

# SUPPORTING TRANSFER SUCCESS: EVIDENCE-BASED LESSONS AND RECOMMENDATIONS

Office of Research and Policy Analysis  
Maryland Higher Education Commission

## The Focus on Transfer Students – Why it Matters for Maryland?

Transfer student success is an increasingly important subject in higher education policy circles in recent years, and for good reason. **Almost half of undergraduates attending Maryland’s public four-year institutions transfer<sup>1</sup> from the state’s community colleges.** However, transfer students complete bachelor’s degrees at notably lower rates than their counterparts starting at four-year institutions. Improving transfer student outcomes will be integral to meeting the goal of 55% or more of Marylanders holding at least an associate degree by 2025.

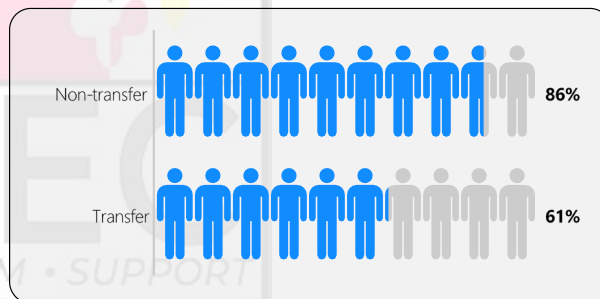
This policy brief explores the challenges transfer students experience and provides evidence-based policy recommendations by summarizing the findings from rigorous empirical research on the subject.

## Achievement Gaps for Transfer Students – What Causes Them?

A longstanding problem regarding college student transfer is the “**community college penalty**”: students initially enrolling in community college are less likely to complete a bachelor’s degree than students who enter directly into a four-year institution.<sup>i</sup> Degree outcomes

are clearly different in Maryland between transfer students and their counterparts. Among students who transferred into a public four-year institution in the 2015-2016 academic year, **61% had completed a bachelor’s degree within four years**, compared to 86% of their “non-transfer” counterparts who enrolled as freshman in 2013-14.

Percent of Students Completing a Bachelor’s Degree in Maryland by 2019-2020<sup>2</sup>



Recent research reveals the drivers of the community college penalty are complex and do not lie squarely on the students.<sup>ii</sup> Accounting for pre-enrollment differences between transfer students and non-transfer students, transfer students have **the same potential to complete bachelor’s degrees** when compared with rising junior/3<sup>rd</sup> year students who initially begin at four-year institutions. This is despite the risk that transfer students may suffer from “**transfer shock**” – a temporary dip in grade point average

students and the students who transferred in earlier terms, reported by each four-year institution.

<sup>2</sup> The sample includes the community college students who transferred to any one of the four-year institutions in Maryland in 2015-2016 and completed bachelor’s degrees by 2019-2020 and the non-transfer students who started in one of the four-year institutions in Maryland as a freshman in 2013-2014, persisted in 2015-2016, and completed bachelor’s degrees by 2019-2020.

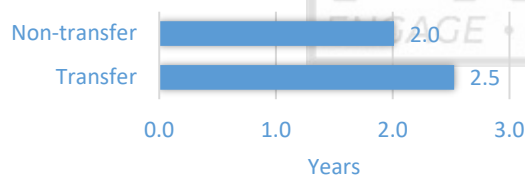
<sup>1</sup> Source: Maryland Higher Education Commission (MHEC) Enrollment Information System. The term transfer throughout this report refers to vertical transfer – students transferring from associate-degree-granting institutions to baccalaureate degree granting institutions, regardless of whether any credits were transferred from one institution to another or any degrees were obtained prior to the movement. The number includes both the new transfer-in

(GPA) during the first and second semesters at the four-year college.<sup>iii</sup>

Additionally, transfer students can face **credit loss** when they transfer from one institution to another, which increases the time for transfer students to complete a degree.<sup>iv</sup> National data show that 54% of transfer students are unable to transfer most of their credit or start at junior standing/3<sup>rd</sup> year standing. In fact, it is estimated that **transfer students would have even a higher likelihood of degree attainment** than non-transfer junior students in the absence of credit loss.<sup>v</sup>

Maryland students are not immune to credit loss. Among bachelor’s degree completers in Maryland, transfer students take longer to complete a degree, and **on average complete 4 more credits than non-transfer rising juniors do**. Reducing credit loss and transfer shock are essential to address the achievement gaps for transfer students in Maryland.

**Average Time to Degree for Transfer and Non-Transfer Students Who Completed a Bachelor's Degree in Maryland by 2019-2020<sup>3</sup>**



**Average Credit Accumulation for Transfer and Non-Transfer Students Who Completed a Bachelor’s Degree in Maryland by 2019-2020<sup>3</sup>**

	Non-transfer	Transfer
Attempted Credits	65.7	71.0
Completed Credits	64.3	68.4

<sup>3</sup> The sample includes the community college students who transferred to any one of the four-year institutions in Maryland in 2015-2016 and completed bachelor’s degrees by 2019-2020 and the non-transfer students who started in one of the four-year institutions in Maryland as a freshman in 2013-2014,

## Promising Practices – Do They Work?

To uncover what practices work and why some seemingly promising practices do not work as expected, this policy brief identified the empirical research of improving transfer student’s outcomes and summarized the evidence from research that has shown rigorous results.

### Transfer/Articulation Agreements

**Statewide transfer agreements, alone, are insufficient** to improve the transfer rate or bachelor’s degree attainment<sup>vi</sup> because they are **complicated to understand and to navigate for both students and advisors**.<sup>vii</sup> Transfer agreements work better when combined with online course equivalency systems along with personalized advising.<sup>viii</sup> And today’s successful transfer students rely on self-directed online tools in their transfer process making reliable online information a crucial complement to transfer agreements.<sup>ix</sup>

Another important limitation of transfer or articulation agreements may have nothing to do with the agreement itself: **most credit loss is due to major-related credit loss instead of the outright loss**. In other words, credits intended to meet major or program-specific requirements or pre-requisites are instead transferred as elective credits, making the student retake major courses.<sup>x</sup> **Transfer or articulation agreements may inappropriately focus on transferability but ignore the credit applicability to specific program requirements**. In other words, courses may transfer but not apply to specific program or graduation requirements. Some states have recently implemented lower division pre-major transfer pathways that ensure students fulfill pre-major requirements when they transfer.<sup>4</sup>

persisted in 2015-2016, and completed bachelor’s degrees by 2019-2020. The time-to-degree and credit accumulation is measured from 2015-2016(post-junior standing).

<sup>4</sup> State examples include Washington - Associate Science Transfer Degree; New York - CUNY and SUNY

Preliminary evaluation of the “Associate Degree of Transfer” program in California established between community colleges and the California State Universities, has shown promising results on increasing the transfer rate and bachelor’s degree attainment on transfer compared to traditional associate degree programs.<sup>xi</sup>

### Advising

One of the primary reasons for pre-major credit loss is **transfer students being uncertain about their destination or major**, which delays their progress toward completion.<sup>xii</sup> Early, knowledgeable, and personalized transfer advising can help students declare their major earlier.<sup>xiii</sup> Additionally, evidence supports the use of direct and personalized advising, which can also mitigate what is known as the community college “cool-out” effect: college practitioners use academic reorientation processes that encourage the least-promising students to lower their educational goals and expectations.<sup>xiv</sup>

Another key factor found to support advising transfer students is the use of technological tools, such as tools that make the exchange of transcripts less burdensome to students.<sup>xv</sup> Technological tools are especially important for rural institutions as their students from low-income, rural backgrounds have fewer local options for continuing their education in different institutions.<sup>xvi</sup>

### Data Reporting and Key Metrics Measuring

To build collaborative transfer partnerships, it is important for institutions, college and

university systems, state agencies, and policy-makers to **closely monitor the performance of transfer students using common metrics that track students all the way to bachelor’s completion.**<sup>xvii</sup> For example, commonly mentioned in the research is the idea of measuring not only the number of credits transferred, but specifically the percentage of them that are applied to a major. Comparisons of this information by institution, degree program, and specific student demographics can be very useful in understanding transfer credit loss.

Florida and New York have compelling examples of these data-driven practices. Florida requires institutions to routinely monitor the credit loss for transfer students and excess credit hours are one of the metrics used for the performance-based funding model.<sup>xviii</sup> In 2019, the City University of New York (CUNY) introduced the Articulation of Credit Transfer project to collect information on how credits are transferred between CUNY institutions, and thus inform improvements in curricula design.<sup>xix</sup>

## Recommendations – What Can Maryland Do?

In order to improve transfer students’ success, Maryland has committed to redesigning the policies and practices in many ways, including articulation agreement templates, implementing upgrades to a state course equivalency system,<sup>5</sup> financial aid dedicated to transfer students,<sup>6</sup> and other legislative work to remove unnecessary obstacles that prevent students from transferring and appropriately applying their credits to another institution.<sup>7</sup> But to overcome

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pathways; California - UC Transfer Pathways & CSU transfer model curricula; Ohio - Transfer Assurance Guides; Tennessee - Tennessee transfer paths, etc.

<sup>5</sup> ARTSYS is a computerized data information system which informs students and advisors at a community college about the transferability of each community college course. See <http://artweb.usmd.edu>

<sup>6</sup> See 2+2 Transfer Scholarship here

[https://mhec.maryland.gov/preparing/Pages/FinancialAid/ProgramDescriptions/prog\\_2\\_plus\\_2.aspx](https://mhec.maryland.gov/preparing/Pages/FinancialAid/ProgramDescriptions/prog_2_plus_2.aspx)

<sup>7</sup> Examples include the Transfer with Success Act (passed in 2021) that required the public institutions to report the denial of credit transferring to MHEC and sending institutions; Senate bill 152 (introduced in 2022) that prohibits institutions from holding the

the persistent transfer student achievement gap, we have to do more to improve our strategies.

### *Maryland Higher Education Commission (MHEC)*

It is important to **realize the limitations of the current articulation agreement**, which mainly focuses on the mobility of credits in general education instead of major-specific course equivalency. Studying the effectiveness of current major-specific transfer-oriented degrees (e.g. Associate Degree in Nursing, Associate of Science in Engineering, and Associate of Arts in Teaching) may yield lessons for designing a more effective statewide articulation agreement. To further refine policies, MHEC can lead stakeholders on **constructing a data or reporting system** that monitors transfer student success routinely.

### *Maryland Four-Year Institutions and Community Colleges*

A commitment to support transfer students from community colleges *and* four-year universities is essential to successful articulation and bachelor's degree completion efforts. Strong bachelor's degree completion requires both high completion rates of non-transfer students and high completion rates of transfer stu-

dents. Providing **fair financial support to transfer students, helping transfer students to adapt to a new campus, and removing unnecessary obstacles that they encounter** are recommended initiatives that four-year institutions can prioritize. Community colleges and four-year colleges and universities that exchange relatively high proportions of students can better track transfer students' success by **identifying and strengthening partnerships, exploring the bottlenecks** that prevent transfer students from graduating, and **aligning curriculum and academic design**. Finally, it is important to help students develop their **"transfer college knowledge"**<sup>8</sup> and support students in selecting a degree path early on.

### *Academic Advisors and Faculty Advisors*

Faculty and staff at both community colleges and four-year institutions can play a pivotal role in how students determine their academic career and program of study. Advisors and faculty members should be cognizant of transfer pathways, provide necessary support to outbound transfer students by helping them prepare and navigate the transfer process (e.g., minimizing the "cool-out" effect), and take steps to assist inbound transfer students who may be experiencing a transition shock.

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<sup>i</sup> Long, B. T., & Kurlaender, M. (2009). Do Community Colleges Provide a Viable Pathway to a Baccalaureate Degree? *Educational Evaluation and Policy Analysis*, 31(1), 30–53. <https://doi.org/10.3102/0162373708327756>

<sup>ii</sup> Monaghan, D. B., & Attewell, P. (2015). The Community College Route to the Bachelor's Degree. *Educational Evaluation and Policy Analysis*, 37(1), 70–91. <https://doi.org/10.3102/0162373714521865>

Xu, D., Jaggars, S. S., Fletcher, J., & Fink, J. E. (2018). Are community college transfer students "a

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transcripts of students who own unpaid bill at the institutions; and House bill 966 (passed in 2022) that provides consistency among institutions to assess academic credit for prior learning. Additionally, Maryland statute and regulations require that students who have obtained an associate degree or who have completed 60 or more semester hours of credit may not be denied direct transfer to another public institution if the student attained a cumulative grade

point average of at least 2.0. For more detailed regulations, see

[http://www.dsd.state.md.us/COMAR/SubtitleSearch.aspx?search=13B.06.01.\\*](http://www.dsd.state.md.us/COMAR/SubtitleSearch.aspx?search=13B.06.01.*)

<sup>8</sup> The examples of the transfer college knowledge include advantages and challenges of beginning their education at a community college, the importance of selecting early their major and destination institution, and the consequences of delaying these decisions (See Hodara et al., 2016).

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good bet” for 4-year admissions? Comparing academic and labor-market outcomes between transfer and native 4-year college students. *The Journal of Higher Education*, 89(4), 478-502.

<https://doi.org/10.1080/00221546.2018.1434280>

Dietrich, C.C., & Lichtenberger, E.J. (2015). Using Propensity Score Matching to Test the Community College Penalty Assumption. *The Review of Higher Education* 38(2), 193-219. [doi:10.1353/rhe.2015.0013](https://doi.org/10.1353/rhe.2015.0013).

Melguizo, T., Kienzl, G. S., & Alfonso, M. (2011). Comparing the Educational Attainment of Community College Transfer Students and Four-Year College Rising Juniors Using Propensity Score Matching Methods. *The Journal of Higher Education*, 82(3), 265–291. <http://www.jstor.org/stable/29789521>

<sup>iii</sup> Hills, J. R. (1965). Transfer shock: The academic performance of the junior college transfer. *Journal of Experimental Education*, 33(3), 210–215.

<https://doi.org/10.1080/00220973.1965.11010875>

<sup>iv</sup> Lichtenberger, E., & Dietrich, C. (2017). The Community College Penalty? Examining the Bachelor’s Completion Rates of Community College Transfer Students as a Function of Time. *Community College Review*, 45(1), 3–

32. <https://doi.org/10.1177/0091552116674550>

<sup>v</sup> Monaghan & Attewell, 2015

<sup>vi</sup> Anderson, G.M., Sun, J.C., & Alfonso, M. (2006). Effectiveness of Statewide Articulation Agreements on the Probability of Transfer: A Preliminary Policy Analysis. *The Review of Higher Education* 29(3), 261-291. [doi:10.1353/rhe.2006.0001](https://doi.org/10.1353/rhe.2006.0001).

Baker, R. (2016). The Effects of Structured Transfer Pathways in Community Colleges. *Educational Evaluation and Policy Analysis*, 38(4), 626–646. <https://doi.org/10.3102/0162373716651491>

Boatman, A., & Soliz, A. (2018). Statewide transfer policies and community college student success. *Education Finance and Policy*, 13(4), 449-483. [https://doi.org/10.1162/edfp\\_a\\_00233](https://doi.org/10.1162/edfp_a_00233)

Giani, M. S. (2019). The correlates of credit loss: How demographics, pre-transfer academics, and institutions relate to the loss of credits for vertical transfer students. *Research in Higher Education*, 60(8), 1113-1141.

<https://doi.org/10.1007/s11162-019-09548-w>

<sup>vii</sup> Taylor, Z. W. (2019). Inarticulate transfer: Do community college students understand articulation agreements?. *Community College Journal of Research and Practice*, 43(1), 65-69.

Crisp, G. (2021). *An Overview of Transfer and Articulation Agreements*. Washington, DC: American Council on Education.

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Handel, S. J. (2008). *Articulation: The Currency of Transfer?* College Board. National Office of Community College Initiatives.

<sup>viii</sup> Le, C., Pisacreta, E. D., Ward, J. D., & Margolis, J. (2019, December 12). *Expanding Pathways to College Enrollment and Degree Attainment: Policies and Reforms for a Diverse Population*. <https://doi.org/10.18665/sr.312296>

<sup>ix</sup> Nuñez, A.M., Yoshimi, J. (2017). A Phenomenology of Transfer: Students’ Experiences at a Receiving Institution. *Innov High Educ.* 42(2), 173–187. <https://doi.org/10.1007/s10755-016-9374-7>

<sup>x</sup> Hodara, M., Martinez-Wenzl, M., Stevens, D., & Mazzeo, C. (2016). *Improving credit mobility for community college transfer students: Findings and recommendations from a 10-state study*. Portland, OR: Education Northwest.

<sup>xi</sup> Baker, R, Friedmann, E., & Kurlaender, M.. (2021). *Improving the Community College Transfer Pathway to the Baccalaureate: The Effect of California’s Associate Degree for Transfer*. (EdWorkingPaper: 21-359). Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/569x-2a48>

<sup>xii</sup> Hodara et al., 2016

<sup>xiii</sup> Wang, X., Lee, S. Y., Nachman, B. R., & Zhu, X. (2021). It Matters Long Before: How Early Exposure to Faculty and Advisors at Baccalaureate Institutions Relates to Upward Transfer. *Educational Researcher*, 50(2), 105–114.

<https://doi.org/10.3102/0013189X20956659>

<sup>xiv</sup> Bahr, P.R. (2008). Cooling Out in the Community College: What is the Effect of Academic Advising on Students’ Chances of Success?. *Res High Educ.* 49(8), 704–732.

<https://doi.org/10.1007/s11162-008-9100-0>

<sup>xv</sup> Kilgore, W. 2021. *Technology as an Enabler of Credit Transfer*. Washington, DC: American Council on Education.

<sup>xvi</sup> Lashley, J., & Thiel, J. (2021, September 16). Must-haves for institutions seeking effective online transfer collaborations. Retrieved June 1, 2022, from <https://www.insidehighered.com/blogs/tackling-transfer/must-haves-institutions-seeking-effective-online-transfer-collaborations>

<sup>xvii</sup> Fink, J., & Jenkins, D. (2017). Takes Two to Tango: Essential Practices of Highly Effective Transfer Partnerships. *Community College Review*, 45(4), 294–310. <https://doi.org/10.1177/0091552117724512>

<sup>xviii</sup> Hodara et al., 2016

<sup>xix</sup> Vora, P., Le, C., Kurzweil, M., Logue, A. W., Buonocore, C., & Vickery, C. (2022, February 2). *Archiving Degree Audit Data to Measure and Reduce Lost Transfer Credit*. <https://doi.org/10.18665/sr.316373>