

North Carolina Transfer Enrollment Patterns: A Data Snapshot

MARK M. D'AMICO

THE UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

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About the Project

The Transfer Research Team at UNC Charlotte has been engaging in a two-year project funded by the John M. Belk Endowment conducting explorations into community college (CC)-to-university transfer in North Carolina (NC). Current project components underway include a large-scale qualitative study to capture transfer student voices prior to and following their transfer experience and a study exploring relationships between prospective transfer students' responses on the Community College Survey of Student Engagement and their CC and transfer outcomes. This report shows some of the foundational data on vertical transfer enrollment patterns in NC which led us to embark on this project. For this inquiry, we focused on two central questions:

- Is community college-to-university transfer a local process?
- What is a transfer credential?

Background

Vertical transfer is a critical component of the higher education landscape; however, prior research shows that nationally too few students transfer and attain the baccalaureate.¹ In NC, state leaders have gone to great lengths to ease the transfer process. For instance, the Comprehensive Articulation Agreements (CAA) between the NCCCS and both the UNC System and the North Carolina Independent Colleges and Universities have set a course for students pursuing traditional transfer degrees such as the Associate in Arts (AA) and Associate in Science (AS). Central to this plan is the inclusion of 30-credit hours of core classes that comprise the Universal General Education Transfer Component (UGETC).^{2,3} Beyond the first 30 credit hours, pre-major requirements are set by each university and made available through university-specific baccalaureate degree plans (BDPs) for identified majors. These plans are not universal across universities except for a handful of uniform articulation agreements that align curricula among signatory universities.⁴

Given the reliance on university-specific pathways, NC's credit mobility policy is largely institution-driven rather than a true 2+2 model.⁵ The challenge with this model is that students (and their advisors) are best served by knowing both their destination university and their intended major by the end of the first 30 credit hours. With much focus in the transfer literature on developing institutional partnerships, which can be nurtured for the benefit of students^{6,7}, it is important to consider whether the transfer ecosystem is indeed predominantly a network of local interaction and if policy that is intended to optimize transfer matches student enrollment patterns. The data presented in this brief are intended to explore the geographic nature of transfer patterns in NC and whether the credentials covered in the recommended paths are consistent with student behaviors.

Current Study

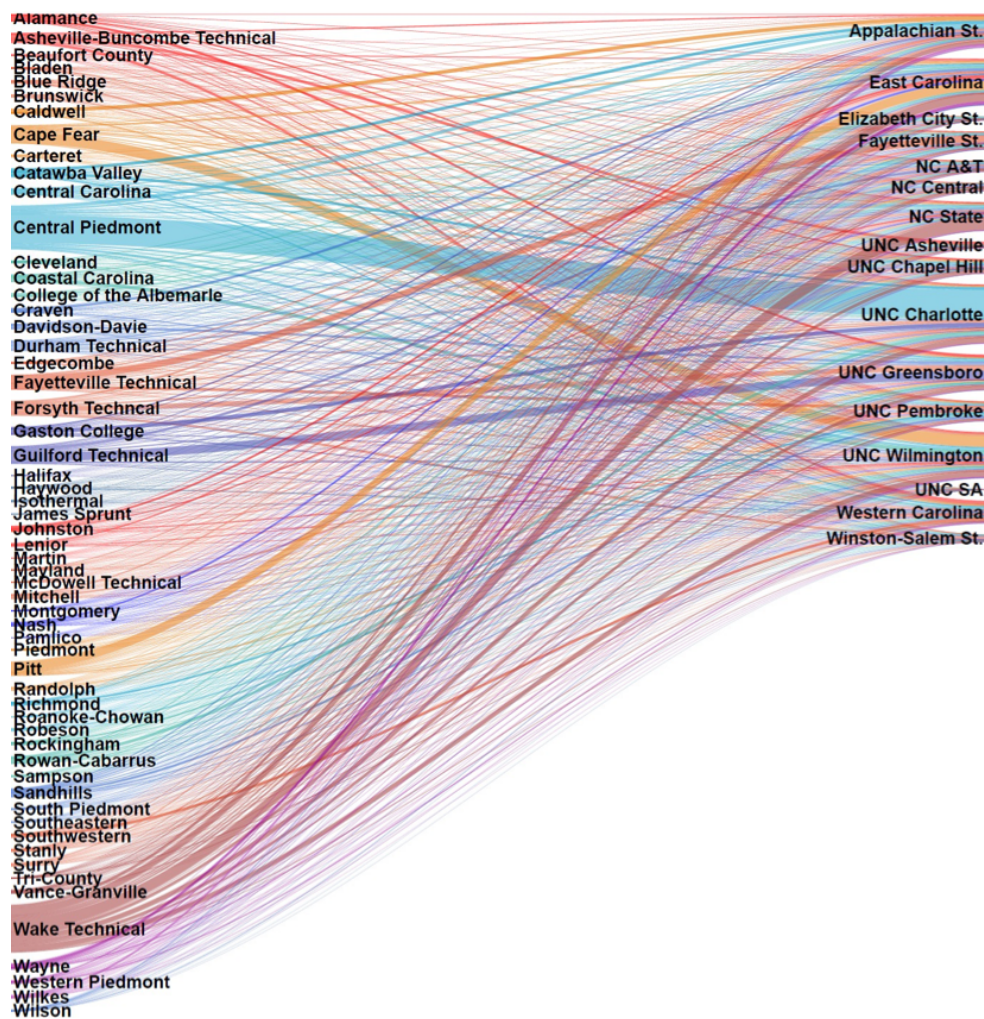
The data used for the current study are publicly available through the UNC System's Interactive Data Dashboards.⁸ The data have been captured from the dashboards and then separately compiled, tabulated, and represented graphically as follows:

1. The transfer data were disaggregated by state institution to determine the enrollment patterns from each of the 58 CCs to the 16 UNC campuses.
2. The primary feeder pattern was identified as the most common destination among transfer students from each community college and a statewide figure was calculated to determine the percent of students following primary feeder patterns.
3. The number of community colleges that had a primary feeder pattern with each of the 16 UNC campuses was then determined.
4. Next was a calculation by UNC campus of the number of CCs that transferred at least one student.
5. A look at the credentials (or lack of credentials) earned at the time of transfer was then tabulated.
6. The final analysis showed the percent of students who transferred with an Associate in Applied Science (AAS) degree, which is typically more associated with career preparation than transfer. An important step was assigning each CC geographic service area a level of economic distress based on the 2020 County Tier Designations reported by the NC Department of Commerce. While these designations change over time, 2020 was selected for classification as a mid-point in the years represented (2019-2021). The assignments included Tier 1 (most economic distress) to Tier 3 (least economic distress). Institutions serving multiple counties representing different distress levels were assigned hybrid tiers (e.g., 1/3).

Findings

Figure 1 is a graphic representation of a single year of CC to UNC transfer (approximately 10,000 transfer students represented). Thicker lines show more predominant patterns. The most predominant paths in Fall 2021 included Central Piedmont CC to UNC Charlotte both in Mecklenburg County (742 students), Wake Technical CC to NC State both in Wake County (307 students), and Cape Fear CC to UNC Wilmington in the Wilmington metro area (271 students). The top five patterns account for nearly 18% of all vertical transfers in NC. However, these patterns are not the norm. In fact, 373 of 691 populated paths (54%) had no more than five students, which accounts for the many thin lines between CCs and UNC campuses. A combination of both large and small distributions among destinations can also be seen in analyses of other states¹⁰.

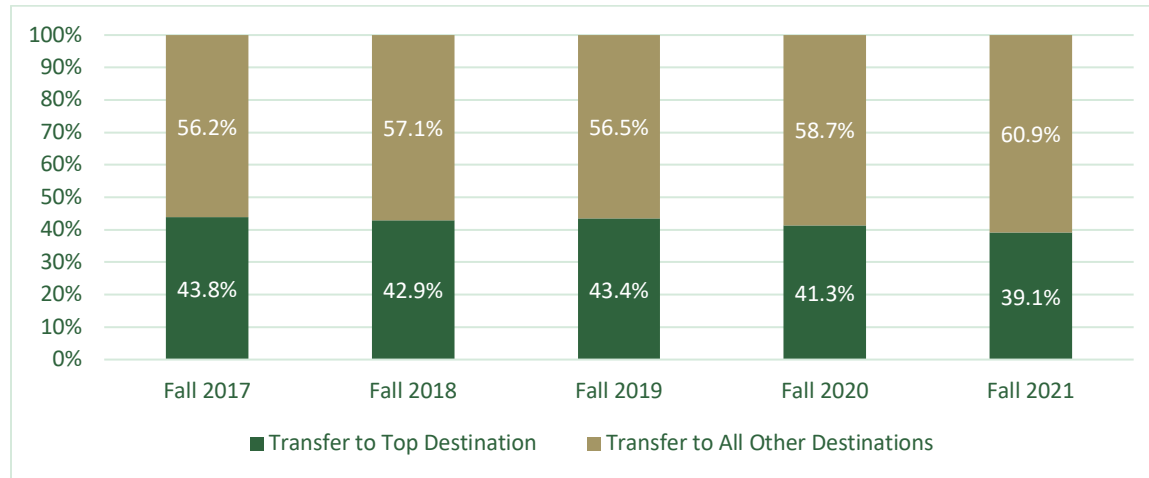
FIGURE 1 – VERTICAL TRANSFER ENROLLMENT PATTERNS FROM NC COMMUNITY COLLEGES TO UNC CAMPUSES



Considering that there were 691 distinct CC to university paths in Fall 2021, it may not be surprising that fewer than half of students follow “primary feeder patterns” (e.g., Pitt CC to East Carolina University, both located in Pitt County, or the examples above). Figure 2 shows that over the past five years, the percent of vertical transfer students between public sectors in NC following the primary feeder pattern has been below 50% and is declining. For the first time in years analyzed, the number dropped to below 40% in Fall 2021. To put it another way, fewer than two out of five vertical transfer students are following the primary

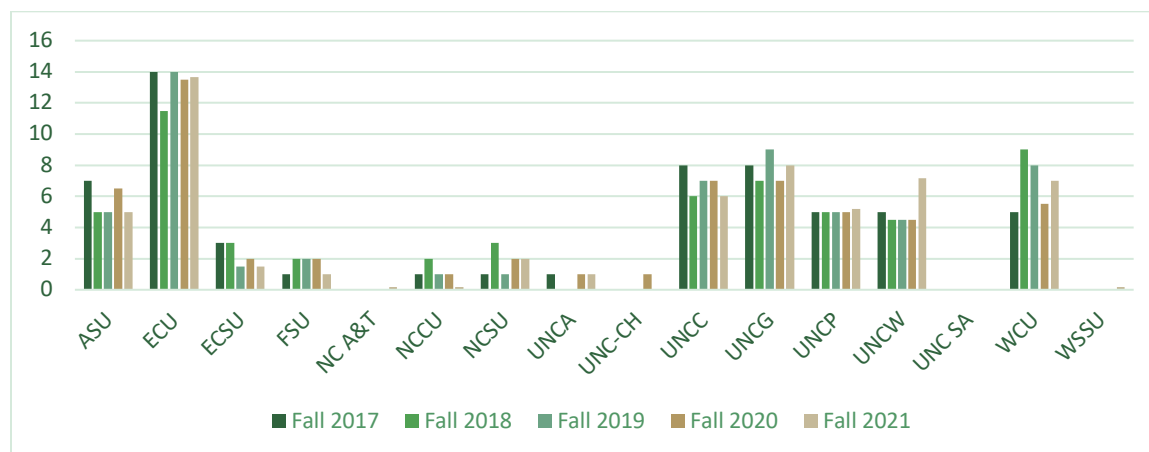
patterns, which can present challenges for students and advisors when students from community colleges are following multiple transfer options. A notable example is Central Carolina CC, where only 14% of students followed the primary pattern, as they are in a location without a UNC System campus in their counties but with several campuses within a 60-mile radius perhaps giving students multiple choices. In Fall 2021, Central Carolina’s 210 transfer students transitioned to 14 different public universities in NC.

FIGURE 2 – PERCENT OF VERTICAL TRANSFER STUDENTS FOLLOWING THE PRIMARY FEEDER PATTERN (NCCCS TO UNC)



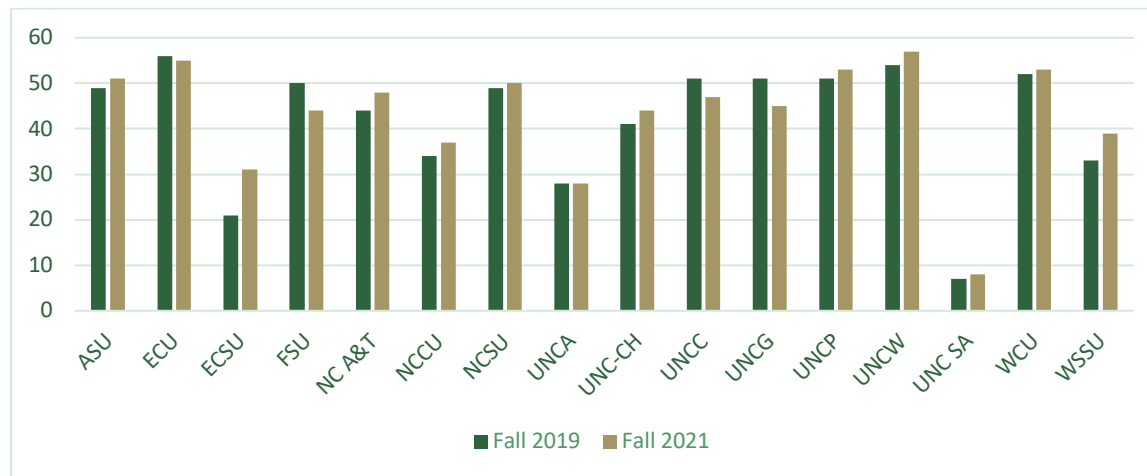
While many of the transfer patterns are consistent and stable, Figure 3 shows that fluctuations in primary feeder patterns do occur. Across the 16 UNC Campuses, 15 have had changes in their status as the primary destination university over the past five years. The one exception is NC School of the Arts, which has very low numbers of transfer students each year. There are two notable examples. The first is Western Carolina University, which went from being the primary destination of five CCs in Fall 2017 to nine in Fall 2018 (the number has declined in recent years). This was likely attributable to the implementation of NC Promise¹¹, which offers significant tuition discounts to attend selected UNC System campuses. The other is UNC Wilmington, which increased from 4.5 (due to a tie with another institution) to seven from Fall 2020 to Fall 2021. It is important to note that even if a university is not the primary destination, it can still receive many students from community colleges. For example, the primary feeder pattern from Guilford Technical CC (GTCC) is to UNC Greensboro (217 students in Fall 2021), but NC A&T, also located in Guilford County, received 72 students from GTCC in the same year.

FIGURE 3 – TOP UNC CAMPUS DESTINATION OF TRANSFER STUDENTS BY NUMBER OF NC COMMUNITY COLLEGES



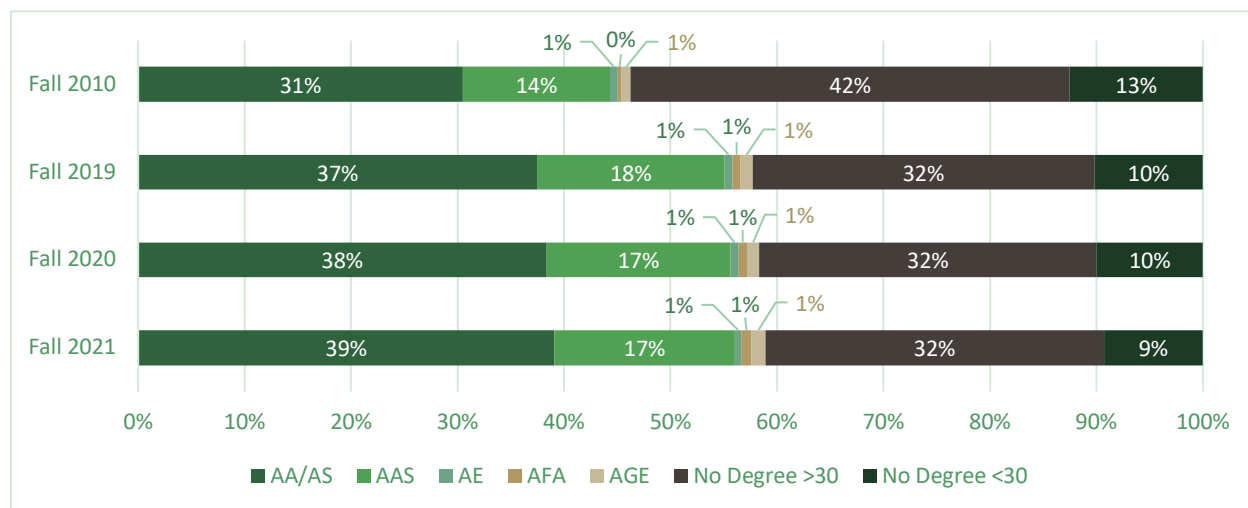
The transfer destinations can also be seen by looking at how many community colleges send students to each of the UNC campuses each year. Figure 4 shows that 11 of the 16 campuses received transfer students from at least 40 different CCs in Fall 2019 and Fall 2021.

FIGURE 4 – NUMBER OF SENDING COMMUNITY COLLEGES BY UNC CAMPUS



Another consideration in the transfer landscape includes the degrees with which students transfer. Figure 5 shows that over the past 11 years, the percentage of students transferring from NCCCS to UNC campuses with associate degrees has increased considerably. Though Figure 5 shows a shift in proportions of students transferring by credential and/or credit hours, there is growth in all areas showing an overall increase in degree earning prior to transfer from 2010 to 2021. The most significant growth among the large groups include 79% growth in AA/AS graduates and 71% growth among AAS earners (details can be seen in the UNC System dashboards). It is also noteworthy that there have been declines in most groups from 2019 to 2021, largely attributable to changes in college attendance in the pandemic.

FIGURE 5 – NCCCS TO UNC SYSTEM TRANSFER PREVALENCE BY DEGREE STATUS



Another piece of the transfer puzzle is specific to both AAS earning and geography. When considering the transfer of students with an AAS degree, a credential typically associated with career preparation, there is an interesting pattern involving the level of economic distress of their sending CC's geographic

service area. Higher proportions of students from more economically distressed (e.g., Tier 1) service areas are transferring with the workforce-oriented AAS degrees compared with students transferring from less economically distressed (e.g., Tier 3) areas. The greatest contrast in Fall 2021 shows that 26.5% of CC transfers from Tier 1 service areas make the transition with the AAS. Comparatively, it is only 10.2% from the least distressed areas (see Figure 6).

FIGURE 6 – AAS TRANSFER

Service Area Tiers**	Number of Colleges	Percent of Transfers with an AAS		
		Fall 2019	Fall 2020	Fall 2021
Tier 1 (Most Distress)	20	24.6%	26.5%	26.5%
Tier 1/2	7	24.1%	23.1%	23.9%
Tier 2	13	20.5%	19.5%	19.2%
Tier 1/2/3, 1/3	3	13.1%	12.3%	12.2%
Tier 2/3	7	20.1%	19.3%	18.9%
Tier 3 (Least Distress)	8	11.0%	9.9%	10.2%

Implications and Recommendations

Is Community College-to-University Transfer a Local Process?

Implications

The answer to this question is both yes and no. The data clearly show that there are strong local connections with most of the primary transfer patterns occurring between institutions in close geographic proximity. However, it is also clear that not all transfer occurs through the primary paths. With only 39.1% of transfer students following the primary feeder patterns in Fall 2021, with primary patterns fluctuating, and with the majority of UNC campuses welcoming students from more than 40 different CCs each year, transfer represents an ecosystem much broader than local or primary partnerships. It will be important to watch these patterns in the future with additional drivers for transfer decision making to include the availability of online programs and the expansion of NC Promise.

Considering that the state’s comprehensive articulation agreements generally rely on university-specific course-taking requirements beyond 30 credit hours, prospective transfer students must either know their destination university early in their community college journeys or be aware of multiple plans along the way to ensure seamless credit mobility. In addition, transfer advisors must be aware of students’ aspirations, destinations, and desired majors to individually advise each student. It is increasingly concerning, as seen in our previous brief¹², that only 55% of surveyed students sought transfer advising and only 68% developed a transfer plan in the first year. With 691 distinct CC to university paths in Fall 2021, not even factoring in students who transfer to private universities, and countless majors within each, we are seeing evidence of a complex environment for students and the institutions aiming to guide them.

Recommendation: Universal Transfer Pathways

Each of the data points on transfer destinations shows that achieving consistency across transfer paths could benefit students by those from all CCs following the same major-specific pathways rather than the current university-specific BDPs. The key idea is to have articulated paths that are both structured¹³, like with the current BDP system, but also universal across destination universities. It seems unrealistic to think that consistent paths could be created for all majors; however, selected majors that are relevant to NC's economy would demonstrate a strong commitment to support transfer students and meet the needs of employers.

We have seen that this approach is possible. System and campus leaders have created Uniform Articulation Agreements between NCCCS and the UNC System for Early Childhood Education and Engineering; between NCCCS and the UNC System and NCICU for Fine Arts, Teacher Preparation, and Nursing; and between NCCCS and NCICU for Psychology and Sociology.

What is a Transfer Credential?

Implications

With growth across all credential areas prior to transfer, it is clear that students are choosing varied options (e.g., AA/AS, AAS, no degree). Prior research has also shown that pre-transfer attainment is associated with different four-year, post-transfer graduation rates with students who earn transfer-oriented associate degrees typically graduating at the highest rates¹⁴. However, considering the significant proportion of students receiving AAS degrees in more economically distressed counties, facilitating their success becomes an issue of economic mobility. Our team's current project using qualitative data to capture the experiences of students in their own voices seeks to explore further the decision-making processes and motivations of AAS-pursuing students¹⁵. Perhaps it is important to not only discuss the paths that students should follow, but rather work to meet student demand by creating transparent and efficient pathways to the baccalaureate for all transfer students, including those with AAS degrees.

Recommendation: AAS Pathway Transparency

At present, AAS transfer presents challenges for both students and advisors seeking seamless paths to the baccalaureate. While some of the uniform agreements (e.g., Early Childhood Education, Nursing) address specific applied associate degree areas and many institutions have worked to provide additional AAS pathways, the decision to transition courses in AAS degrees beyond typical transfer courses that are included in the CAA is dependent on each baccalaureate-granting institution. Also, there is no one place to find a link to the many bilateral articulation agreements that exist between individual CCs and universities. While the CAA invites bilateral agreements between institutions, the document also explicitly states that the Transfer Advisory Committee (TAC), the group that works directly with the CAA, "will not maintain a current inventory of bilateral articulation agreements for AAS degree programs." Whether it is the TAC or another group, enhancing transparency through a single repository of AAS transfer options statewide could potentially ease the process and show students with expanding aspirations that a baccalaureate degree is within reach.

Next Steps for Research

Although reviewing enrollment patterns and credentials prior to transfer offers insights into student decision-making processes, additional work is needed to understand the nuances of student behavior and related outcomes. Through our ongoing work funded by the John M. Belk Endowment, we are engaging

in a large-scale qualitative inquiry to interview approximately 100 students pre- and post-transfer over two years, including a significant number of students pursuing or having transferred with AAS degrees. This work will explore motivations, processes they navigate, their identities, and other topics, to draw even more specific recommendations to meet their varied needs. In addition, forthcoming quantitative work will connect pre-transfer behaviors with CC and transfer outcomes along with another analysis that will consider credential at transfer, issues of geography and economic distress, along with the feeder patterns. Results from the complementary studies are intended to offer insights to help build on the considerable momentum around improving vertical transfer in NC.

¹ Jenkins, D., & Fink, J. (2016). *Tracking transfer: New measures of state and institutional effectiveness in helping community college students attain bachelor's degrees*. New York, NY: Community College Research Center, Aspen Institute, and the National Student Clearinghouse Research Center. <https://ccrc.tc.columbia.edu/publications/tracking-transfer-institutional-state-effectiveness.html>

² <https://www.nccommunitycolleges.edu/academic-programs/college-transferarticulation-agreements/comprehensive-articulation-agreement-caa>

³ https://www.nccommunitycolleges.edu/sites/default/files/basic-pages/academic-programs/attachments/icaa_with_signatures_6.03.20.pdf

⁴ <https://www.nccommunitycolleges.edu/academic-programs-college-transferarticulation-agreements>

⁵ Hodara, M., Martinez-Wenzl, M., Stevens, D., & Mazzeo, C. (2017). Exploring credit mobility and major-specific pathways: A policy analysis and student perspective on community college to university transfer. *Community College Review*, 45, 331-349. <https://doi.org/10.1177/0091552117724197>

⁶ Fink, J., & Jenkins, D. (2017). Takes two to tango: Essential practices of highly effective transfer partnerships. *Community College Review*, 45, 294-310. <https://doi.org/10.1177/0091552117724512>

⁷ Wyner, J., Deane, K. C., Jenkins, D., & Fink, J. (2016). *The transfer playbook: Essential practices for two- and four-year colleges*. Washington, DC: The Aspen Institute. Retrieved from <https://www.aspeninstitute.org/publications/transfer-playbook/>

⁸ <https://www.northcarolina.edu/impact/stats-data-reports/interactive-data-dashboards/>

⁹ https://files.nc.gov/nccommerce/documents/files/2020-Tiers-memo_asPublished.pdf

¹⁰ Taylor, J. L. (2019). *Postsecondary transfer and mobility in Michigan: Exploring transfer patterns, programs, places, and people*. Michigan Center for Student Success. <https://www.mcca.org/uploads/ckeditor/files/PostSecondaryTransferAndMobility-Michigan.pdf>

¹¹ <https://www.ncpromise.com/>

¹² Dika, S. L., Wang, Y., D'Amico, M. M., Serrata, C., & Bohlig, E. M. (2022). *Transfer seeking behaviors of North Carolina community college students*. (CLTRR-2022-2). UNC Charlotte Cato College of Education. <https://tinyurl.com/CLTRR-2022-2>

¹³ Fink, J., & Jenkins, D. (2022). *Unpacking program enrollments and completions with equity in mind*. CCRC Analytics. Community College Research Center. <https://ccrc.tc.columbia.edu/media/k2/attachments/unpacking-program-enrollments-completion-equity.pdf>

¹⁴ D'Amico, M. M., & Chapman, L. (2018). *Community college to university transfer: Policy brief*. myFutureNC. <https://www.myfuturenc.org/wp-content/uploads/2018/06/NEW-Policy-Brief-Univ-Transfer-DAmico-Chapman-PS.pdf>

¹⁵ Miller, R. A., Slane, L., D'Amico, M. M., & Serrata, C. (2022). *North Carolina transfer student voices: A pilot study report*. (CLTRR-2022-1). UNC Charlotte Cato College of Education. <https://tinyurl.com/CLTRR-2022-1>

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