

City University of New York (CUNY)

## CUNY Academic Works

---

Publications and Research

CUNY Graduate Center

---

2023

### Transfer Information Online: Websites and Articulation Agreements at The City University of New York

A. W. Logue  
*CUNY Graduate Center*

Chet Jordan  
*CUNY Guttman Community College*

Matthew Townsell  
*CUNY Queens College*

Nicol Bellettiere  
*CUNY Central Office*

Rhina Torres  
*CUNY Central Office*

[How does access to this work benefit you? Let us know!](#)

More information about this work at: [https://academicworks.cuny.edu/gc\\_pubs/905](https://academicworks.cuny.edu/gc_pubs/905)

Discover additional works at: <https://academicworks.cuny.edu>

---

This work is made publicly available by the City University of New York (CUNY).  
Contact: [AcademicWorks@cuny.edu](mailto:AcademicWorks@cuny.edu)

**Transfer Information Online:**

**Websites and Articulation Agreements at The City University of New York**

A. W. Logue<sup>1</sup>, Chet Jordan<sup>2</sup>, Matthew Townsell<sup>3</sup>, Nicol Bellettiere<sup>4</sup>, and Rhina Torres<sup>4</sup>

<sup>1</sup>Graduate Center, The City University of New York

<sup>2</sup>Guttman Community College, The City University of New York

<sup>3</sup>Queens College, The City University of New York

<sup>4</sup>Office of Institutional Research and Assessment, The City University of New York

**Author Note**

A. W. Logue  <https://orcid.org/0000-0002-2833-1157>

Chet Jordan is now at Greenfield Community College.

Portions of this research were presented at the 2020 annual meeting of the National Institute for the Study of Transfer Students, Atlanta, Georgia. This study was funded by Grant 1805-05883 from the Mellon Foundation, by The City University of New York, and by Grant R305A180139 – 19 from the Institute of Education Sciences (IES) of the Department of Education (the contents of this paper do not necessarily represent the policy of the Department of

Education, and endorsement by the Federal Government should not be assumed). We thank members of CUNY's Office of Institutional Research and Assessment and Vita Rabinowitz for their contributions at all stages of the research, and Lauren Schudde for comments on a previous draft. We have no known conflicts of interest to disclose.

Correspondence concerning this article should be addressed to A. W. Logue, Center for Advanced Study in Education, Graduate Center, The City University of New York, 365 5<sup>th</sup> Avenue, New York, NY 10016. Telephone: (212)579-2486. Email: alexandra.logue@cuny.edu.

### Abstract

**Objective:** Transfer students face a range of potential challenges as they prepare to move from one college to another. Websites are critical resources for transfer students because they can be easily accessible sources of information concerning credit transfer, advising, articulation agreements, and additional transfer administrative policies and procedures. Detailed assessments of colleges' website transfer information can provide information useful to higher education institutions regarding how transfer information should and should not be communicated online.

**Methods:** The present study examined transfer information on the websites of 19 colleges of The City University of New York (CUNY). This examination assessed the presence on these websites of information about credit transfer, transfer advising, and articulation agreements. This study also assessed the number of within-CUNY articulation agreements listed on each website and whether these articulation agreements were present on the websites of the agreements' partners.

**Results:** The results showed that, even within an integrated system of colleges such as CUNY, and for both colleges that offer associate degrees and colleges that offer bachelor's degrees, the ways in which colleges transmit transfer information online can vary significantly.

In addition, this information can frequently be incomplete, confusing, and misleading. Finally, providing adequate and accurate information on articulation agreements for transfer students can be particularly challenging.

**Conclusions:** This study concludes with recommendations regarding best practices and policies to support enhancement of online information transmission for transfer students, including standardization of website transfer information across groups of colleges, with continuous monitoring for information accuracy and completeness.

*Keywords:* articulation agreement, associate degree, bachelor's degree, transfer, website

## **Transfer Information Online: Websites and Articulation Agreements at The City University of New York**

Student transfer among colleges is now common in the United States. Approximately 38% of students will transfer during their postsecondary careers (National Student Clearinghouse Blog, 2018). There are multiple reasons for students to transfer. For example, many students enroll in community colleges for a variety of reasons, including financial (Canché, 2020), and over 80% of these students wish to obtain at least a bachelor's degree (Jenkins et al., 2014), which means they must transfer. Yet this transfer path is not smooth. Data indicate that only 31.5% of students who first enroll in a community college transfer to a bachelor's program within six years (Shapiro et al., 2019), and only 17% achieve a bachelor's degree within six years after transfer (Jenkins & Fink, 2015).

For many students, the transfer route is clogged with bureaucratic, academic, and financial barriers that hinder their obtaining their final desired degrees. A prime example of such a barrier is credit transfer. Students sometimes have to retake general education or major courses that have already been taken at another college (Fink et al., 2018). The United States Government Accountability Office (GAO) found students lose, on average, 43% of their credits when they transfer. Credit loss contributes significantly to delay in graduation or to students not graduating at all (GAO, 2017; Witteveen & Attewell, 2020). Credit transfer and other transfer challenges are more likely to hinder the success of students who are from underrepresented groups, because such students are more likely to attend community colleges (Community College Research Center, n.d.), and most students intend to transfer from these colleges to bachelor's programs. One way in which credit transfer can theoretically be facilitated is by means of articulation agreements, essentially contracts between sending and receiving colleges

regarding how courses will be counted toward a student's degree after transfer. Articulation agreements typically attempt to facilitate transfer between specific degree programs of partnering colleges. However, even within university systems, intercollege partnerships can be weak, and there are many potential college pairs that do not have comprehensive transfer and articulation agreements (Francies & Anderson, 2020).

A significant obstacle that potential transfer students face concerns the ways in which information related to transfer is communicated by their home college and by those colleges to which they intend to transfer. College websites have the potential to be valuable resources for transfer students in providing the requisite information to ensure a seamless transition from sending to receiving institutions. Integrated online environments that are maintained at the system level or in partnership between two colleges can foster efficiency in the transfer process by collocating bureaucratic obligations and support services in a single space. Collocation of transfer student information can reduce complexity in how information is transmitted and can increase the likelihood of a student completing the steps needed to transfer. Recent research underscores the usefulness of transparent and consistent messaging, as well as the negative impacts on a student's ability to transfer when information about transfer policies and procedures is obscure or incomplete (Schudde et al., 2020). In order to be effective, however, this sort of digital integration depends upon well-functioning partnerships between higher education institutions and sectors.

The overall purpose of the present study is to describe the extent to which critical information related to transfer was communicated on 19 City University of New York's (CUNY) college websites during 2018-2020. Both colleges that offer associate degrees and those that offer bachelor's degrees were examined, including identifying particular aspects of transfer

information that did or did not tend to be present, and information about articulation agreements. The ultimate goal of this study is to use the results to offer recommendations for best practices and policies at institutions of higher education nationwide. These recommendations include individual colleges ensuring that their online transfer information is complete and accurate, as well as consistent across college partners, with a particular focus on the challenges associated with communicating accurate and timely information about articulation agreements.

### **Prior Research**

It has long been recognized that access to information about the transfer process is essential to transfer student success. Laanan crystallized this idea with his formulation of the concept of Transfer Student Capital (TSC), which consists of transfer students' knowledge and experiences. TSC can include transfer students' information about credit transfer between two institutions, as well as admissions and prerequisite course requirements at the receiving college. The greater a student's TSC, whether gained through websites or other means, the more likely they are to transfer successfully (Laanan et al., 2010-2011; Rosenberg, 2016).

College websites have been reported as the primary information source for potential transfer students (Detwiler, 2018; Rosenberg, 2016). Transfer website information is important, not just for the specific assistance that it provides to transfer students, but for the degree to which that information indicates transfer students are valued (Fink & Jenkins, 2021; Gardner et al., 2021). Unfortunately, students often find it difficult to access relevant website information (Fink, 2021).

Several prior studies have investigated whether college website information is adequate. Bray and Sweatt (2018) examined community college websites in Alabama, and Jaggars and Fletcher (2014) conducted a case study of the website of a Michigan community college.

Although the websites in these studies largely met minimum standards for usability, in both studies there were still many ways in which critical information, such as how to make direct contact with advisors, was missing or inadequate.

Schudde et al. (2020) examined the websites of 20 Texas community colleges. In a majority of cases, this research found the information on the websites to be submaximal in terms of ease of access or usefulness. This research underscored the usefulness of transparent and consistent messaging, as well as the negative impacts on a student's ability to transfer when information about transfer policies and procedures is obscure or incomplete. In their review of college websites, the GAO (2017) found that 29% of these websites did not even list the other colleges with which they had articulation agreements.

What these studies have found is that critical information for transfer students regarding financial aid processes, how transfer credits are evaluated, and how students access advisors and register for classes is posted in different website sections and under different headings and subheadings, or may not be posted at all. Inconsistent online information can directly lead to credit loss if a student is unaware of which sending institution courses the receiving institution will count towards degree requirements. Students can make good choices for their future success only when they have accurate, timely information on how their credits will or will not transfer. These findings of inadequate website information on transfer may be surprising given the fact that Title IV institutions are required to make available information concerning how credits transfer (GAO, 2017). Finally, no previous studies have examined transfer information located on bachelor's-degree-granting websites, or have compared associate- to bachelor's-degree-granting websites.



To address cases of inadequate transfer websites, in 2020, the National Institute for the Study of Transfer Students (NISTS) issued excellent guidance on the transfer information that college websites should contain (<https://www.nists.org/transfer-communication-audit>). NISTS also constructed a *Transfer Website Strategy Guide*, complete with wireframes. Such tools can be used to provide students with standardized website transfer information.

### **Research Questions**

The present study examines transfer information on the college websites of CUNY, an integrated university system intended to facilitate transfer. The diversity of the colleges within the CUNY system facilitates comparisons of colleges serving students in different stages of their transfer journeys. This study's three specific research questions are: (1) What sort of transfer information was provided on the websites of the 19 CUNY undergraduate colleges? (2) Were articulation agreements at the 19 CUNY undergraduate colleges listed on the college websites? (3) Did the transfer and articulation information differ across the colleges, particularly across the colleges offering associate versus bachelor's degrees?

### **Method**

#### **Research Site**

As the nation's largest public urban university system, The City University of New York (CUNY) enrolls over 240,000 students at its now 20 undergraduate colleges, of which the majority consist of students who have some previous credits from a CUNY or nonCUNY institution (i.e., the majority of CUNY students are transfer students). Each fall alone, approximately 16,000 students transfer from one CUNY college to another, and an additional 8,000 students transfer into CUNY from other institutions (CUNY Office of Institutional Research and Assessment, 2020a). At CUNY as elsewhere, one potential barrier to successful

transfer is ineffective communication of transfer policies and procedures. Although CUNY is one university with a single board of trustees, built explicitly to be highly interconnected and to create educational ladders for students who begin their college careers with few advantages (Logue, 2017), until 2021 CUNY had no centralized website for transfer information. Each college posted information about transfer policies and procedures only on its own website. Yet a student survey with more than 31,000 respondents indicated websites as students' primary information source about transfer (A. W. Logue, personal communication, June 19, 2020).

CUNY's 20 undergraduate colleges are located in the five boroughs of New York City and are all accessible by public transportation. Of these colleges, seven offer only associate degrees (community colleges), three offer associate and bachelor's degrees (comprehensive colleges), and ten offer only bachelor's and more advanced degrees (senior colleges). One of the senior colleges—the CUNY School of Labor and Urban Studies (SLU)—was only founded in 2018 with a very small enrollment, and so was not included in this study. In the remainder of this paper, the seven community colleges will be identified as Community-A through Community-G, the three comprehensive colleges as Comprehensive-A through Comprehensive-C, and the nine senior colleges (not including SLU) as Senior-A through Senior-I.

In CUNY's undergraduate colleges, a total of 57% of undergraduate students self-identify as female. In addition, 32% of CUNY undergraduate students self-identify as Hispanic, 26% as Black, 22% as Asian, and 20% as White. There are distinct demographic differences between the community and the comprehensive/senior colleges. The community colleges have higher percentages of students of color (38% Hispanic students compared to 28% at the comprehensive/senior colleges, and 29% Black students compared to 24% at the comprehensive/senior colleges). Further, at the community colleges, 66% of students are Pell

grant recipients and 65% are the first in their families to attend college, compared to 58% Pell grant recipients and 58% first-generation college students at the comprehensive/senior colleges (CUNY Office of Institutional Research and Assessment, 2020b).

Approximately 38% of CUNY undergraduate students are enrolled in the community colleges (CUNY Office of Institutional Research and Assessment, 2020b), and approximately 87% of the new community college students at CUNY intend to obtain at least a bachelor's degree (C. Chelman, personal communication, January 28, 2021). Given that CUNY community colleges only offer associate degrees, to attain their goals, CUNY community college students must transfer. CUNY Community colleges thus serve a critical role for entry into the postsecondary system for a student body that consists largely of students from underrepresented groups.

## **Overall Website Evaluation**

### ***Procedure***

The procedures used for evaluating the websites, including development of the evaluation rubric, were consistent with those used by Bray and Sweatt (2018) and Schudde et al. (2020), and followed the steps for qualitative research specified by Maxwell (2013). These steps included the purposeful selection of all CUNY colleges for analysis, and then a categorization analysis. The latter began by the researchers identifying the criteria to be used for the website evaluations through an initial review of a sample of the websites, then continued with a phase in which all the colleges' websites were assessed against the previously identified criteria, finishing with a comparison of the colleges' results.

To determine what aspects of the websites should be assessed, the research team first conducted an open-ended exploration of the major areas of transfer information on a subsample

of six college websites (three community colleges and three senior colleges). These explorations focused on website information related to transfer advising, articulation, credit evaluation, transfer information events (fairs), financial aid, orientations, and onboarding. Two members of the research team separately obtained this information for each of the six preliminary colleges. The resulting findings, as well as additional transfer research findings from the published research literature, were then used to devise a close-ended, quantitative rubric for evaluating all 19 undergraduate college websites (see Table 1). This rubric, though consisting of

-----  
Insert Table 1 about here  
-----

just three categories to facilitate coding, largely covers the essential content specified for transfer websites by NISTS (<https://www.nists.org/transfer-communication-audit>).

The central themes—the organizational categories (Maxwell, 2013)—extracted from the initial website exploration were used as the three major assessment categories for the quantitative rubric. These three major assessment categories were: 1) credit transfer, 2) transfer advising, and 3) articulation agreements. Each of these categories consisted of a set of observable types of website information that would be characteristic of an ideal college transfer website. For the first category, credit transfer, the rubric asked scorers to determine whether the website contained information across a broad spectrum of issues related to credit evaluation, including general education and precollege credits (e.g., Advanced Placement, dual enrollment, and early college credits), CUNY-wide transfer majors, proficiency in languages other than English, and the credit evaluation timeline. Scorers also determined whether a college’s website offered a web-based credit evaluation tool, facilitated access to CUNY’s web-based credit evaluation tool, and/or provided information about transfer credit appeal processes. For the rubric’s transfer advising category, scorers assessed the presence on college websites of information about pre- and post-

transfer advising options, the ways in which advisors were assigned to students, and whether a college engaged in advising jointly with another college for students transferring between that college pair. For the rubric's articulation agreements category, ratings assessed whether college websites had a list of articulation agreements and whether those lists included working hyperlinks to the agreements and to partnering institution websites. As indicated in Table 1, the scorers examined 8 website characteristics for the credit transfer category, 11 for the transfer advising category, and 7 for the articulation agreements category.

The research team then conducted, in 2018 and 2019, separate evaluations of each of the websites of the 19 undergraduate colleges. For each of the three rubric categories, the research team assigned a score ranging from 0-5 based on how many of the category's target characteristics were present on each website, up to a maximum of 5. For example, Community-G was found to have 5 or more of the qualities or characteristics for each of the three categories, and therefore received a top score of 5 for each of the three categories. Note that a top score of 5 does not indicate that the college's website had all of the ideal characteristics for a category—it only indicates that it had at least 5. Also, it should be noted that the scores obtained relate to the number of criteria met within a category, rather than the quality of meeting those criteria.

The rubric was designed in Excel and prompted scorers to document their ratings by identifying an artifact from the college's website and linking that artifact's website page to the rubric. Figure 1 contains an example of an articulation agreement artifact for Senior-C. This college received an articulation agreements score of 4 due to satisfying the 1<sup>st</sup>, 2<sup>nd</sup>, 5<sup>th</sup>, and 7<sup>th</sup> criteria in the articulation agreements column of Table 1 (the rubric). The artifact's content supports that score.

-----  
Insert Figure 1 about here

-----

Two members of the research team used the rubric to score the results for each of the 19 colleges, starting with three colleges (two senior and one community college). A Pearson correlation coefficient for the relationship between their original scores for these three colleges was .48. The moderate size of this correlation revealed the difficulty of different individuals with different perspectives finding and identifying information on different, nonstandardized, websites. Sometimes the two scorers could obtain information with just a few clicks by using the website's search function, but sometimes more extensive searching was necessary, as when articulation agreements were located in the Provost's section of the website. After discussion, these two scorers came to an agreement regarding the scores for all three colleges. For the remaining 16 colleges, both continued to score each college but, similar to the procedure used by Schudde et al. (2020), they communicated "frequently to discuss challenges, ensure consistency, and resolve all disagreements about codes" (Schudde et al., 2020, p. 13). In other words, the scorers continuously discussed and compared their reasons for their scores for the remaining colleges until they came to an agreement on all final scores.

### ***Results***

Results from the overall website evaluation for the three quantitative rubric categories are shown in Table 2. For the first category, credit transfer, there was wide variation in the degree to which information about the evaluation of transfer credits was communicated on the college websites. Out of a maximum possible score of 5.0, the mean score over all 19 of the colleges was 4.4 (SD = 0.9; range 2-5). Colleges with the highest ratings stated not only how transfer credits were evaluated, but also the mechanisms that students must use to have their incoming credits applied to their intended degrees at those colleges.

-----

Insert Table 2 about here  
-----

Among several colleges with high scores on credit equivalencies was Senior-I. This college had a website page dedicated to transfer credit evaluation. The website detailed CUNY policies regarding how course credits would transfer to Senior-I from other CUNY and from nonCUNY colleges, how Senior-I would assign AP credit, and also detailed that college's rules for assigning elective credits to courses that do not have equivalents at Senior-I. On its transfer page, this college provided links to a set of PDFs by which transfer students could see how specific courses applied to bachelor's degrees at Senior-I based on prior credit evaluation patterns. Lastly, the transfer website of Senior-I provided links to required forms and indicated the deadlines for submitting transcripts, transcript reevaluations, and transfer credit appeals.

Several colleges included only partial information on credit transfer processes. For example, Comprehensive-A's website only stated that transfer credit evaluation would be conducted by individual academic departments but did not provide any information for students on what actions they were to take related to the credit evaluation process. Comprehensive-A's website also stated that the college may use multiple evaluations "including third-party reviews by qualified reviewers" to make transfer credit evaluation decisions. How those reviewers would be chosen and under what conditions the evaluations would be conducted were not stated. A scan of Comprehensive-A's departmental webpages produced no information regarding how disciplinary faculty engage with the credit evaluation process and who is each department's representative for credit evaluation oversight.

The presence of website information related to the rubric's second category, transfer advising, also varied widely across the 19 colleges. For this category, of a maximum possible score of 5.0, the mean score across all 19 colleges was 3.6 (SD = 1.1; range 1-5).

Community colleges with high website scores for transfer advising indicated that advising services included dedicated transfer advisors. Across the system, however, there was only one college, Community-C, that listed any advising partnerships between itself and any of the colleges to which its students might transfer. Community-C's website also provided information about transfer bridge programs and about advising staff. According to this college's website, the advising staff regularly offer workshops, organize fairs, and host annual panels to inform students and former students about the transfer process.

The review of the senior and comprehensive colleges' websites with regard to information on transfer advising revealed that some colleges provided information about some areas of transfer advising, but then were missing information about other areas. As an example, Comprehensive-B dedicated part of its website to orientation information for incoming transfer students, but that website included no information on transfer advising. However, Comprehensive-B's website did provide a link to a more general advising site. On Senior-A's website, newly admitted transfer students were invited to an Academic Planning Day at which they were encouraged to meet with advising staff. However, the website offered no information on how advisors were assigned, what these advising staff could assist students with, or how students would be advised once they matriculated at Senior-A.

Rubric scores showed that, among the three scoring categories, colleges scored the lowest on information regarding articulation agreements, and again, scores varied widely across colleges. For all 19 colleges, out of a maximum possible score of 5.0, the mean articulation agreements score was 3.2 (SD = 1.8; range 0-5). Six of 19 colleges received a score of 1 or 0. Some colleges presented a list of agreements, some included a list with links to the agreements



themselves, others linked to sending college program pages, and some colleges presented no articulation agreements at all.

Paired-samples t-tests were conducted to compare the scores for the three rubric categories. At the  $p \leq .05$  level, the credit transfer scores were statistically significantly greater than both the transfer advising and the articulation agreements scores (credit transfer and advising,  $t[18] = 2.07, p = .053, d = .48, 95\% \text{ CI } [-0.12, 1.70]$ ; credit transfer and articulation agreements,  $t[18] = 2.52, p = .022, d = .58, 95\% \text{ CI } [0.20, 2.22]$ ; and advising and articulation agreements  $t[18] = 0.78, p = .45, d = .18, 95\% \text{ CI } [-0.63, 1.36]$ ).

The data in Table 2 can also be used to directly compare the scores of the three rubric categories for colleges that give associate degrees (the seven community colleges) with colleges that give bachelor's degrees (the nine senior colleges). The three comprehensive colleges, which offer a varying number of both degree types, cannot provide clear comparisons, and were therefore excluded. These comparisons yielded no significant differences ( $p \leq .05$ ) for credit transfer, advising, or articulation agreements scores. In other words, neither the seven community colleges nor the nine senior colleges consistently communicated more or less information about transfer on their websites.

### **Articulation Agreement Cataloging**

#### ***Procedure***

The quantitative rubric analysis showed that, in addition to colleges receiving the lowest scores in the articulation agreements category, there was widespread inconsistency in how articulation agreements were communicated on the college websites. CUNY articulation agreements are the purview of each college, and there has been no systematized or structured system-wide mechanism for how colleges or the central CUNY administration maintain records

of such agreements (with the exception of dual-degree programs). This is despite the fact that articulation agreements are frequently the focus of individual CUNY colleges' efforts to smooth transfer with other CUNY colleges.

Further investigation was undertaken of the information about articulation agreements on the 19 individual colleges' websites. More specifically, in 2019 and 2020, one member of the research team first searched each of the 19 colleges' website pages containing enrollment information for students and catalogued every articulation agreement listed on those pages. Then, for each agreement thus identified, this research team member searched the partner college's entire website for any mention of that agreement. The process of cataloging these articulation agreements did not include evaluating their utilization because there is currently no mechanism at CUNY for determining whether an articulation agreement has affected a student's course choices or credit transfer.

### ***Results***

There was also wide variation in the number of articulation agreements listed on the 19 individual colleges' websites. A total of 455 articulation agreements were identified between CUNY associate and bachelor's programs. Figure 2 shows the numbers of these articulation agreements that were listed on each college website, with the colleges ordered on the x-axis according to these numbers. Similar to the GAO (2017) findings, 26% (5 of 19) of the colleges listed no or almost no (between 0 and 2) articulation agreements on their websites. The community colleges listed a smaller total number of articulation agreements than did the senior colleges (a mean of 25.4 [SD = 17.8] for the seven community colleges and a mean of 30.8 [SD = 53.5] for the nine senior colleges). However, this difference is not statistically significant. In contrast, the 178 articulation agreements listed on the community college websites were

significantly more likely to be found on their articulation partners' websites (73.6% were so listed) than were the 277 articulation agreements listed on the senior colleges' websites (41.9% were so listed;  $X^2(1) = 43.9, p < .001; r = .31, 95\% \text{ CI } [.22, .39]$ ).

-----  
Insert Figure 2 about here  
-----

### **Discussion**

Consistent with the results found by Schudde et al. (2020) in Texas, the present results indicate that, at the time the data were collected in 2018-2020, there was inconsistency in how information related to transfer was presented on 19 CUNY college websites. Students had access to some websites with detailed information on credit transfer, transfer advising, and/or articulation agreements, but often had to rely on sites that offered incomplete information or limited resources. The methods used here, a quantitative rubric and a cataloging of articulation agreements, allowed for comparisons to be drawn among colleges. These comparisons indicate that, even within a unified university system that has some standardized policies regarding transfer (Logue, 2017), there can exist inconsistent, college-specific practices regarding the communication of information about transfer. In the present study, such difficulties were as likely to be found on community college as on senior college websites.

Across all of the colleges, the websites had the least complete information concerning articulation agreements, in comparison to information about credit transfer and transfer advising. Websites varied widely with regard to if and how colleges conveyed information about articulation. This finding is perhaps surprising given that many higher education administrators, policy makers, and faculty state that articulation agreements are the solution to credit transfer challenges, with some colleges pursuing them aggressively (e.g., Capezza, 2019).

Other members of the higher education community have pointed out that, because there are so many different majors even at one college, as well as so many potential articulation partners, constructing and maintaining pairwise traditional articulation agreements quickly becomes a never-ending, impossible task. In systems of higher education institutions, hundreds of articulation agreements may cover only a minority of transfer students' paths (Lipscomb et al., 2019). At CUNY, if each of the seven community colleges have 20 majors, and each of those majors needs to be articulated with a comparable major at each of the 13 comprehensive and senior colleges, then 1,820 articulation agreements need to be constructed and maintained. The largely inadequate information on articulation agreements observed on the college websites in the present study perhaps reflects the difficulty in constructing and maintaining each agreement. These agreements must surmount differences in colleges' policies and cultures (Taylor & Jain, 2017). Further, their content may be opaque to all but the most skilled readers (Amey, 2020; Taylor, 2019; Wang, 2020), an aspect of articulation agreements not addressed in the current study. Based on the findings from the current and other studies, alternatives to traditional articulation agreements may include more comprehensive articulation agreements that involve many majors and many colleges simultaneously, and/or third-party evaluation of all colleges' courses. Some examples are the American Council on Education's website "Evaluations, Credits, and Transcripts" (<https://www.acenet.edu/Programs-Services/Pages/Credit-Transcripts/Credit-Transcripts.aspx>), the "Interstate Passport" (<http://interstatepassport.wiche.edu/>), comprehensive articulation agreements across states (Spencer, 2020), and statewide legislation (Yeh, 2018).

This study did find that community colleges were significantly more likely than senior colleges to list on their websites articulation agreements that were also represented on their articulation partners' websites. This is despite the fact that the overall website evaluation found

that the community and senior colleges did not differ significantly in the presence of articulation information on those websites. As stated previously, most community college freshmen (associate-degree program students) wish to obtain at least a bachelor's degree. Thus, it is reasonable to expect that displaying information about actual agreements on their own and their partners' websites would be a high priority for community colleges.

There are limitations to assessing web-based content in this way. First, although the use of the rubric helped to illustrate where there was information and where there were gaps across a series of very different websites, the types and quality of practices actually available at each college cannot be definitively ascertained by such an evaluation. Nor did this approach take into account many other factors that can influence transfer student success. Examples of such factors include other mechanisms for how transfer information is communicated (such as direct communication between advisors and their advisees), and how transfer students are actually perceived and treated at the receiving colleges (Bahr et al., 2013). These types of interactions and information pathways are not captured here and are valuable areas for further study. In addition, without an official repository of articulation agreements (a repository that CUNY and many other institutions do not have), there is no way to know if a lack of articulation agreements on websites is due to the information not being posted on the websites, or is due simply to a lack of articulation agreements (GAO, 2017). Nevertheless, the rubric is a tool that academic leaders can use to help spark discussion around what transfer information is missing, inaccurate, or incongruent with policy. The very act of assessing something, and thus having an accurate picture of its current state, may by itself result in improvements.

Perhaps not coincidentally, there have been changes in the availability of CUNY online transfer information since this study was conducted. Although any sort of central CUNY

repository of articulation agreements is still lacking, there have been multiple other improvements. Since the study began and the results were shared with the colleges and the CUNY central office, multiple individual CUNY colleges have enhanced their websites, and there have been CUNY-wide changes as well. Since 2019, CUNY has had a reliable online transfer credit information system for students to use prior to transfer: Students and their advisors are now able to access a “Transfer What If” (TWIF) option in the CUNY DegreeWorks software. This option helps students see how their credits would transfer in any number of transfer scenarios. Yet, this valuable resource is not accessible to anyone except currently enrolled students, can only show information for courses that a student is taking or has taken, and does not provide information on articulation agreements. Thus, although TWIF is a useful tool that allows for greater transparency in the transfer process, it does not provide all the information students and others need for successful transfer to another college. Since the data for this study were collected, an additional digital tool called Transfer Explorer, originally funded by the Heckscher and Petrie Foundations, has become available (Kurzweil et al., 2020). This tool can show anyone, with no login, how a course at any CUNY college will transfer to any other CUNY college. Another recent improvement is the CUNY Transfer Student Hub, a website that includes much information about transfer at CUNY, including a long list of FAQs with answers.

The current results point to significant, specific, policy and practice concerns for colleges and universities that wish to increase transfer student success. First, the variation in scores from the website analysis and the inconsistencies in website reporting of articulation agreements indicate that transfer students can be exposed to inconsistent, incomplete, and inaccurate information, which could then result in their making suboptimal choices concerning transfer, including choosing which community college courses will best transfer, choosing the best

college to which to transfer, and even deciding whether to transfer at all. Although providing a coherent message across colleges may not be within individual colleges' control, students can benefit from colleges ensuring that what the colleges themselves communicate is internally accurate, up-to-date, and complete. Colleges should monitor, cross-check, update, and continuously improve information about transfer on their websites. The rubric used in the present study can be used as a checklist for determining whether and how a website should be revised.

Second, there appears to be a particular reason to be concerned about inadequacies of articulation agreement information on websites. These inadequacies may reflect issues with the use of articulation agreements themselves (especially pairwise agreements) as a reasonable way to smooth credit transfer at scale. Other solutions for credit transfer should be considered.

Third, the presentation on the websites of transfer information should be consistent across colleges. This will facilitate students choosing among potential transfer destination colleges. This study's scorers had difficulty navigating the very different website structures of the different colleges. Students likely have at least as much difficulty. Therefore, colleges within a region, state, or system should strive to structure their websites similarly, and to place similar transfer tools on their websites, particularly when colleges are frequent transfer partners. NISTS's guidance on the information that college websites should contain for transfer students, and their *Transfer Website Strategy Guide*, including wireframes, can be helpful in this regard.

Some states' websites provide good illustrations of these recommendations. For example, there are some states that attempt to facilitate movement within their public postsecondary systems by consolidating transfer information into a single website. Indiana hosts a website called TransferIN Indiana (<https://transferin.net/>) which provides resources for students, families, and higher education faculty and staff on credit evaluation, advising, and financial aid. One

feature of the TransferIN Indiana website is a transfer credit tool titled Core Transfer Library. This tool includes a continually updated list of preapproved courses that transfer between all public colleges in Indiana.

Some websites also provide easily accessible information about articulation agreements. The Missouri Community College Association website lists one (statewide) articulation agreement for an Associate of Arts in Teaching (<https://www.mccatoday.org/articulation-agreements>). This agreement was drafted to increase the number of licensed teachers in the state, and has allowed community college students who earned an A.A. in Teaching to transfer seamlessly to one of the state's bachelor's-degree colleges that would ultimately qualify them to be licensed teachers. The California system hosts a website called ASSIST to help students identify articulation agreements that are available for their majors (<https://assist.org/>). After accessing ASSIST, students can select their sending and receiving colleges and identify any articulation agreements that would apply to a specific major. Once the search is complete, a student receives a copy of the agreement itself. Each agreement clearly documents how courses from the sending college are evaluated upon matriculation at the receiving college.

Taken as a whole, the present study illustrates inconsistencies in web-based content related to transfer, underscores that there is a great deal of varied information that needs to be presented, and emphasizes that that information needs to be continuously monitored, updated and corrected. It is not surprising that there is wide variation in how transfer information is presented on college websites when each college attempts to handle that presentation on its own.

Transfer information is complex and is often inadequate in how it is presented on college websites, in this and previous studies. Such inadequacies constitute unnecessary challenges for students trying to reach their educational goals. Further, these inadequacies will harm the types



of students who tend to enroll in community colleges—students who are more likely to be from underrepresented groups and from families that have limited financial resources, and who must transfer to obtain bachelor’s degrees. If we wish such students, and all students, to have equal access to the opportunity to earn a bachelor’s degree, and all degrees, then we must ensure that information about transfer, on websites and elsewhere, is clear, complete, and accurate.

### References

- Amey, M. J. (2020, Winter). Finding the path forward to effective transfer partnerships for racially minoritized students. *New Directions for Community Colleges*, 192, 121-124. <https://doi.org/10.1002/cc.20429>
- Bahr, P. R., Toth, C., Thirolf, K., & Massé, J. C. (2013). A review and critique of the literature on community college students' transition processes and outcomes in four-year institutions. In M. B. Paulsen (Ed.), *Higher education: Handbook of theory and research*: Vol. 28 (pp. 459-511). Springer.
- Bray, N., & Sweatt, W. (2018). The usability of the websites of Alabama's community colleges. *Community College Journal of Research and Practice*, 42, 744-747. <https://doi.org/10.1080/10668926.2017.1325786>
- Canché, M. S. G. (2020). Community college students who attained a 4-year degree accrued lower student loan debt than 4-year entrants over 2 decades: Is a 10 percent debt accumulation reduction worth the added "risk"? If so, for whom? *Research in Higher Education*, 61, 871-915. <https://doi.org/10.1007/s11162-019-09565-9>
- Capezza, K. (2019, January 14). Welcoming transfer students: Insights for success. *The Evollution*. <https://bit.ly/2Qw7rmH>
- Community College Research Center. (n.d.). *Community college FAQs*. <https://ccrc.tc.columbia.edu/Community-College-FAQs.html>
- CUNY Office of Institutional Research and Assessment. (2020a, April 23). *Undergraduate advanced standing transfers by type of sending college Fall 2019*. [http://www.cuny.edu/irdatabook/rpts2\\_AY\\_current/ADMS\\_0002\\_UG\\_TNS\\_SENDCOL\\_TYP.rpt.pdf](http://www.cuny.edu/irdatabook/rpts2_AY_current/ADMS_0002_UG_TNS_SENDCOL_TYP.rpt.pdf)

CUNY Office of Institutional Research and Assessment. (2020b, August 18). *A profile of undergraduates at CUNY senior and community Colleges: Fall 2019.*

[https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/oira/institutional/data/current-student-data-book-by-subject/ug\\_student\\_profile\\_f19.pdf](https://www.cuny.edu/wp-content/uploads/sites/4/page-assets/about/administration/offices/oira/institutional/data/current-student-data-book-by-subject/ug_student_profile_f19.pdf)

Detwiler, R. (2018, October 14). How to meet the needs of incoming transfer students. *The Evollution*. <https://evollution.com/attracting-students/accessibility/how-to-meet-the-needs-of-incoming-transfer-students/>

Fink, J. (2021, February 4). Don't blame students for institutional barriers to equitable transfer success. *Inside Higher Ed*. <https://www.insidehighered.com/print/blogs/tackling-transfer/don%E2%80%99t-blame-students-institutional-barriers-equitable-transfer-success>

Fink, J., Jenkins, D., Kopko, E., & Ran, F. X. (2018, February). *Using data mining to explore why community college transfer students earn bachelor's degrees with excess credits*. CCRC Working Paper No. 100. <https://ccrc.tc.columbia.edu/publications/using-data-mining-explore-why-community-college-transfer-students-earn-bachelors-degrees-excess-credits.html>

Francies, C., & Anderson, L. (2020, February 24). *50-state comparison: Transfer and articulation policies*. Education Commission of the States. <https://www.ecs.org/transfer-and-articulation-policies-db/>

Gardner, J. N., Rosenberg, M. J., & Koch, A. K. (2021). Conclusion: Where do we go from here? Synthesis and recommendations. In J. N. Gardner, M. J. Rosenberg, & A. K. Koch

(Eds.), *The transfer Experience: A Handbook for creating a more equitable and successful postsecondary system*. Gardner Institute and Stylus.

Jaggars, S. S., & Fletcher, J. (2014). Redesigning the student intake and information provision processes at a large comprehensive community college. Community College Research Center Working Paper No. 72. <https://ccrc.tc.columbia.edu/publications/redesigning-student-intake-information-provision-processes.html>

Jenkins, D., & Fink, J. (2015, January). *What we know about transfer*. Research Overview. Community College Research Center.

<http://ccrc.tc.columbia.edu/media/k2/attachments/what-we-know-about-transfer.pdf>

Jenkins, D., Kadlec, A., & Votruba, J. (2014, July). *The business case for regional public universities to strengthen community college transfer pathways (with guidance on leading the process)*. HCM Strategists.

[http://hcmstrategists.com/maximizingresources/images/Transfer\\_Pathways\\_Paper.pdf](http://hcmstrategists.com/maximizingresources/images/Transfer_Pathways_Paper.pdf)

Kurzweil, M., Le, C., & Logue, A. W. (2020, June 5). A new resource to help CUNY students transfer smarter. Ithaka S+R Blog. <https://sr.ithaka.org/blog/a-new-resource-to-help-cuny-students-transfer-smarter/>

Laanan, F. S., Starobin, S. S., & Eggleston, L. E. (2010-2011). Adjustment of community college students at a four-year university: role and relevance of transfer student capital for student retention. *Journal of College Student Retention*, 12, 175-209.

<https://doi.org/10.2190/CS.12.2.d>

Lipscomb, T., Wallin, C., Braun, D., Clatterbuck, K., Dana, F., Keniston, L., Lipp, J., & Mason, C. (2019, July 5). Improving transferability case studies: 'Building a better bridge to the bachelor's' (EJ1224728). *Inquiry*, 22(1). ERIC. <https://eric.ed.gov/?id=EJ1224728>

Logue, A. W. (2017). *Pathways to reform: Credits and conflict at The City University of New York*. Princeton University Press.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3<sup>rd</sup> ed.). Sage.

National Student Clearinghouse Blog. (2018, August 8). *Only 60,000 of more than 1 million community college students transferred with a credential, research center's transfer and mobility report reveals*. <https://bit.ly/3mVJ3a0>

Rosenberg, M. J. (2016). Understanding the adult transfer student--support, concerns, and transfer student capital. *Community College Journal of Research and Practice*, 40(12), 1058-1073. <http://dx.doi.org/10.1080/10668926.2016.1216907>

Schudde, L., Bradley, D. & Absher, C. (2020). Navigating vertical transfer online: access to and usefulness of transfer information on community college websites. *Community College Review*, 48(1), 3-30. <https://doi.org/10.1177%2F0091552119874500>

Shapiro, D., Dundar, A., Huie, F., Wakhungu, P., Yuan, X., Nathan, A. & Hwang, Y. (2019, September 26). *Tracking transfer: Measures of effectiveness in helping community college students to complete bachelor's degrees*. National Student Clearinghouse Research Center. <https://nscresearchcenter.org/signaturereport13/>

Spencer, G. (2020). Promoting the attainment-to-transfer pathway: Effects of transfer associate degree policies across states. *The Review of Higher Education*, 43(2), 553-580. <https://doi.org/10.1353/rhe.2019.0110>

Taylor, J. L., & Jain, D. (2017). The multiple dimensions of transfer: Examining the transfer function in American higher education. *Community College Review*, 45(4), 273-293. <https://doi.org/10.1177%2F0091552117725177>

- Taylor, Z. W. (2019). Inarticulate transfer: Do community college students understand articulation agreements? *Community College Journal of Research and Practice*, 43(1), 65-69. <https://doi.org/10.1080/10668926.2017.1382400>
- United States Government Accountability Office. (2017). *Students need more information to help reduce challenges in transferring college credits*. <https://www.gao.gov/products/gao-17-574>
- Wang, X. (2020). *On my own: The challenge and promise of building equitable STEM transfer pathways*. Harvard Education Press.
- Witteveen, D., & Attewell, P. (2020). The vertical transfer penalty among bachelor's degree graduates. *Journal of Higher Education*, 91(1), 32-57. <https://doi.org/10.1080/00221546.2019.1609323>
- Yeh, T. L. (2018, August). *State policy and its impact on collaboration to promote transfer in Minnesota*. Community College Research Initiatives. [https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/158/2018/11/19231016/HPTP\\_DataNote5.pdf](https://s3-us-west-2.amazonaws.com/uw-s3-cdn/wp-content/uploads/sites/158/2018/11/19231016/HPTP_DataNote5.pdf)

**Table 1***Quantitative Website Evaluation Rubric*

<i>Credit Transfer</i>	<i>Transfer Advising<sup>a</sup></i>	<i>Articulation Agreements</i>
<ul style="list-style-type: none"> <li>• College web-based system for students to evaluate transfer credits</li> <li>• Detailed information on general education equivalencies</li> <li>• Explanation of the timeline for transfer credit evaluation</li> <li>• Information on AP or other pre-college transfer credits</li> <li>• Information on required proficiency (e.g. foreign language) and/or exemption</li> <li>• Information on transfer credit appeals process</li> <li>• Information on university transfer majors</li> <li>• Links to CUNY's online tool for credit evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Includes campus information sessions with advisors prior to transfer (Sending)</li> <li>• Information about pre-transfer advising services at home college (Sending)</li> <li>• Details how advisors are assigned to transfer students (Receiving)</li> <li>• Includes virtual advising services for matriculated students (Receiving)</li> <li>• Includes virtual advising services for prospective students (Receiving)</li> <li>• Information about on-campus advising services for matriculated transfer students (Receiving)</li> <li>• Information about on-campus advising service for prospective students (Receiving)</li> <li>• Detailed contact information for transfer advising staff (Both)</li> <li>• Distinguishes between general advising staff and transfer advising staff (Both)</li> <li>• Information about advising for special groups (second degree, foreign, nonCUNY) (Both)</li> <li>• Lists information and dates for on-campus transfer fairs or orientations (Both)</li> </ul>	<ul style="list-style-type: none"> <li>• Defines what an articulation agreement is and its function</li> <li>• Included as part of the transfer section of the college's website</li> <li>• Includes general education transfer equivalencies</li> <li>• Includes program contact persons</li> <li>• Includes program specific transfer equivalencies</li> <li>• Includes up-to-date images of articulation agreements</li> <li>• Links to the transfer program's website</li> </ul>

*Note.* Method for assigning a score to a college for each of the three categories: 0, no criteria met; 1, one criterion; 2, two criteria; 3, three criteria; 4, four criteria; 5,  $\geq$  five criteria.

<sup>a</sup>“Sending” indicates criteria relevant to colleges sending transfer students, “Receiving” to colleges receiving transfer students, and “Both” to both sending and receiving colleges.

**Table 2***Rubric Scores by College*


College	Credit Transfer	Advising	Articulation Agreements	Mean(SD)
Community-A	4	5	1	3.3(2.1)
Community-B	5	3	1	3.0(2.0)
Community-C	4	5	1	3.3(2.1)
Community-D	3	3	5	3.7(1.2)
Community-E	3	5	4	4.0(1.0)
Community-F	5	3	5	4.3(1.2)
Community-G	5	5	5	5.0
Community M(SD)	4.1(0.9)	4.1(1.1)	3.1(2.0)	
Comprehensive-A	2	3	3	2.7(0.6)
Comprehensive-B	5	0	3	2.7(2.5)
Comprehensive-C	5	3	3	3.7(1.2)
Comprehensive M(SD)	4.0(1.7)	2.0(1.7)	3.0(0.0)	
Senior-A	5	2	1	2.7(2.1)
Senior-B	5	3	0	2.7(2.5)
Senior-C	4	1	4	3.0(1.7)
Senior-D	5	3	1	3.0(2.0)
Senior-E	4	4	5	4.3(0.6)
Senior-F	5	5	4	4.7(0.6)
Senior-G	5	5	5	5.0
Senior-H	5	5	5	5.0
Senior-I	5	5	5	5.0
Senior M(SD)	4.8(0.4)	3.7(1.5)	3.3(2.1)	
All Colleges M(SD)	4.4(0.9)	3.6(1.1)	3.2(1.8)	3.7(0.9)

*Note.* Scores indicate the number of criteria met by each college's website from the three lists in Table 1 (the rubric used for the overall website evaluation), from 0 to a maximum of 5.



**Figure 1****Senior-C Articulation Agreements Category Artifact**

## Articulation Agreements

SHARE:   

Articulation agreements are formal agreements between CUNY School of Professional Studies (CUNY SPS) and two-year colleges and universities allowing students to transfer the maximum number of credits with ease to CUNY SPS from institutions with which we have an established transfer process in place.

Below you will find articulation agreements between CUNY SPS and other accredited institutions.

**Articulation Agreements Listed by Program:**

**Business**  
[Borough of Manhattan Community College – A.A.S. in Business Management \(PDF\)](#)  
[Borough of Manhattan Community College - A.A. in Business Administration \(PDF\)](#)

**Child Development Associate (Certificate Program)**  
[Borough of Manhattan Community College – A.S. in Child Care/Early Childhood Education \(PDF\)](#)  
[Hostos Community College - A.A.S. in Early Childhood Education \(PDF\)](#)  
[Kingsborough Community College – A.S. in Early Childhood Education / Child Care \(PDF\)](#)

**Communication and Media (BA)**  
[Guttman Community College - A.A. in Liberal Arts and Sciences \(PDF\)](#)

**Disability Studies (BA)**  
[Borough of Manhattan Community College - A.S. in Human Services \(PDF\)](#)  
[Hudson Valley Community College - A.S. in Human Services \(PDF\)](#)  
[Hudson Valley Community College - Certificate in Disability Studies \(PDF\)](#)

**Health Information Management (BS)**  
[Borough of Manhattan Community College - A.A.S. in Health Information Technology \(PDF\)](#)  
[Raritan Valley Community College - A.A.S. in Health Information Technology \(PDF\)](#)

**Health Services Administration (BS)**  
[Guttman Community College - A.A. in Business Administration \(PDF\)](#)

*Note.* This artifact received a score of 4 due to satisfying the 1<sup>st</sup>, 2<sup>nd</sup>, 5<sup>th</sup>, and 7<sup>th</sup> criteria of the Articulation Agreements category of the quantitative website evaluation rubric (see Table 1).

**Figure 2**

Number of Articulation Agreements Listed on Individual College Websites

