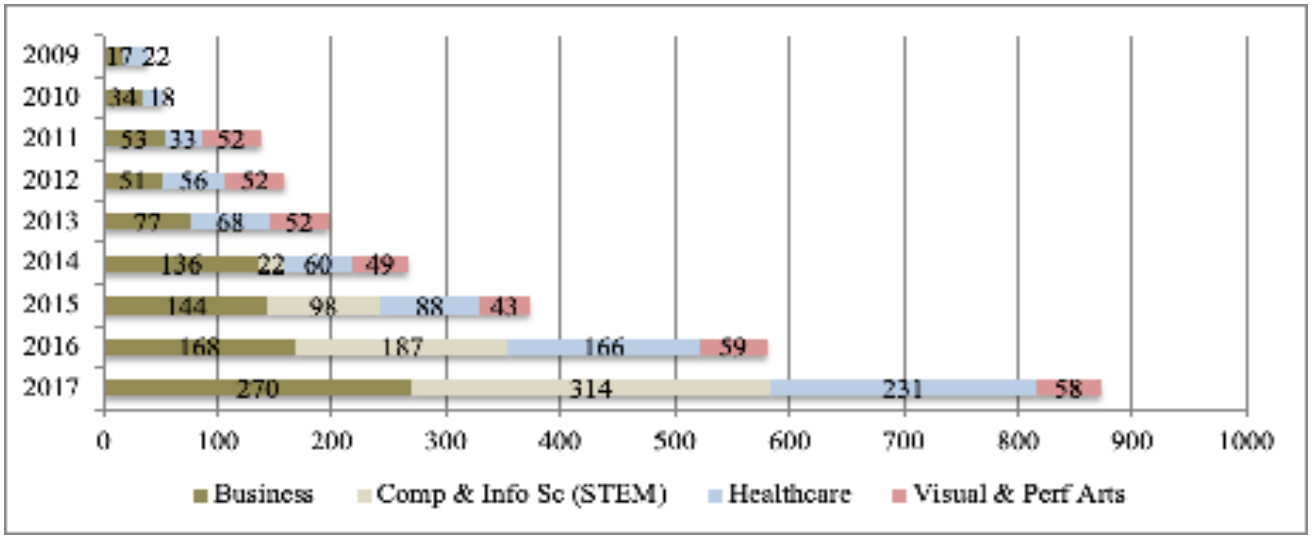

Figure 1. BAS graduates by program area from 2009 to 2017.

Table 1. BAS Graduates by Program Area and Race/Ethnicity and Gender

Program Area	CCB Graduates (No. & Percent)	Race/Ethnicity (No. & Percent)				Gender (No. & Percent)	
		White	Asian	African American	Latinx	Female	Male
Business	962 (39.7%)	572 (59.5%)	89 (9.3%)	21 (2.2%)	132 (13.7%)	562 (58.4%)	399 (41.5%)
Computer & Info Sciences	265 (10.4%)	167 (63.0%)	36 (13.6%)	10 (3.8%)	13 (4.9%)	45 (17.0%)	220 (83.0%)
Healthcare	752 (31.0%)	436 (58.0%)	88 (11.7%)	71 (9.4%)	46 (6.1%)	610 (81.1%)	140 (18.6%)
Visual & Performing Arts	366 (15.1%)	237 (64.7%)	68 (18.6%)	NA <10	14 (3.8%)	255 (70.0%)	111 (30.3%)
Total	2423 (100%)	1460 (60.2%)	281 (11.6%)	102 (4.2%)	205 (8.5%)	1511 (62.3)	908 (37.5%)

Note: Cells with N/A did not have a large enough number of students for the computation.

a number of limitations (Harmon & Feldbaum, 2012). This is because quarterly UI wage data do not include earnings for those not covered by UI, most notably graduates who are self-employed or who work for the federal government (civilian or military). In addition, these data only include earnings for those employed in the state, so they tell us nothing about the employment graduates who have left the state of Washington.

Figure 2 shows the in-state covered employment match rate results for the graduates for the first, fourth and twelfth quarters after the students graduate with BAS degrees. The total match shown in the last three bars in the figure reveal that the fourth quarter has a slightly higher match than the first or twelfth quarters. This finding makes sense because it may reflect a delay in full employment immediately after graduation. However, the difference in the match rate is relatively small over the three designated quarters, ranging from a high of almost 75 percent in the fourth quarter and a low of about 69 percent in the twelfth quarter.

Looking at program areas, two areas (healthcare and visual and performing arts) show a slightly larger percentage match in the fourth quarter than the first and twelfth quarters. Computer and information science also shows a higher match in the fourth quarter than the first quarter. Business displays a different pattern in that the highest match appears in the first quarter and declines slightly in the fourth and again in the twelfth quarters. It is noteworthy, however, the match rate for business across all three periods is still slightly higher than the average match rate for all four program areas.

ANNUALIZED EARNINGS BASED ON AVERAGE QUARTERLY EARNINGS

The study computed annualized earnings for BAS graduates based on the average wages in the first quarter, fourth quarter, and twelfth quarter after BAS students graduate. The earnings are computed for the four program areas of business, computer and information sciences, healthcare and visual and performing arts, because of the newness of the programs produced an insufficient number of graduates to compute earnings for computer and information sciences graduates in the twelfth quarter.

Healthcare graduates show the highest annualized earnings of all program areas based on the UI quarterly earnings (Figure 3), and these results are comparable to the median annual earnings reported by Kaikkonen (2020) at one, two, and three years past BAS graduation (Table 2). The program area with the next highest annualized earnings was computer and information science (based on results for the first and fourth quarters only), then business, and finally visual and performing arts. In the twelfth quarter, the annualized earnings for visual and performing arts surpasses business by a relatively small amount, i.e., $50,000 compared to $49,200.

These results also show an increase over time in all four program areas, with increases evident for healthcare, business, and visual and performing arts from the first to second to third annualized earnings, and from the first to second annualized earnings for computer and information sciences. The largest increase was seen in healthcare, rising

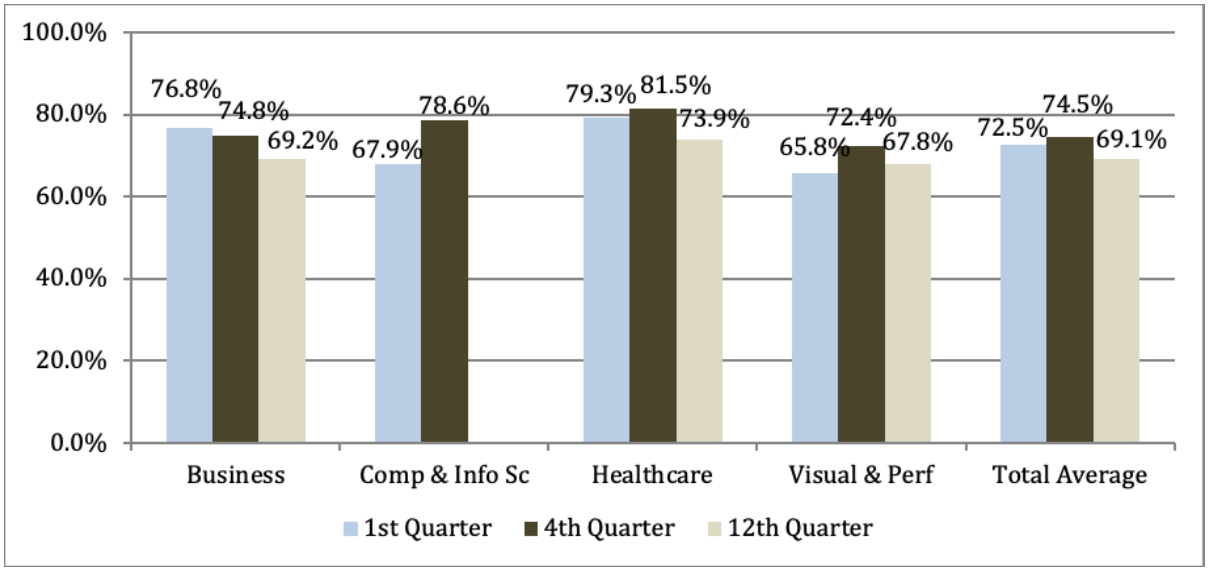

Figure 2. The in-state covered employment match rate by program area and quarter.

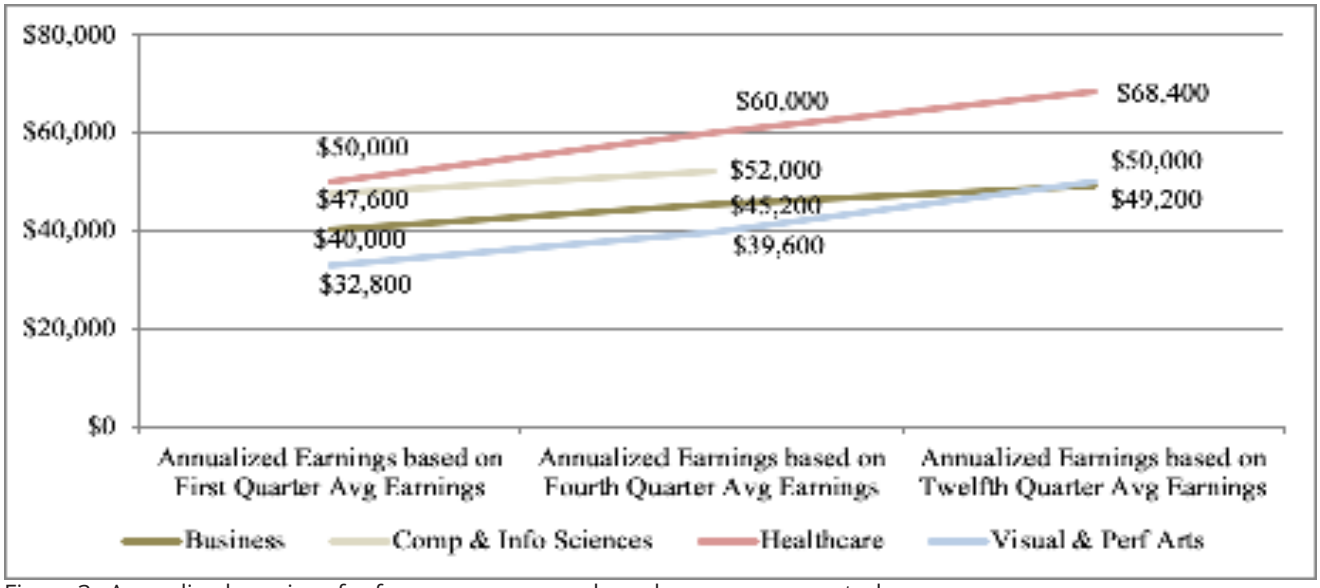

Figure 3. Annualized earnings for four program areas based on average quarterly wages.

from $50,000 to $68,400 over about a three-year period, and in the lowest salary program area of visual and performing arts, increasing from $32,800 to $50,000 over approximately three years.

Table 2 also shows the annualized earnings reported for the fourth quarter in our study are most comparable to results for the second year in the Kaikkonen (2020) study. The computations are different in that our study used an average quarterly wage to compute annualized earnings and Kaikkonen used a median quarterly wage. Also, the time periods for the calculations vary slightly. Specifically, the BAS graduates in Kaikkonen's research analyzes BAS graduates by annual cohorts whereas our ERDC sample provides results in aggregate for the total BAS graduate group by program area, and also by student demographics. Despite these differences, the two studies find somewhat comparable earnings patterns, especially in healthcare and business where the largest number of students complete BAS degrees.

BAS GRADUATE ANNUALIZED EARNINGS BY RACE AND GENDER

Table 2 provides results on annualized earnings based on results for three of the four program areas and five racial

Table 2. Comparison of Annualized Earnings in Four Program Areas to Kaikkonen (2020)

Program Area	Our Study			Kaikkonen (2020)		
	Annualized Earnings based on First Quarter Avg Earnings	Annualized Earnings based on Fourth Quarter Avg Earnings	Annualized Earnings based on Twelfth Quarter Avg Earnings	Annualized Earnings based on Median Earnings (Year 1)	Annualized Earnings based on Median Earnings (Year 2)	Annualized Earnings based on Median Earnings (Year 3)
Business	$40,000	$45,200	$49,200	$39,375	$42,951	$45,137
Computer & Info Sciences	$47,600	$52,000	N/A	$43,951	$58,476	$56,101
Healthcare	$50,000	$60,000	$68,400	$59,640	$59,717	$61,037
Visual & Performing Arts	$32,800	$39,600	$50,000	$37,955	$58,476	$46,703

Note: Cells with N/A did not have a large enough number of students for the computation.

groups. The annualized earnings are based on average quarterly earnings after the first, fourth, and twelfth quarters that BAS students graduate. The visual and performing arts program area was removed from this analysis because of limited numbers across the majority of cells. Also, the small number of African Americans in business and computer and information sciences as well as the small number of Native American/Alaska Native graduates in computer and information sciences and healthcare prevented us from analyzing results for these groups. Annualized earnings are also precluded for Latinx graduates in computer and information sciences and healthcare due to small numbers.

Table 3 shows mixed results on annualized earnings for racial groups where sufficient numbers allow for analysis. For example in business, we find Latinx graduates exceed the annual earnings for other racial groups and African American graduates show annualized earnings substantially lower than other groups in the first quarter of analysis. However, by the third annualized earnings measure, African American graduates exceeded whites and fell just slightly below Asians. In business, the initial annualized earnings of Native American/Alaska Native graduates lag behind white and Latinx students but this gap closes considerably by the second annualized earnings period. These preliminary results illustrate the importance of disaggregating earnings over time to understand how BAS graduates of different racial and ethnic groups experience the labor market.

We also conducted an analysis of the annualized earnings by gender. Results in Table 4 show higher initial and longer-term (equivalent to three years) annualized earnings for males than females in all four program areas, with healthcare demonstrating the highest annualized earnings for both sexes. It is noteworthy that the gaps in annualized earnings are substantial, ranging from the smallest gap of $6,000 in the fourth quarter for BAS graduates of visual and performing arts programs, to the highest gap of over $15,000 in the twelfth quarter for BAS healthcare graduates. A noteworthy exception is computer and information sciences where annualized earnings for females rises substantially from the first quarter to the fourth quarter and surpasses males at $60,800 compared to $50,400. These results show a dramatic increase of $9,600 in annualized earnings for females based on comparing first to fourth quarter average earnings relative to a modest increase of $1,200 for males at these same points in time. It unclear the extent to which the smaller sample of females compared to males in computer

Table 3. Annualized Earnings by Program Area for CCB Graduates by Race

Program Area	White		African American		Asian		Latinx		Native American/ Alaska Natives	
Business	1Q	$40,400	1Q	$28,000	1Q	$33,600	1Q	$42,800	1Q	$36,800
	4Q	$45,600	4Q	N/A	4Q	$40,400	4Q	$46,800	4Q	$44,000
	12Q	$51,200	12Q	N/A	12Q	$33,600	12Q	$52,800	12Q	N/A
Computer & Info Sciences	1Q	$49,200	1Q	N/A	1Q	$36,000	1Q	$57,600	1Q	N/A
	4Q	$53,600	4Q	N/A	4Q	$42,000	4Q	N/A	4Q	N/A
	12Q	N/A	12Q	N/A	12Q	N/A	12Q	N/A	12Q	N/A
Healthcare	1Q	$52,000	1Q	$42,000	1Q	$50,400	1Q	$46,400	1Q	N/A
	4Q	$62,800	4Q	$54,000	4Q	$58,800	4Q	$62,800	4Q	N/A
	12Q	$72,000	12Q	$74,600	12Q	$77,600	12Q	N/A	12Q	N/A

Note: Results were not included for visual and performing arts, and cells with N/A did not have a large enough number of students for the computation.

Table 4. Annualized Earnings by Program Area for CCB Graduates by Gender

Program Area	Female			Male		
	Annualized Earnings based on First Quarter Avg Earnings	Annualized Earnings based on Fourth Quarter Avg Earnings	Annualized Earnings based on Twelfth Quarter Avg Earnings	Annualized Earnings based on First Quarter Avg Earnings	Annualized Earnings based on Fourth Quarter Avg Earnings	Annualized Earnings based on Twelfth Quarter Avg Earnings
Business	$36,400	$40,800	$46,000	$45,200	$50,800	$53,200
Computer & Info Sciences	$37,200	$60,800	N/A	$49,200	$50,400	N/A
Healthcare	$48,000	$57,600	$65,200	$58,400	$70,800	$80,800
Visual & Performing Arts	$30,000	$37,600	$46,400	$38,000	$43,600	$59,200

Note: Cells with N/A did not have a large enough number of students for the computation.

and information sciences may influence this result, but caution is recommended when cell sizes are adequate to meet reporting standards but possibly so modest as make results unreliable.

SUMMARY AND CONCLUSIONS

Washington BAS graduates of business, computer and information sciences, healthcare, and visual and performing arts programs are employed at high rates. For all the four program areas, the in-state covered employment match ranged from 69 percent to 75 percent, with healthcare demonstrating the highest and most consistent employment match in the first, third, and fourth quarters. Complimenting research by Kaikkonen (2020), our study adds to understanding of Washington BAS graduates for their first three years of employment after graduation. Results show an increase in annualized earnings from the first to the third year after BAS degree conferral using quarterly UI wage data. Healthcare graduates received the highest and most consistent annualized earnings, with computer and information sciences showing promising annualized earnings for BAS graduates based on first and fourth quarter UI wage records.

We found mixed results on BAS earnings by gender and race. Female BAS graduates consistently lag behind male BAS graduates on annualized earnings in all four program areas, including healthcare and visual and performing arts where females make up the majority of graduates. Considering earnings by racial group, white BAS graduates tend to have the highest annualized earnings of BAS graduates of all four programs. However, Latinx and Native American/ Alaska Native business graduates have fairly comparable annualized earnings to the White and Asian BAS graduates. Also noteworthy, the African American healthcare BAS graduates start employment with a lower annualized earnings in the initial quarter but exceed Whites ($74,600 for African American graduates compared to $72,000 for White graduates) by the twelfth quarter. They also come much closer to the annualized earnings of the top salaried group, the Asian graduates, at $77,600.

As more BAS graduates complete programs of study in Washington's community and technical colleges it is important to continue to track employment and earnings to gain a fuller and more nuanced understanding of labor market outcomes by student demographics. In the present analysis, sample sizes tend to be small and there has also been relatively limited time for graduates to secure employment and engage in longer-term labor market experience. Larger samples would also allow for research using student-level analysis to determine the ways in which gender and race intersect with other variables such as age, academic preparation, and income to provide greater understanding of the relationships between BAS degrees and labor market outcomes.

REFERENCES

Applied Baccalaureate Degree Programs. Washington Revised Code of Washington. 28B.50.810. (2012).

Blagg, K., & Washington, K. (2020, January). *Which dollars get measured? Assessing earning metrics using data from Connecticut.* Washington, DC: Urban Institute. Retrieved from https://www.urban.org/research/publication/which-dollars-get-measured-assessing-earnings-metrics-using-data-connecticut

Expanding Access to Baccalaureate Degree Programs. Washington House Bill 1794 (2005).

Expanding the Higher Education System Upon Proven Demand. Washington Senate Bill 6355 (2010).

Feldbaum, M., & Harmon, T. (2012). *Using Unemployment Insurance wage data to improve program employment outcomes: A technical assistance guide for community and technical colleges.* Washington, DC: National Science Foundation. Retrieved from: https://www.achievingthedream.org/sites/default/files/resources/Using%20UI%20Wage%20Data.pdf

Kaikkonen, D. A. (2017, August). *Program growth and graduate employment outcomes of Washington's applied baccalaureate degrees.* Olympia, WA: Washington State Board of Community and Technical Colleges. Retrieved from https://www.sbctc.edu/resources/documents/colleges-staff/research/bachelor-applied-science-research/17-4-applied-baccalaureate-program-growth-employment-outcomes-8-23-17.pdf

Kaikkonen, D. A., & Quarles, C. L. (2018). The effect of earnings on the applied baccalaureate degree. *Community College Review, 46*(4), 347-367.

Kaikkonen, D. A. (2020, February). *Applied baccalaureate graduate outcomes in Washington state.* Powerpoint presentation for the Community College Baccalaureate Association (CCBA) Research Symposium, Seattle, WA.

Meza, E. A. (2019, August). *The community college baccalaureate in Washington: Who enrolls?* (New Baccalaureate Series, Data Note 2). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from https://www.uw.edu/ccri/newba_datanote2/

Meza, E. A. (2020, March). *Growth in enrollment and completion of STEM community college baccalaureate degrees in Washington State* (New Baccalaureate Series, Data Note 6). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from https://www.uw.edu/ccri/newba_dn6/

Meza, E. A. & Bragg, D. D. (2020, January). *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/

Shapiro, D., Dundar, A., Huie, F., Wakhungu, P.K., Yuan, X., Nathan, A. & Hwang, Y. (2017, September). *Tracking transfer: Measures of effectiveness in helping community college students to complete bachelor's degrees (Signature Report No. 13).* Herndon, VA: National Student Clearinghouse Research Center. https://nscresearchcenter.org/wp-content/uploads/SignatureReport13_corrected.pdf

Washington State Board of Community and Technical Colleges (SBCTC). (2020, February 19). Applied baccalaureate degree status, February 2020. Olympia, WA: Author.

NEW BACCALAUREATE DATA NOTES

Bragg, D. D. (2019, January). *The evolving landscape for new baccalaureate degrees in the United States* (New Baccalaureate Series, Data Note 1). Seattle, WA: Community College Research Initiatives, University of Washington.

Meza, E. A. (2019, August). *The community college baccalaureate in Washington: Who enrolls?* (New Baccalaureate Series, Data Note 2). Seattle, WA: Community College Research Initiatives, University of Washington.

Soler, M. C. (2019, November). *Updating the national landscape: State adoption of community college baccalaureate degrees* (New Baccalaureate Series, Date Note 3). Seattle, WA: Community College Research Initiatives, University of Washington.

Meza, E. A., & Bragg, D. D. (2020, January). *Community college baccalaureate degree completion in Washington* (New Baccalaureate Series, Data Note 4). Seattle, WA: Community College Research Initiatives, University of Washington.

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.

Meza, E. A. (2020, March). *Growth in enrollment and completion of STEM community college baccalaureate degrees in Washington State* (New Baccalaureate Series, Data Note 6). Seattle, WA: Community College Research Initiatives, University of Washington.

Meza, E. A., & Bragg, D. D. (2020, June). *Washington bachelor's of applied science graduate employment and earnings outcomes* (New Baccalaureate Series, DataNote7). Seattle, WA: Community College Research Initiatives, University of Washington.

Meza, E. A., & Bragg, D. D. (2020, June). *Comparison of the Employment and Earnings Outcomes of Washington Community College Baccalaureate Graduates and University Graduates* (New Baccalaureate Series, DataNote8). Seattle, WA: Community College Research Initiatives, University of Washington.

CCRI Team: Debra D. Bragg, Director CCRI and Principal Investigator (PI); Lia Wetzstein, Associate Research Director CCRI and co-PI; Elizabeth Meza, Research Scientist and co-PI; and Grant Blume, Senior Lecturer, Evans School of Public Policy and Governance and Research Affiliate of CCRI.

Center for Education and Skills at New America (CESNA) Team: Mary Alice McCarthy, CESNA Director and Principal Investigator; Iris Palmer, Senior Policy Analyst; and Ivy Love, Policy Analyst.

Acknowledgments: *We are grateful for the data-sharing agreement and research partnership between the Community College Research Initiatives (CCRI) group at University of Washington and the Washington SBCTC that enabled this study to be conducted. Special thanks to Darby Kaikkonen, Policy Research Director of the SBCTC; Tim Norris and Andrew Weller of ERDC; Tim Harmon, a workforce research consultant working with our CCB team; and our partners at the Center for Education and Skills at New America (CESNA), Ivy Love, Iris Palmer and Mary Alice McCarthy. This brief would not have been possible without the editorial and production guidance of Theresa (Ling) Yeh and Katie Kovacich. Finally, we thank the Joyce Foundation and Lumina Foundation for their generous support during this challenging time when we at CCRI, along with our partners and colleagues, focus our attention on the pandemic and racial injustices illuminated by COVID-19 and police violence.*

Scaling Community College Baccalaureate Degrees: The Equity Imperative research is funded by the Joyce Foundation and Lumina Foundation.

About the authors: *Elizabeth Apple Meza, Ph.D. is a research scientist of CCRI and Debra D. Bragg is the Director of Community College Research Initiatives (CCRI) at the University of Washington.*

Follow CCRI on Twitter @CCRI_UW and LinkedIn, https://www.linkedin.com/company/ccri-uw/

Suggested citation: Meza, E. A., & Bragg, D. D. (2020, June). *Washington bachelor's of applied science graduate employment and earnings outcomes* (New Baccalaureate Series, Data Note 7). Seattle, WA: Community College Research Initiatives, University of Washington. Retrieved from https://www.uw.edu/ccri/newba-dn7