

NC STATE UNIVERSITY

College of Education
Belk Center for Community College
Leadership and Research

UNDERSTANDING TRANSFER CREDIT EFFICIENCY IN NORTH CAROLINA: CONNECTING BACCALAUREATE DEGREE PLANS TO TRANSFER GRADUATION





Introduction

North Carolina has robust systems of higher education, including 16 four-year public universities and 58 community colleges, supporting over 10,000 students as they pursue a bachelor's degree through transfer each year ([UNC System Interactive Data Dashboard](#)). The Association of Public and Land Grant Universities (APLU) partnered with five institutions in the University of North Carolina System and an evaluation team to examine credit applicability and student outcomes.

The structure of this report offers an introduction to transfer articulation within the context of North Carolina, describes the project and key points of the study, then offers details about the findings and their implications on practice and policy.

Transfer in North Carolina

In 2014 the UNC System Board of Governors and the North Carolina Community Colleges approved a major overhaul to the Comprehensive Articulation Agreement (CAA) which governs the transfer of credit for North Carolina Community College System (NCCCS) graduates who enroll in any of the 16 UNC System institutions after earning an Associate of Arts (AA) or an Associate in Science (AS) degree.

Several studies have been conducted to determine the efficacy of the Comprehensive Articulation Agreement. A recent [study](#) conducted by the Belk Center for Community College Leadership and Research found that the CAA increased degree completion between 5-13% among transfer students and that students transferring with an AA or an AS degree experienced an 11-27% decrease in excess credit accumulation.

Nationally, we know that lower-income students are more likely to begin their academic careers at a community college and also have lower rates of transfer as compared to higher-income students. However, income is only one type of inequity that exists with transfer student success. Black, Latin^{*1}, American Indian are also more likely to begin at a community college and have transfer and completion rates that are much lower than their white and Asian peers (although one should note that the racial/ethnic group “Asian” comprises a host of nationalities and ethnicities).

These students often choose to start at a community college because they believe it is a cheaper option to baccalaureate degree completion. However, students who intend to transfer need to decide what major they plan to pursue and which university they plan to attend soon after arriving at the community college for maximum course alignment.

As part of the statewide updates to the CAA in 2014, universities in North Carolina developed Baccalaureate Degree Plans (BDPs) that provide university- and major-specific guidance for transferable community college courses toward a baccalaureate degree. To understand the impact of BDPs, including the extent to which they are being followed by NCCCS students and whether they are impacting graduation rates among transfer students, evaluation is critical. Thus far, no evaluations like this have been conducted.

Key Points

- In this small pilot study, we found that completing a greater percentage of the BDP did not increase the likelihood of students' graduation overall. Further, we found that completing a greater percentage of the BDP was not significantly associated with an increase in the likelihood of graduation specifically among students of color.
- On average, students had completed 72% of BDP courses before transferring, meaning that students did not take about a quarter of the courses that were recommended before enrolling in the university.
- Only 11% of students had completed all of the community college credits outlined in their corresponding BDP before transferring to the university.

¹ Following Salinas (2020), we use Latin* to refer to individuals that may have been classified as Latinx, Latino, Latina, Latine, or Hispanic using other classification structures and data sources. The term Latin* is respectful of the various linguistic groups that comprise this racial/ethnic identification and is sensitive to a variety of gender identities.



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The Project

The purpose of this collaborative effort was to better understand the relationship between credit alignment based on BDPs and success outcomes for transfer students, particularly those who earned an Associate in Arts (AA) or an Associate in Science (AS) degree before transferring to the 4-year institution.

Collaborators in this evaluation include representatives from the following institutions:

- NC A&T State University
- NC State University
- UNC Charlotte
- UNC Greensboro
- UNC Wilmington

The data for this study consisted of a subset of NCCCS transfer students who enrolled at one of these universities in the fall of 2017.

The evaluation team employed descriptive and logistic regression approaches to answer the following interrelated research questions:

- What percent of students had graduated by May 2021?
- How many students were no longer enrolled as of May 2021?
- How many students had stopped out?
- At the time of enrollment in the university, what percent of transfer students had completed the BDP (with demographic disaggregation)?
- What percent of these transfer students had changed majors after university enrollment?
- How many students (and what percentage) of major changers had graduated by May 2021?
- How does BDP credit applicability affect the likelihood to graduate?
- How does the relationship between credit applicability and graduation vary for students by race and socioeconomic factors?

Qualifications and Limitations

There are several qualifications and limitations that are important to consider when interpreting the study findings. First, the sample of 404 students was restricted to those who transferred into the five participating institutions during the Fall 2017 semester, and all students in the sample had completed an associate degree when they enrolled at the university. Statewide, about a third of community college transfer students complete an associate degree before enrolling in the university.²

Also, most of the students in this sample transferred to their respective four-year institutions from one or two main “feeder” community college partners in the same region. This is an overrepresentation of community college student transfer patterns statewide, where more than half of students do not transfer to their college’s closest partner university.³

Thirdly, the sample was further delimited to students who applied to the university as either a business major, or one other major of the institution’s choosing for comparison purposes. The project chose business majors because each of the universities had a business major that enrolled transfer students. Statewide, business majors make up about 16% of all community college transfer students in public universities.⁴ Finally, baccalaureate degree completion among some students in this cohort may have been affected by the COVID-19 pandemic in the spring, summer, and fall terms of 2020 and the spring term of 2021.



² UNC System Interactive Data Dashboards: Transfer Students
<https://www.northcarolina.edu/impact/stats-data-reports/interactive-data-dashboards/>

³ D'Amico, M., et al., (2022). Transfer student destinations: Mapping geographic diversity and equity patterns in vertical transfer. *Journal of Applied Research in the Community College*, 29(1), 21-33.

⁴ DeSantis, A., et al., (2021). Exploring pathways to completion by field of study for North Carolina Community College Transfer Students. The Belk Center for Community College Leadership and Research. https://belk-center.ced.ncsu.edu/wp-content/uploads/2021/10/Transfer-Report-5_Belk-Center.pdf

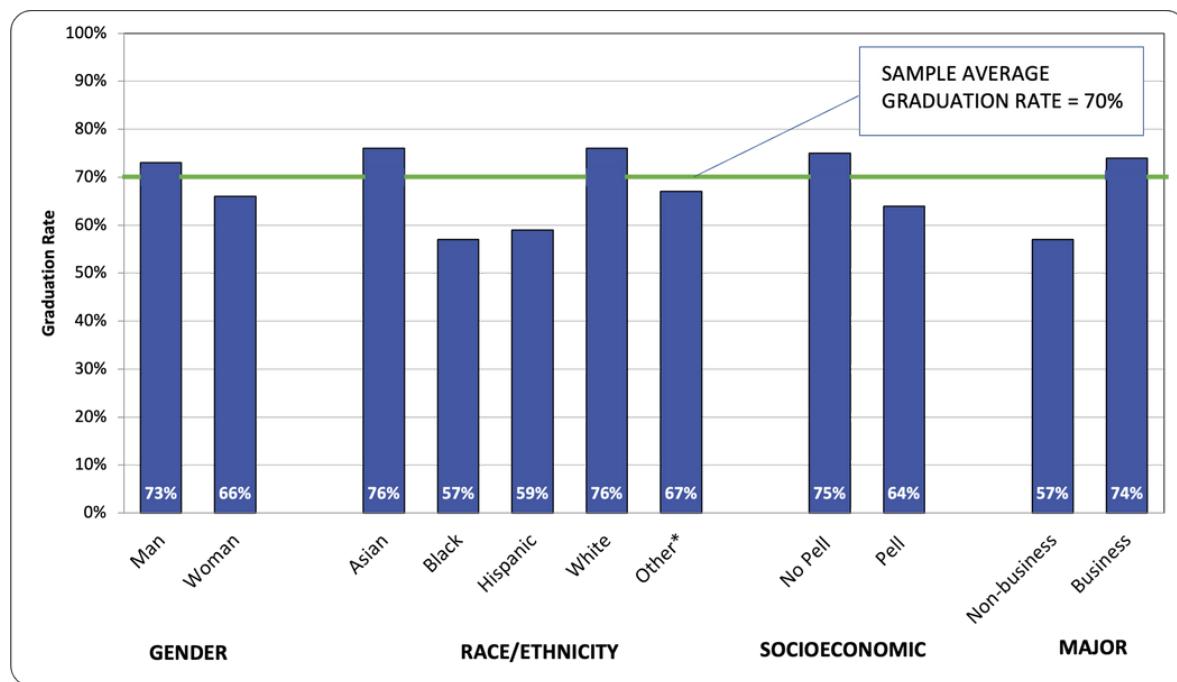
Findings

To understand the relationship between credit alignment based on BDPs, and success outcomes for transfer students, we used data from 404 students who transferred to one of the five universities from an NCCCS institution in the fall of 2017. See Appendix A for a full descriptive table of the student sample.

What percent of students had graduated by May 2021?

The majority (69.6%) of students in this sample graduated within four years of transferring to the university. Black (n=51) and Latin* students (n=71) may face more barriers to transfer degree completion, as graduation rates for these groups are 57% and 59% respectively. Though about half of the sample were Pell eligible students, they graduated at a lower rate (64%) than their non-Pell eligible counterparts (75%).

Figure 1: *Graduation Rates by Demographic Characteristics*



*American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, Two or more races, Race/Ethnicity Unknown

How many students were no longer enrolled as of May 2021?

Eighty-one students (20% of the sample) were no longer enrolled and had not yet graduated as of May 2021, four years after transferring to the university. This is very similar to the statewide proportion of students who began postsecondary education⁵ at a UNC System institution and were no longer enrolled at any UNC System institution four years later (22%). It is possible that some of the students in this sample may have transferred to another institution, but these data did not include that level of detail.

⁵ UNC System Interactive Data Dashboards: Persistence Rates - Retained or Graduated
<https://www.northcarolina.edu/impact/stats-data-reports/interactive-data-dashboards/>

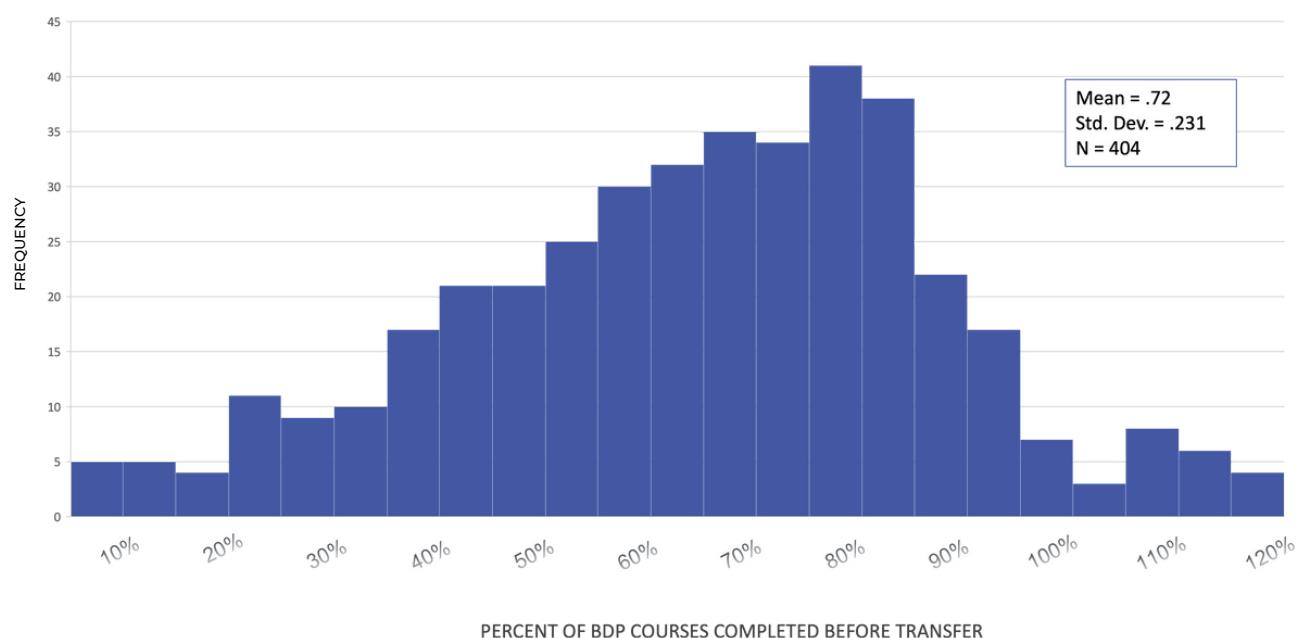
How many students had stopped out?

Eight students from three universities stopped out for at least one year after enrolling, and four of those students subsequently re-enrolled in the university and had graduated by May 2021. The other four students who stopped out had not graduated by May 2021.

At the time of enrollment at the university, what percentage of transfer students in this study had completed the BDP?

Eleven percent of the students ($n=44$) who transferred with their associate degrees in 2017 had completed or exceeded the community college courses listed in their Baccalaureate Degree Plan (BDP). On average, students completed 72% of the BDP, though completion rates ranged from 6% to 122%, as shown in Figure 2. Students who completed more than 100% of the BDP took more than one course that satisfied the same curricular element of the BDP. For example, a BDP may indicate that a history general education requirement may be fulfilled with either History 111 or History 131. Occasionally, students in our study had completed and transferred both courses from their community college to a UNC System institution.

Figure 2. Distribution of Percent BDP Completed by 2017 Transfer Students



We also explored whether certain student characteristics were related to completing a greater percentage of the BDP, and ultimately we found few differences. Men and women completed similar proportions of the BDP, on average. There were also no differences found between white students and Students of Color in proportions of BDP completed and no differences between Pell eligible students and non-Pell eligible students. Students who graduated from the four-year institution completed, on average, 2% more of the BDP than transfer students who did not graduate.

What percent of these transfer students changed majors after university enrollment?

Among the transfer students in our sample, 65% (n=264) graduated with the same major that they had declared when they transferred into the university. Four percent (n=17) of these transfer students changed their major before graduating. Most students who changed their major were among the 123 transfer students who did not graduate (n=15), suggesting that while most transfer students do not choose to change their major after enrolling at the university, those who do may be less likely to graduate in four years.

Table 2: Students who changed majors between transfer and graduation

	Non-Business Majors		Business Majors		Total	%
	n	%	n	%	n	
Graduated with same major as at transfer	216	71	48	48	264	65
Graduated with a different major than at transfer	8	3	9	9	17	4
Did not graduate	80	26	43	43	123 *	30
Total	304	100	100	100	404	100

*15 students who did not graduate changed from their matriculating major at before ceasing enrollment at the university.

How does BDP credit applicability affect the likelihood to graduate?

Holding gender, race/ethnicity, Pell eligibility, and major constant, there was no statistically significant relationship between the percent BDP completed and degree completion. Because of the small number of students identifying as American Indian, Black, Latin*, two or more races, international students, and those who chose not to share their racial identity, these students were grouped together for this part of the analysis. We did find that racially underrepresented transfer students were 15 percentage points less likely than white and Asian students to graduate. Also, transfer students who enrolled as business majors were significantly more likely than those who transferred as non-business majors to graduate.

Table 3: Logistic regression estimate of transfer student graduation

VARIABLES	Graduated	p value
Gender: Women (vs. Men)	-0.02	0.60
Underrepresented Racial Group1 (vs. white & Asian students)	-0.15 **	0.00
Pell eligible	-0.06	0.21
Percent BDP Completed	0.12	0.25
Business Major at University Entry (vs. any other major)	0.15 *	0.01
Pell eligible x Underrepresented Racial Group	0.26 *	0.01

1 - American Indian, Black, Hispanic, International student, Race Unknown, or two or more races

** = p>0.01, * = p>0.05

How does the relationship between credit applicability and graduation vary for students by race and socioeconomic factors?

We also explored whether the relationship between the percent BDP completed and graduation was different based on students' race/ethnicity or major. Ultimately we found no significant effect, suggesting that the impact on graduation of completing more of the BDP is the same (and not significant) for both racially/ethnically underrepresented students and white students. In other words, completing a greater percentage of the BDP does not make it any more or less likely that white students or racially/ethnically underrepresented students will graduate.

Implications on Practice & Policy

We found that 70% of students who transferred to the university in the fall of 2017 with an associate degree graduated within four years. This graduation rate is comparable to the statewide 4-year graduation rate (73%) among students who transferred from a community college.

On average, students in this sample who transferred to the university with an associate degree completed about 72% of the BDP for their major and institution. Only about a tenth of students took all of the courses outlined in their BDP before transferring. This means that most students are finding the right courses for their transfer major, either through academic advisors or by accessing and following guidelines in the BDP. However, students are transferring when they complete an associate degree, whether or not all of the courses associated with their degree align with their BDP. This is likely influenced by the statewide CAA, which grants students who have earned an Associate in Arts (AA) or and Associate in Science (AS) degree 60 transferable credit hours in lower-division general education requirements upon enrollment at the transfer university.

We also found that among students who earned an associate degree prior to transfer, the amount of the BDP that students had completed upon university transfer did not have a statistically significant impact on their likelihood of earning their baccalaureate degree. Again, we suspect that the correlation between the amount of the BDP completed and graduation outcomes are highly influenced by the fact that all students in this sample completed an associate degree and therefore were able to transfer credit for general education requirements under the CAA. This finding suggests that degree pathway documents like BDPs may be especially important for students who have not yet earned an associate degree. Statewide, about 54% of all students who transferred from a public 2-year to a public 4-year institution in NC earned an associate degree before doing so. Future institutional analyses should include students who did and did not complete associate degrees before transferring to determine whether BDP completion has more of an impact on baccalaureate degree attainment among students who did not finish an associate degree.



Access and Clarity of BDPs

Another possible factor influencing BDP completion prior to transfer is whether students saw or used the BDP while they were a community college student. It is difficult to make sweeping conclusions about the connection of BDPs with graduation outcomes in 2017 because it is unclear how accessible the BDPs were to students when they were planning their coursework. Though our analysis did not include surveys or interviews with students, in completing this analysis, the team noted that the BDPs developed by universities vary in form, content, and online location which may impact their accessibility to students and advisors.

- In terms of **form**, BDPs from different universities may be in the form of an Excel spreadsheet, a Word document, or a PDF. They may be color-coded or not, and they may or may not include additional information such as how a particular community college course is applied toward graduation (e.g: major credit or elective).
- In **content**, BDPs for the same major may have different course requirements at different universities. One example of this involves foreign languages for business majors - one university may specify foreign language courses for transfer business majors, while another university may not. Furthermore, the content of BDPs in the same major varies by university in their flexibility. For example, one BDP for business majors lists a single course that can be taken to fulfill the general education social/behavioral science requirement, which another university indicates that any of four different courses would fulfill this same requirement.
- The **online location** of BDPs was the third area of variation that the team noticed. While most universities listed BDPs on their Admissions websites some universities required that students know which university department houses their major in order to view the appropriate BDP. Many community colleges include links to transfer BDPs, but as with their four-year partners, these links can be in different web locations at different colleges.

The implications of this wide degree of variation in BDP form, content, and location for transfer students are significant for students, advisors, and college enrollment professionals. Community college students who are not sure to which university they would be able to transfer would need to possess keen certainty in their own major choice and online navigation savviness to find their BDP. They would first need to know what major they wanted to pursue, search all universities of interest in the state to find the right BDPs, then decipher which of the courses are indicated for each of the different institutions. To maximize their options, the student would need to take classes listed in all possible universities' BDPs, costing additional time and money. A student taking another strategy might focus on only one university's BDP, but risk admission and time if they cannot transfer to that institution.

Recommendations

① ALL UNIVERSITIES IN THE UNC SYSTEM SHOULD CONSIDER DEVELOPING A STANDARDIZED TEMPLATE FOR TRANSFER BDPS, AND STORE THEM IN A CENTRALIZED, SEARCHABLE DATABASE.

Findings in this study suggest that degree pathway information could be shared more clearly with students which may result in higher rates of credit articulation and graduation. The variability of BDPs in their form, content and ease of locating them online may be a barrier for community college students intending to transfer. A first step to address this barrier would be to create a standardized template for BDPS that all public university departments use to populate courses needed for their academic programs. This would allow individual programs at different universities to specify the community college courses needed for transfer success while making the information easier for students to compare and interpret.

The second step would be to shift transfer pathways documents from different sub-pages on each public university's websites to a centralized online location so that students can quickly find curricular guidance for whichever majors and institutions they intend to pursue in one place. The centralized website may be maintained by either the UNC System Office, or another neutral entity.

Ideally, this centralized online location for degree pathway documents like BDPS would be a mobile-friendly, searchable database in which students could enter their current community college and the baccalaureate degree and major they wish to pursue, and the results would populate courses needed and available at their college. California is piloting a mobile-friendly course articulation system called ASSIST to help students establish an appropriate path from their public community college to a public California university in the major of their choice. Developing a similar system for the North Carolina university and community college systems would eliminate much of the uncertainty associated with transfer, and may encourage more community college students to pursue their baccalaureate degree.

② REPLICATE BDP CREDIT ALIGNMENT ANALYSIS AT THE INSTITUTION LEVEL.

In 2023, the UNC System Office and many of the system's universities will be refreshing their strategic 5-year plans, including efficiency benchmarks for transfer student graduation. Universities may find that replicating this type of BDP completion analysis would focus institutional efforts to improve transfer efficiency and graduation rates. Using an approach similar to this analysis, institutional research or enrollment teams could compare alignment between course pathway documents and actual student course-taking behavior, which would illuminate particular majors and disciplines that may present additional barriers to transfer success.

By replicating this study, institutions could add nuance to aggregated graduation data by showing which students within which majors are having higher and lower levels of success. Appendix B in this report details instructions for institutional research and enrollment teams to evaluate their transfer student population and alignment with BDPs in high-volume majors.

③ USE BDP ANALYSIS DATA TO INFORM INSTITUTIONAL TRANSFER POLICY AND PRACTICES.

Replicating this analysis may also help guide institutional policy regarding BDP communication. For example, after an institution looks at the course-taking behaviors in their most common major for transfer students, the institution may decide to add more or less course flexibility in their BDP.

Even more importantly, using the institutional insights of a course-level analysis would uncover which classes within a program curriculum are either supporting or presenting challenges to students. Are these courses major-requirements, or general education requirements? Are the courses transferred from a community college sequentially specific, or could they be taken in a different order? Answering these questions would not only inform policy but also advising practices at both the university and the community colleges.

This type of analysis may also prompt universities to set up flags in their student data systems based on how many and which courses are transferring from the community college. If a similar analysis shows a threshold number of BDP courses or a particular transferred course that predicts graduation success, the university may use a flag system to mobilize additional supports for students who do not yet meet that threshold.



Conclusion

The purpose of this multi-institution study was to better understand the relationship between credit alignment based on BDPs, and success outcomes for transfer students, particularly those who earned an Associate in Arts (AA) or Associate in Science (AS) degree before transferring to the 4-year institution.

Our findings showed wide variation in the percentage of BDP-recommended courses that were transferred to the university, but no significant differences in graduation outcomes among the sample who had all completed an associate degree before transferring. We recommend that the study be replicated at individual institutions and incorporate community college transfer students with and without a completed associate degree.

Further, we found that the level of variation in the form, content, and location of BDPs at different universities may hinder students' abilities to use them as planning tools, and therefore recommend that all universities in the public system develop a single BDP template and store all BDPs in a single, searchable online database.

Further Reading

- North Carolina Comprehensive Articulation Agreement:
<https://www.nccommunitycolleges.edu/academic-programs/college-transferarticulation-agreements/comprehensive-articulation-agreement-caa>
- Loss, J. E. (2021). *Does the CAA Need Further Revision? - Perspective from a Scholar Practitioner*. Raleigh, NC: Belk Center for Community College Leadership and Research.
https://belk-center.ced.ncsu.edu/wp-content/uploads/2021/08/Loss_Perspective-Brief.pdf

APPENDIX A

Table 1: *Sample Descriptive Information*

	% Total Sample	n
Gender		
Man	0.51	206
Woman	0.49	198
Total	1.00	404
Race/Ethnicity		
American Indian	0	2
Asian	0.09	37
Black	0.13	51
Hispanic (Any Race)	0.18	71
White	0.5	200
Two or more races	0.05	20
International	0.04	18
Race/ethnicity Unknown	0.01	5
Total	1.00	404
Pell Eligible		
Not Pell Eligible	0.5	203
Pell Eligible	0.5	201
Total	1.00	404
Entering Major		
Non-business Major	0.25	100
Business Major	0.75	304
Total	1.00	404
Graduation Status		
Graduated	0.7	281
Did Not Graduate	0.3	123
Total	1.00	404

APPENDIX B

Procedures for Analysis Replication at the Institution Level

University offices of institutional research may choose to replicate this study on their own campuses to monitor the progress of all transfer students, or students within particular programs.

Determining the goal your institution is working toward

Institutional leaders and research offices may begin by clarifying the goals of an analysis on their campus. The following questions may guide the group toward clarifying their goals.

- How are transfer student outcomes aligning with institutional or enrollment goals and strategic plans?
- Are there particular majors in which transfer students are more or less able to succeed?
- Are there departments/majors that serve a larger portion of the student population?
- Will certain departments/majors be reviewing their curriculum in the near future?
- Is there a partnership with a two-year college that the institution wants to strengthen?

Delimitations and considerations

An analysis of credit articulation requires aligning students' courses with their chosen bachelor curriculum.

Therefore, the most useful application of this type of analysis is limited to a few degree programs that have the highest level of impact at your institution, of the highest number of transfer students.

- *Which majors will you focus on?* We recommend analyzing at least two majors to provide a point of comparison.
- *Which cohort year(s) to include?* Keep in mind any state or institutional policies that may affect graduation outcomes. For example, in North Carolina, BDPs were available in 2016, so our analysis needed to consider students who transferred to a university after that year.
- *Does your institution differentiate between transfer students who have earned an associate degree before entering the university?* Consider whether the policies and experiences of transfer students differ at your university depending on if the student earned an associate degree before transferring, or transferred to the university before completing a credential. If your institution has different admissions or enrollment policies for transfer students with an associate degree, include this data in your analysis.
- *What considerations from the community college student's perspective need to be taken into account?* Examine your institution's BDP/Pathway plan and determine whether all prescribed community college courses are offered regularly at the colleges students attend before transferring. Is it clear what community college courses the student would register for to follow the pathway? How much flexibility exists to meet certain requirements?
- *Are you interested in all community college BDP/Pathway courses, or only certain, major-specific courses?* Consider whether it is more useful for your institution to know about credit articulation in major-specific critical courses (ex: Calculus I for engineering majors) or if your institution wants to find out about credit articulation in all types of pre-transfer courses.
- *Are there partnerships between community colleges and universities that are of particular interest?* Consider whether it makes sense to focus on students from those partner institutions or all transfer students.

Data Needed

Once you have identified the goals and limitations of the analysis, the following enrollment data is needed.

- *Population information* may include the following information
 - Student ID
 - Year of entry at the university
 - Community college name/ID attended before university enrollment
 - Student major at the time of enrollment
 - Graduation flag and/or term of graduation
 - Major at point of graduation
- *Transcript data* includes the courses that students earned in the community college. This is a long dataset that includes one line per student, per course.
 - Community college subject & course number
 - University equivalent course subject & number.
 - If you are able to pull attempted transfer credits AND credits applied, that is also helpful.
 - Number of credits earned for each course. These are sometimes referred to as "credit hours" and are often 1, 3, or 4 per course.
 - How the transfer credit applied (elective or major credit) to the student's bachelor's degree progression.
 - It is also possible to do an analysis that goes beyond this pilot study - use not only transferred courses, but university enrolled courses. The benefit of including this data would be to look for possible patterns in duplication of particular course credits.
- *BDPs* - Baccalaureate degree plans (or Pathway documents, Transfer Guides, etc) are often specific to the university and major, and identify the recommended course progression for transfer students interested in that major. Be sure to find out if the BDP/Pathway for a particular major has changed over the years, and include the version that would have applied to the cohort of students included in your analysis.

Tagging BDP transferred courses

We used Stata software to clean and prepare data for this analysis. Within the transcript dataset, we recommend tagging courses for students within one major at a time.

- Apply a numeric tag (1) to all community college courses listed in a particular BDP/Pathway. Courses listed in the transcript dataset that are not included in the BDP/Pathway would be coded as "0".

Calculating the percent of the BDP completed at the point of transfer

- Generate a field that sums course credit hours of all tagged community college courses by student ID. (Ex: This field would be "6" for a student who transferred a total of 2 BDP courses that were each 3 credit hours.)
- Identify the total number of community college credit hours identified in the BDP/Pathway.
- Create a field for each student ID that divides the total number of course credits transferred by the total number of course credits identified in the BDP/Pathway. This is the percentage of the BDP/Pathway completed by the student.
- Compress this field to one observation per student and merge this into the student population dataset.
- Repeat the tagging process and calculation for each major in the analysis.

Regression analysis with controls

- After analyzing the variation in graduation rates among transfer students by demographic information, major, and the percentage of BDP/Pathway courses completed upon transfer, consider running a regression analysis to determine the degree to which those factors are associated with transfer graduation.

APPENDIX C

Redacted Examples of BDP plans for Business Majors

In completing this analysis with five different institutions the authors noted the marked differences in BDP content, format, and specificity that exists between the five institutions for the same major. If students are not sure which university they would be able to transfer into from their community college, they would need to navigate different BDP documents for the same major. This appendix displays redacted images of business BDPs for each institution to demonstrate the differences as viewed from a community college student's perspective.

Image 1:

North Carolina Community College classes are listed below in bold with (AA Requirement Sections). The [REDACTED] degree requirements fulfilled listed next to the classes.

The [REDACTED] strongly recommends students complete their Associate's degree prior to transferring to [REDACTED] pathways are structured for students who have completed all requirements for their Associate's degree and qualify for the CAA. U [REDACTED] recommends that transfer students complete the Foreign Language Requirements prior to enrolling at [REDACTED]

NC COMMUNITY COLLEGE- FIRST YEAR			
Fall Semester	Credit	Spring Semester	Credit
ENG 111 (English Composition) – ENG 101	3	ENG 112 (English Composition) – ENG 201	3
Foreign Language 111 (Additional General Education Courses) – FL 101	3	Foreign Language 112 (Additional General Education Courses) – FL 102	3
(UGETC Social/Behavioral Science) ¹	3	MAT 171 (Mathematics) – MAT 111	4
ECO 251 (UGETC Social/Behavioral Science) – ECN 221	3	(UGETC Humanities/Fine Arts) ²	3
ACA 122 (Required Courses) – Elective	1	ECO 252 (UGETC Social/Behavioral Science) - ECN 222	3
TOTAL CREDIT HOURS	13	TOTAL CREDIT HOURS	16

Students may also elect to take courses during the summer, pending availability.

NC COMMUNITY COLLEGE- SECOND YEAR			
Fall Semester	Credit	Spring Semester	Credit
ACC 120 (Elective) – ACG 201/L	4	ACC 121 (Elective) – ACG 203	4
Foreign Language 211 (Additional General Education Courses) ³ – FL 201	3	MAT 152 (Elective) - STT 215	4
HUM 220 or HUM 230 (Required Courses) - Elective	3	(Natural Sciences) ⁴	4
MAT 263 (Additional General Education Courses) - MAT 151	4	(Communications) ³	3
(UGETC Humanities/Fine Arts) ²	3		
TOTAL CREDIT HOURS	17	TOTAL CREDIT HOURS	15

¹(UGETC Social/Behavioral Science); student can take HIS 111, HIS 112, HIS 131, HIS 132, POL 120, PSY 150 or SOC 210

²(UGETC Humanities/Fine Arts); student can take ART 114, ART 115, MUS 110, MUS 112, DRA 111, ENG 231, ENG 232, ENG 241, ENG 242, PHI 215 or PHI 240

³(Communications); student can take COM 120 or COM 231

⁴(Natural Sciences); student can take BIO 110, BIO 111, CHM 151, GEL 111 or PHY 110/110A

Image 2:

2020-2021 Pathway for Bachelor of Science in Management (Business Administration)							
<i>Please see your academic advisor to develop your individual plan. This is only meant to be a guide.</i> A maximum of 64 hours is transferable from a North Carolina Community College.							
Freshman/First Year				Second Semester - Spring			
CC Course	Equivalent	Credit Hours	Required/Notes	CC Course	Equivalent	Credit Hours	Required/Notes
ENG 111	ENGL 100	3	UGETC: Eng Comp-AA/AS	ENG 112	ENGL 101	3	UGETC: Eng Comp-AA/AS
Scientific Reasoning Elective w/ Lab1	Scientific Reasoning Elective w/ Lab	4		MAT 263	MATH 112	4	UGETC: Math- AS
ACA 122	FRST 101	1	AA/AS Req. Course	Scientific Reasoning Elective w/out lab1	Scientific Reasoning Elective w/out lab	3	
BUS 110	MGMT 110	3	Pre-Major/Elective		BUAN 132	3	
	MATH 111	4			Free Elective	2	
Total Credit Hours		15		Total Credit Hours		15	

Sophomore/Second Year							
Third Semester - Fall				Fourth Semester - Spring			
CC Course	Equivalent	Credit Hours	Required/Notes	CC Course	Equivalent	Credit Hours	Required/Notes
ECO 251	ECON 200 (Satisfies Social & Behavioral Sciences Elective)	3	UGETC: Soc/Beh Sci-AA/AS	ECO 252	ECON 201 (Satisfies Social & Behavioral Sciences Elective)	3	UGETC: Soc/Beh Sci-AA/AS
BUS 137	MGMT 201	3	Pre-Major/Elective		MKTG 230	3	
	ECON 205	3		ACC 121	ACCT 222	3	Pre-Major/Elective
ACC 120	ACCT 221	3	Pre-Major/Elective		African Amer. Culture & Hist Elective	3	
Humanities & Fine Arts (HFA) Elective2	Humanities & Fine Arts (HFA) Elective	3	UGETC: Hum/Fine Arts- AA/AS		MGMT 221 (Satisfies Global Awareness Elective)	3	
Total Credit Hours		15		Total Credit Hours		15	

Image 3:

<p>North Carolina Community College classes are listed below in bold with the [REDACTED] degree requirements fulfilled listed next to the classes.</p> <p>[REDACTED] strongly recommends students complete their Associate's degree prior to transferring [REDACTED]. Pathways are structured for students who have completed all requirements for their Associate's degree and qualify for the CAA. The [REDACTED] recommends that transfer students complete the Foreign Language Requirement prior to enrolling at [REDACTED].</p>																													
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<p>Based on Requirements for students entering [REDACTED] Fall 2017 or after</p>																													

Image 4:

Additional Requirements Special Note for Admission to the upper division in major:		Requirements for admission to the upper-division major include the following: •Junior standing (60 credit hours or more) •A minimum grade of C, within two attempts, in all Progression Courses (Progression Courses are denoted by **) •Minimum 2.5 Overall GPA and Minimum 2.5 Progression Course GPA (all attempts are calculated into the Progression GPA)																											
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Image 5:

semester	NCCC course	credits	equivalent
	ENG 111	3	ENG 101
	UGETC H/FA	3	
1	UGETC S/BS: ECO 251	3	ECO 201
	UGETC Math: MAT 171 ¹	4	MAT 150
	CIS 110	3	ISM 110
	ACA 122	1	ELE 000
		17	
	ENG 112	3	ENG 102
2	UGETC H/FA: COM 231	3	CST 105
	UGETC S/BS: ECO 252	3	ECO 202
	MAT 263	4	MAT 120
	Free Elective	1 to 3	
		14-17	
	UGETC Natural Science	4	
	UGETC H/FA	3	ENG 251 or ENG 252
3	UGETC S/BS: HIS 111 or 131	3	HIS 211 or HIS 207
	ACC 120	4	ACC 201
	Free Elective	1 to 3	
		15-18	
4	Additional Gen Ed	3	
	BUS 228	3	ECO 250 ²
	ACC 121	4	ACC 202
	Free Elective	3	
		13	

Report Title

Understanding Transfer Credit Efficiency in North Carolina: Connecting Baccalaureate Degree Plans to Transfer Graduation

Authors

- Holley Nichols, Ph.D., Belk Center Senior Research Associate and Policy Analyst
- Kaitlin Newhouse, Ph.D., Belk Center Senior Research Associate

About the Belk Center

The Belk Center for Community College Leadership and Research, at North Carolina State University, develops and sustains exceptional community college leaders who are committed to advancing equitable college access and student success, the social and economic mobility of their colleges' students, and the economic competitiveness of their regions. The Center provides professional development and research related to current and emerging student success opportunities and challenges facing community college leaders and policymakers in North Carolina and the nation. The Belk Center commits to dismantling systemic barriers to racial equity in education through evidence-based strategies that focus on the outcomes of Black, Latin* and American Indian students ([read our full Commitment to Equity here](#)).

About the John M. Belk Endowment

Based in Charlotte, North Carolina, the John M. Belk Endowment is a private family foundation committed to transforming postsecondary educational opportunities to meet North Carolina's evolving workforce needs. Its mission is aligned with the vision of its founder, the late John M. Belk who served four terms as mayor of Charlotte and was CEO of the department store company Belk, Inc. He created the John M. Belk Endowment in 1995 to fund a national merit scholarship program for his beloved alma mater, Davidson College. Now led by Mr. Belk's daughter, MC Belk Pilon, the John M. Belk Endowment continues to partner with innovative, results-oriented programs in North Carolina to further Mr. Belk's values, legacy, and focus on the value of education as a means to personal fulfillment and community vitality. For more information, please visit <http://jmbendowment.org>.

Acknowledgments

The data used in this report was developed by a task force of professionals representing the five university participants, including the following individuals:

- Dr. Samantha Raynor, (Chair) Assistant Vice Provost for Strategic Student Success Initiatives at UNC-Greensboro
- Dr. Jess Boersma, Associate Dean for Student Success & Applied Learning at UNC-Wilmington
- Dr. Charles Clift, Assistant Vice Provost and University Registrar, NC State University
- Amanda Fleming, University Registrar, UNC-Wilmington
- Dr. John Smail, Dean of University College, UNC-Charlotte
- Dr. Regina Williams Davis, Provost and Vice Chancellor for Academic Affairs, NC A&T State University
- Dr. Carrie Zelna, Associate Vice Chancellor, NC State University.

Edits for this report were provided by Dr. Audrey Jaeger and Lauren McGuire from the Belk Center, and Dr. Jonathan Loss, North Carolina Transfer Advisory Committee co-chair and Dean of Enrollment Management at Catawba Valley Community College, who also serves as a Belk Research Affiliate at the Belk Center.

Suggested Citation

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Contact: Holley Nichols, Ph.D., hbnichol@ncsu.edu