

**“From Theory to Application, Sometimes Things Get Lost”: Policy and Practice Perspectives
of Public Postsecondary Transfer Coordinators in Wisconsin**

By

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Acknowledgments and Dedication

It takes a village to support a doctoral student. I told myself that if I ever made it to this point, to be writing acknowledgments of those who have contributed to my journey and my eventual production of this document, I would have more gratitude than humanly possible to give to my village. And now I am here, completing my final graduate experience, and I am so overwhelmed by the feeling of appreciation for the many people who helped get me here in their own ways.

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My passion for studying higher education has been ongoing for many years. I have had the privilege of working alongside brilliant colleagues and champions of student success at the New Mexico Higher Education Department, the University of New Mexico, the New Mexico Legislature, the Universities of Wisconsin, UW-Madison, Madison College, and the Wisconsin Technical College System. Everyone's mentorship, friendship, and support have helped me grow as a practitioner and scholar – thank you all for your tireless work on behalf of students and the belief in me that I am making contributions to this field.

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Brandon, words cannot express my appreciation for all that you have done to help make this dream come true. A tireless public servant and higher education expert in your own right, you have not only been my partner in crime and love of my life, but you have been an honored colleague and advisor, laboring through this doctoral journey with me. Your commitment and your work ethic are a source of inspiration to me. You supported the decision to uproot our lives and move to Wisconsin and you were willing to do whatever it took to ensure that our new life was one of joy. You have shared ideas, accomplishments, and setbacks with me; through it all you have been my ride or die and I could not have gotten through this life chapter without you, nor would I have wanted to. You and Brew are mi Familia, mi Corazón, and I thank you both for the investment and sacrifices you have made while supporting me on this path.

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Abstract

Despite decades of efforts by institutional leaders and policymakers to streamline transfer processes for students at public institutions of higher education, vertical transfer rates—the rates in which students transfer from two-year institutions to four-year institutions—remain below desired levels. National data indicate that many community and technical college students aspire to transfer and earn a bachelor’s degree, but only about a third of those students ever make that transition. Limited empirical evidence suggests that transfer policies at the state level are an effective tool to align institutions around improving transfer student outcomes, yet policymakers across the United States continue to create laws with little understanding about policy implementation and efficacy.

This case study utilizes interviews, document analysis, and observation to examine how transfer coordinators at public postsecondary institutions in Wisconsin experience and implement state and system-level transfer policies. Participants across institutions revealed mixed perceptions about the utility of several existing transfer policies. They felt the policies served as the groundwork to encourage cooperation among institutions and provided the parameters that institutional leaders need to implement transfer guidelines and programming. However, participants were critical of the legislated mandates and system-level requirements when they fell short of fostering improved inter-institutional relationships or when it seemed that policies were disjointed from the reality of implementation. Considering these challenges, the results of this dissertation contribute to a better understanding of the factors that influence policy implementation, suggesting that policies can be part of the solution to the challenges that impede seamless transfer, but how practitioners perceive and implement policies will enhance or detract from their impact.

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Chapter I: Introduction

Transfer between or among institutions of higher education is an important element of the undergraduate experience for many students. Contemporary college students increasingly attend more than one higher education institution and accumulate credits in various learning environments on their path to a degree. There are multiple ways of defining and classifying transfer students based on their credit-taking and enrollment patterns (Adelman, 2006; de los Santos & Sutton, 2012; de los Santos & Wright, 1990; McCormick, 2003; Shapiro et al., 2015; Soler, 2020; Taylor, 2016; Townsend, 2001; Townsend & Dever, 2002; Wickersham, 2020). Transfer as an umbrella terminology denotes multifaceted credit and degree mobility patterns between colleges and universities, including pre-college programs, movement between two-year and four-year institutions, returning adult learners with credits from multiple institutions, and transfer between similar institutions. Some students may be on a direct college trajectory and only transfer between colleges and universities once — a pattern that is common between those transferring from two-year to four-year institutions — but many will also attend more than one institution concurrently and transfer multiple times (Adelman, 1999; Bahr, 2012; Barkley, 1993; Hossler et al., 2012; Matthews & Mellow, 1996; Townsend, 2001). Data collected through the United States Department of Education’s (USED) Postsecondary Education Transcript Study of 2009 suggest that around one-third of first-time beginning undergraduate students transferred or co-enrolled at least once during a six-year period (Simone, 2014). Of those who transferred, 45 percent changed their institution more than once (Shapiro et al., 2015). The considerable number

of student transitions from one institution to another suggests a complex and non-linear path to a college degree in the current higher education environment.

The convergence of student, institutional, system, and state-level determinants influences student transfer opportunities between postsecondary institutions. Developing a comprehensive understanding of these factors is imperative to support successful student transfer at the institutional level and educational attainment at the state level. To accomplish this, stakeholders need access to detailed information and research that can be used to create different transfer pathways and to develop cross-institutional agreements that foster transitions and maximize the benefits of transfer. States can play a critical role in building evidence on transfer policies and programs administered collectively at the state and institutional levels. Policymakers can use what is learned through institutional practices to enhance their understanding of the facilitators and barriers to transfer for college students. This knowledge would allow them to articulate data-driven programmatic and policy solutions that support transfer students in relation to state-level college attainment goals. All this work should be undergirded by the expanding research on state-level transfer that is helping the field reflect on prior knowledge as well as develop new conceptualizations of transfer to analyze student pathways and outcomes and translate the findings into improved policy and practice (Wang et al., 2017b).

While some trends in postsecondary transfer and articulation are still emergent, research indicates that higher education institutional leaders and state legislatures have been working to improve transfer efficiency between two-year and four-year institutions through a variety of models for decades (Anderson et al., 2006b; Kintzer, 1996; Kintzer & Wattenbarger, 1985; Taylor, 2016; Worsham et al., 2021). Despite these efforts, higher education vertical transfer rates — the rates at which students move from a lower level institution to a higher level

institution, such as the movement from a two-year institution to a four-year institution (Anderson et al., 2006b; Bradburn et al., 2001; Simone, 2014) — remain well below the percentage of students who indicate their intentions to transfer (Horn & Skomsvold, 2011; LaSota & Zumeta, 2016; Monaghan & Attewell, 2015; Wang et al., 2021b). Nationally, vertical transfer rates have declined before and during the COVID-19 pandemic (Causey et al., 2022; Grubb, 1991; US Department of Education, 2020). However, with what we understand about contemporary college student enrollment patterns and students' degree completion aspirations, the critical role of transfer in the higher education ecosystem must remain a focus of institutional and state policymakers and researchers alike. Accordingly, policymakers and college personnel must continue to develop, refine, and implement transfer policies that result in the intended student outcomes, if transfer rates are to improve.

Besides low transfer success rates nationally, there are several important lines of reasoning to justify our attention to transfer and policies affecting students' multi-directional experiences transitioning through higher education. First, for “new majority learners,” the path to a college degree is increasingly non-linear and frequently begins at a two-year institution. The term “new majority learner” refers to the intersectional and fluid identities of students who have been historically excluded in the design of higher education but who are increasingly enrolling in colleges and universities in the United States (Knoell, 1996; Mosholder & Zirkle, 2007; Ross, 2016). This categorization broadly encompasses people of color, English as a second language learners (ELL), immigrants, undocumented persons, people from low-income backgrounds, adult learners, justice-involved individuals, people with disabilities, first-generation students, students who support families, part-time students, employed learners, transfer students, individuals who are financially independent for financial aid purposes, military-connected learners, and students

from the LGBTQIA community (American Association of Community Colleges, 2023; Education Design Lab, n.d.; Fry & Cilluffo, 2019; National Center for Education Statistics, 2020; Peller, 2023; Zamani-Gallaher & Choudhuri, 2011). These students may be more likely to earn college credits at open-access institutions or through non-traditional settings, for which they will seek transfer opportunities to complete their degrees (Garcia & Leibrandt, 2020; Grubb, 1991). However, collectively, these students experience a lower probability of vertical transfer than other students (Bowen et al., 2009; Dougherty & Kienzl, 2006; Taylor & Jain, 2017).

Research has shown that state and institutional policy, or the absence of such formal guidance, positively and negatively impacts students' ability to earn course credits at one institution, transfer and apply those credits toward a degree at another institution, or co-enroll at multiple institutions (LaSota & Zumeta, 2016). As long as the public discourse persists that beginning at lower-division institutions and transferring to upper-division institutions in combination with earning transfer credits can be a more cost-effective way for students to earn a degree (Fonte, 2008; National Center for Education Statistics, 2020), policymakers need to have the student experience of new majority learner populations at the forefront of their thinking when ideating on processes that will improve transfer for all students. When the reality of the transfer process does not align with what has been imparted to students, the cost advantage may decrease because students take longer to transfer (Melguizo et al., 2008), lose credits, or earn excess credits through the transfer process (Monaghan & Attewell, 2015) or do not transfer at all (Belfield et al., 2017).

The second line of reasoning focuses on institutional practices and policies around transfer. Successful institutional transfer policies transparently communicate to students how credits will transfer and be applied between institutions, as well as provide adequate transfer

services at both sending and receiving institutions (Laanan et al., 2010; Wang et al., 2017b; Wyner et al., 2016). With enrollment declines across postsecondary institutions nationally, college and university leaders may be compelled to direct enrollment management efforts toward prospective transfer students who have already earned college credits or a sub-baccalaureate degree to bolster student headcount. While enrolling more transfer students can be a beneficial strategy, it does not always support the financial and reputational goals of four-year institutions (Grote et al., 2020), nor are there any assurances that recommended curricular resources and academic support services will be made available to support new majority learners on their transfer journeys (Handel, 2011).

The last line of reasoning pertains to higher education systems and state policies related to transfer. State governments are primarily responsible for the laws that promote the educational attainment of their residents. Influenced by the unique context of higher education and priorities for educating students, state policymakers decide to adopt various strategies to encourage students to enroll, persist, and complete a college education (Perna & Finney, 2014).

Concurrently, state policymakers are accountable for coordinating publicly supported two- and four-year colleges and universities within their borders. In the current socio-political climate, taxpayers are more carefully scrutinizing the return on investment of higher education. This translates into wanting to ensure public institutions of higher education are not duplicating or replicating their offerings to students, ensuring that a state is not “double funding” academic programs and services at multiple institutions. State governments’ transfer policies may be fiscally motivated, driven by the notion that appropriations to fund credits at two-year institutions are typically less expensive than those of four-year institutions. While both students and state governments can realize cost-savings through efficient and effective vertical transfer

pathways (Rouse, 1998), provisions within state transfer policy may not adequately support a clear path for students, as evaluations of these efforts have shown (Anderson et al., 2006b; Monaghan & Attewell, 2015; Roska, 2009; Roska & Keith, 2008).

Despite state-level efforts aimed at improving the facilitation of inter-institutional transfer for students through systemwide transfer and articulation policies, the transfer process is still complicated by numerous challenges. These challenges contribute to persistently low transfer rates, despite students' aspirations to transfer (Wang, 2020). Students frequently experience a loss of credits during the transfer process (Jenkins & Fink, 2015; Monaghan & Attewell, 2015; Taylor & Jain, 2017; Wang et al., 2021a; Wyner et al., 2016) with the onus on students to understand their transfer options (Bailey et al., 2015; Gurantz, 2015; Jenkins & Fink, 2015; Taylor & Jain, 2017; Wang, 2020; Wyner et al., 2016). While state articulation policies are designed to incentivize affiliated postsecondary institutions to cooperate in meeting the larger policy objectives of simplifying the transition for students (Hodara et al., 2016; Jenkins & Fink, 2016), there is limited empirical evidence that supports the efficacy of state- and system-level articulation agreements for improving vertical student transfer outcomes (Anderson et al., 2006b; Baker, 2016; Gross & Goldhaber, 2009; Kadlec & Gupta, 2014; LaSota & Zumeta, 2016; Senie, 2016; Worsham et al., 2021). More problematic, little empirical research exists that delves into how institutional actors and policymakers engage in policy development and implementation.

The purpose of this study is to investigate the implementation of state-level transfer policies developed to support the transition of two-year college students to four-year institutions in the state of Wisconsin. Most vertical transfer research is anchored in the community college setting, but Wisconsin presents a unique opportunity for examining transfer in the context of a state with two public postsecondary education systems that are evolving in ways that are

consequential to student mobility. Additionally, Wisconsin is distinct because it has the largest, oldest, and one of the few remaining state technical college systems in the United States that has not transformed into or been combined with a community college system. As state legislators introduce and expand upon existing transfer reforms and the two higher education systems evolve, my interest lies in understanding how practitioners within institutional settings interpret and implement these changes and policies. More specifically, this dissertation fills an empirical gap in the literature about state-level policies developed by policymakers and performed by institutional actors, guided by two research questions:

- 1) What policies have state and system-level policymakers directed at Wisconsin's public institutions of higher education to address college credit mobility and the inter-institutional transfer of students?
- 2) In what ways do public college and university transfer coordinators experience and apply these policies in their work?

As this introduction demonstrates, transfer is complicated and contemporary college students' intricate institutional enrollment patterns can be challenging to particularize. To aid in the mutual understanding and interpretation of the literature, I preview some foundational transfer terminology and explanations commonly used in higher education practice and research to provide a shared understanding of the key search terms used to perform the literature review of this dissertation. These basic definitions are not sufficient as a complete primer because of the complexity of policies and processes students experience when porting credits between institutions; however, more nuanced explanations will be provided in the literature review.

Applied Associate Degree: Programs where the intended outcome, upon completion of the program, is employment in a specific occupational role. Typically referred to as the Associate Degree of Applied Sciences (AAS) (Wisconsin Technical College System, 2024).

Articulation: A process that aims to maintain a seamless transition of students from one grade level to another and between different educational institutions. This requires the organization and standardization of activities that facilitate and monitor students' progress, encompassing the connections between schools, colleges, quasi-educational institutions, and other community organizations, all of which impact the mobility of students (Kintzer, 1970; WICHE, 2009).

Articulation Agreement: An agreement between institutions of higher education (namely between a two-year institution and a four-year institution) allowing for transfer of credit, either on a course-by-course basis or as a block of credits that will apply to a bachelor's degree. These agreements are generally for transfer between a degree program to another related degree program and are designed to award a student advanced standing in a specific major (Universities of Wisconsin, 2023b).

Credit Equivalency: Also referred to as course equivalency, course articulation exists when courses at different institutions are evaluated and deemed to be the same or equivalent (Bers, 2013).

Credit Mobility: The transfer of credits from a sending institution to a receiving institution (Hodara et al., 2017).

Credit for Prior Learning (CPL): Academic credit granted for demonstrated college-level knowledge and skills gained through learning experiences outside of the traditional college classroom using an established method for learning assessment (Lakin et al., 2015).

Collegiate Transfer: The Wisconsin state statutory reference defining Wisconsin Technical College System programs for the Associate of Arts or the Associate of Science degree; also historically referred to as Liberal Arts Transfer and College Parallel programs. These degree programs are designed to transfer to a four-year university and apply toward a baccalaureate degree (Wisconsin Legislative Fiscal Bureau, 2023).

Prior Learning Assessment (PLA): A process to evaluate learner competencies gained by a student through formal and non-formal learning experiences that occurred outside of the college classroom. Within the setting of an institution of higher education, the assessment evaluates whether the demonstrated learning outcomes are comparable to those required as part of a college-level course or academic program (Universities of Wisconsin, 2023b).

Reverse Transfer: The post-transfer recognition of college credits, earned at the four-year institution, for which the transfer degree-granting college accepts in transfer and grants credit toward the award of an associate degree, after a student transfers (Universities of Wisconsin, 2023b).

State Articulation Agreements: Also referred to in the literature as transfer agreements, these are the state-level arrangements between postsecondary institutions (usually public) permitting the transfer of academic credits by students from one institution to another. The agreements outline the requirements for students to move between colleges and universities (Anderson et al., 2006b; Baldwin, 2020).

Transfer: The process of credit, course, and curriculum exchange across different institutions (Kintzer & Wattenbarger, 1985; Senie, 2016).

Transfer Student: A designation given to a degree-seeking student who transfers college credit from one institution of higher education to another. Institutional classifications may differ.

To preview the following chapters of this dissertation, in Chapter 2, I provide a review and analysis of the literature on which I build my dissertation study. Acknowledging the existing scholarship about state and system-level approaches to transfer policy, in addition to other methods of college credit mobility, I reviewed studies that explore the relationship between state transfer policies and student outcomes. Through this inquiry, I gained a better understanding of the most significant issues with transfer that policymakers have identified, and the policy designs they use to target those issues. I also outline the methodological and theoretical framework influences on this study, noting the absence of qualitative research to examine transfer policy and the need to draw on theories from public policy and organizational collaboration to inform the study that follows.

In Chapter 3, I describe the study context and the qualitative methods employed for this dissertation. This includes presenting case study as the research approach to best answer my research questions and describing the site selection, sampling strategy, data collection, data analysis, and how interviews, document analysis, and observation were integrated throughout. This chapter also includes a discussion of my positionality and the techniques I used to establish the credibility and trustworthiness of my research. I conclude the chapter with a discussion about the limitations of this study.

In Chapter 4, I present the findings from the study. In response to the first research question, the document analysis revealed a complex and bifurcated landscape of transfer policies across the state of Wisconsin due to the presence and operation of distinct higher education systems. Overall, higher education in Wisconsin has accommodated several major policy and organizational changes over the past decade, but transfer legislation has been the primary driver for the two systems to work together. Transfer is a topic of priority for the state's policymakers who appear interested in encouraging cooperation between the two systems on behalf of students.

In response to the second research question, interviews with transfer coordinators illuminated the diverse nature of their institutional roles. Depending on their function within their college or university, participants' reflections about transfer policy designs and efficacy are mixed. Their perspectives provided an enhanced understanding of the policies in place and how, as transfer professionals who interact with multiple constituencies, they interpret and implement state and system-level policies in service of transfer stakeholders.

In Chapter 5, I discuss the implications of the findings for this study and suggest future directions for policymakers, practitioners, and researchers interested in state and system-level transfer policies and I share my concluding thoughts.

Chapter II: Literature Review

Before embarking on this study, it was necessary to conduct a comprehensive literature review of state postsecondary education transfer and articulation policies. Through this current synthesis of the research, I examined college student transfer and articulation in multiple forms and directions and acquired a better understanding of the logic and research behind varied state-level approaches to transfer and their policy implications. Through this review of scholarly work, I identified how researchers have approached this topic, assessed their recommendations for future lines of inquiry, and determined where gaps in our understanding exist. Holistically, the literature review helped me survey and analyze the contemporary thinking about statewide policies on transfer, guided me toward developing a study grounded in past research but additive to the overall understanding of this topic, and demonstrated the value of approaching the void in the research empirically.

Review Methods

This section provides an overview of the literature search process. It includes details of the databases accessed, the targeted search for research on identified topics, the keywords and terms used, and the inclusion and exclusion criteria used to gather relevant resources. Throughout the chapter, I provide the rationale that guided my search process and helped me identify literature that best aligned with the parameters of the review.

To conduct the literature review, I accessed several databases, including Education Full Text (EBSCO), Educational Resources Information Center (ERIC), Google Scholar, Journal Storage (JSTOR), ProQuest, and Scopus. Using a combination of databases has two main benefits. Firstly, it increases the number of publications found compared to using a single database. Secondly, it helps mitigate publication bias and enhances the validity of conclusions in

the literature review by extending the search to more databases. EBSCO is a research database for education scholars that includes full-text education journals, most of which are peer-reviewed and cover all levels of education. Using EBSCO helped to ensure I located and indexed rigorous research related to transfer in higher education. ERIC is an online library of education research and information sponsored by the Institute of Education Sciences (IES) of the United States Department of Education. It provides access to a comprehensive number of publications and types, including journal articles, books, research syntheses, technical reports, dissertations, policy papers, and other education-related materials. One of the primary features of ERIC is the collection of gray literature in education, which is usually free to access and is available to education policymakers. Because of their breadth and their specific focus on education, both EBSCO and ERIC were of particular help in performing the literature search.

Google Scholar was also helpful in broadly searching for scholarly literature on transfer. It provides a powerful, open-access search engine for research across numerous disciplines and sources: articles, theses, and books from academic publishers, online repositories, universities, and other websites. JSTOR is a multidisciplinary database that includes books, primary sources, and current journals in humanities and social sciences. ProQuest is a collection of various databases I used to access journals, dissertations, and other publications. Access to dissertations about higher education transfer helped me snowball my literature review search using the reference list and citations to discover additional authors and papers on the subject.

Scopus helped me identify peer-reviewed literature in the field of social science. It is the largest abstract and citation database of scientific journals, books, and conference proceedings, but it is also useful because of its author profiles which allowed me to search the bodies of work from researchers who have been recognized for their expertise in higher education transfer.

Based on the results of the database searches and prior knowledge of higher education transfer, I targeted specific scholarly journals for inclusion in the literature review. These publications include: *American Educational Research Journal*, *Community College Journal of Research and Practice*, *Community College Review*, *Economics of Education Review*, *Educational Evaluation and Policy Analysis*, *Education Policy Analysis Archives*, *Educational Researcher*, *Journal of Applied Research in the Community College*, *Journal of College Admissions*, *Journal of Higher Education*, *Journal of Policy Analysis and Management*, *New Directions for Community Colleges*, *New Directions for Higher Education*, *Research in Higher Education*, *Review of Educational Research*, *Review of Higher Education*, *Review of Research in Education*, *Sociology of Education*, and *Teachers College Record*. The focus on various peer-reviewed journals in education, economics, public policy, and sociology helped me understand the topic and compare research approaches from different fields. This allowed me to develop a deeper understanding and explore diverse perspectives on the subject. To focus the review on rigorous research, I selected reputable and peer-reviewed journals to ensure the trustworthiness of the studies' methodological approaches and results. The list of journals is not exhaustive as I included research published in other journals, if I found empirical studies relevant to higher education transfer that met the literature review's inclusion criteria.

Through the ERIC database search, I identified several gray literature resources to help inform the review. Materials and research not published through traditional academic channels are commonly referred to as gray literature. This includes reports, working papers, government documents, white papers, and evaluations. Many credible organizations, including government departments and think tanks, have written extensively on transfer in higher education. These resources provided valuable historical knowledge, national data, variable definitions, practitioner

perspectives, and databases of policies on collegiate transfer. They were used to supplement empirical studies on the topic. The resources I found through the review methods provided a comprehensive knowledge-base on higher education transfer. This supported the literature review and assisted me in reaching saturation by identifying repeated citations.

The following key terms were used when performing the multiple database searches for resources on higher education transfer and related topics: *transfer and articulation; block transfer; community college transfer; co-enrollment; credit mobility; general education core; guaranteed transfer; statewide higher education transfer policy; transfer associate degree; transfer credit loss; two-year college transfer; and vertical transfer*. Additionally, I entered several keyword variations: *articulation agreement; college credit applicability; community college-to-university transfer; course-to-course transfer; degree alignment; junior status upon transfer; lateral transfer; lower-division major pathways; reverse transfer; state higher education governance; state higher education policy; state-level degree attainment goals; statewide transfer model; statewide transfer pathways; state transfer system; swirling; transfer credit loss; transfer equity; transfer pathways, and transfer policy*. I identified some key terms and keyword combinations early in the literature review process as the major concepts related to this topic. I also expanded the use of additional terms and keywords as the continuous review of initial resources provided me with more search terms to use. This search method maximized my ability to search for and identify many relevant articles, ensuring a comprehensive literature review.

The first stage of the review involved developing a broad understanding of the topic from multiple perspectives in order to pare down the resources and limit them to research focused explicitly on transfer policy. I established the first inclusion criterion: to include quantitative,

qualitative, and mixed methods studies in the search. Quantitative analysis is useful for measuring the effects of state transfer policies. However, relying solely on measurable variables is insufficient in policy analysis studies. My review criteria included qualitative studies to understand college transfer as a policy issue in a statewide context and provide relevant information about policy goals, processes, and outcomes. Mixed methods research combining quantitative and qualitative analysis would bring together complementary aspects of both research orientations. In total, the initial yield of resources was 90 articles. After conducting the initial search using specific key terms and methodological criteria, I narrowed down my search to empirical resources found in peer-reviewed academic journals, edited academic books, professional journals, and government statistical reports. This approach ensured the review encompassed credible and rigorous scholarship. This resulted in the exclusion of unpublished dissertations and conference papers. Given that several credible organizations — such as The Aspen Institute, the Education Commission of the States, and the National Student Clearinghouse — have published extensive materials on the topic, I carefully incorporated gray literature resources into the review to complement the primary empirical resources.

Given that research on higher education state policy denotes the Master Plan for Higher Education in California and other actions in Florida, Georgia, Illinois, and Texas in the 1960s to be the first examples of state coordination of transfer and articulation between public institutions (Kintzer, 1996), resources published over the past 63 years were included in the review. However, attention to this topic remained minimal in the early part of that timeframe. I assessed titles, abstracts, and conclusions and kept resources closely related to the topic. I excluded those that did not directly examine transfer and articulation as state policy. The total number of studies that met the inclusion criteria and were finally included in this review is 60.

Results

Based on my review and literature analysis, I describe several key findings in the following sections. First, I present and define the distinct types of transfer and articulation approaches employed at the state- or system-level and examine the evidence of their impact on student outcomes, based on this review. Second, I explain the key policy problems and intended student outcomes reflected in the literature on transfer and articulation policy. Finally, I examine the national- or state-level evidence about the efficacy of these policies in terms of their impact on their stated goals. I wrap up each subsection by reflecting on the key takeaways from the research and opportunities for further inquiry to build upon the existing knowledge-base. The concluding section reviews the different methodological approaches scholars have employed to study these policies and provides options for theories that help to account for the phenomena central to this research study.

State- and System-level Policy Approaches to Transfer

The increased mobility of college students has compelled state policymakers to respond with policies that facilitate the movement of credits between institutions. For states to achieve their postsecondary education attainment goals, which center on raising the overall higher educational achievement and economic mobility of their residents, the need for comprehensive policy approaches to statewide transfer is urgent. Currently, states and higher education systems depend on multiple types of policies that support transfer, ranging from requiring institutions to assess and apply students' credits from various sources to determining courses and curricula that meet degree requirements at all public institutions making use of statewide transfer agreements.

Existing literature largely focuses on the status of state and system-level transfer policy and practice between community colleges and four-year institutions through upward (or vertical) transfer (Anderson et al., 2006b; Bogart & Murphey, 1985; Soler, 2020; Taylor & Jain, 2017;

Wellman, 2002), despite efforts of many higher education scholars to highlight other complex and non-linear patterns through which students transfer. While vertical transfer is the prevailing transfer pattern for college students, few scholars have synthesized the recent literature on transfer and articulation that recognizes the increased mobility of students who are attending more than one institution or acknowledges how transfer and credit mobility have gradually deviated from the vertical transfer pathway to include patterns of swirling (de los Santos & Sutton, 2012; Ignash & Townsend, 2000; Soler, 2020; WICHE, 2009), reverse transfer (Ignash & Townsend, 2000; Taylor, 2016; Townsend, 2001; Townsend & Dever, 2002; WICHE 2009), and lateral transfer (Bahr, 2012; WICHE, 2009). Without such an inventory of research, the field continues to have an incomplete understanding of the policies implemented for all patterns of transfer enrollment. Therefore, in this section, I present findings from the literature regarding multiple transfer pathways.

State policies related to transfer and articulation in higher education primarily address the transferability of college-level or equivalent credits as students move throughout the postsecondary education system (Anderson et al., 2006b; Bers, 2013; Hodara et al., 2017; Kintzer, 1996; Kintzer & Wattenbarger, 1985; Rifkin, 1996). Researchers indicate that credit mobility, as understood by most policymakers, is the vertical transfer pathway whereby students at two-year institutions transfer college credits to four-year institutions to continue their education in pursuit of baccalaureate degrees (Anderson et al., 2006b; Bender, 1997; Taylor & Jain, 2017). While this transfer pathway is recognized as the predominant way state governments coordinate transfer and articulation among postsecondary institutions (Ignash & Townsend, 2000), scholars have noted the multiple ways students accumulate college credits and other validated learning experiences that are not represented in the extant transfer research. For

example, Taylor and Jain (2017) examined the literature on the transfer function in American higher education and highlighted three primary dimensions of transfer. Their review offers a useful way for the field of higher education to categorize common transfer patterns and types beyond just vertical transfer. Still, the authors acknowledge that important credit transfer programs — such as transferring military credits and awarding credits for competency-based education — are absent from their review and the transfer literature as a whole.

The empirical knowledge base on alternate methods of credit mobility referenced by Taylor and Jain (2017) is limited; however, it has been suggested by several national postsecondary educational organizations that these approaches are an increasingly important way for states to expand access to educational opportunities and to improve degree attainment for their residents (American Council on Education, 2020; Bray & Beer, 2020; Garcia & Leibbrandt, 2020; Klein-Collins et al., 2020; Lakin et al., 2015; Peller, 2023; Pingel et al., 2022; Whinnery, 2017). As postsecondary enrollment patterns become more complex and less linear (Adelman, 2005; Barkley, 1993; Goldrick-Rab, 2006; Wang & McCready, 2013) and the demographics of transfer students and their lived experiences continue to diversify (Bray & Beer, 2020; Klein-Collins et al., 2020; Knoell, 1996; Taylor & Jain, 2017), these methods of credit mobility need further experiential investigation to identify their role in improving student outcomes at the state level. Additionally, these modalities are increasingly represented in several states' postsecondary educational policies because of federal and state training and workforce development strategies encouraging institutions of higher education to adopt processes that help students earn a credential or degree in a shorter amount of time which, in turn, allows them to enter the workforce more quickly (Bray & Beer, 2020; Whinnery, 2017).

Credit Mobility as Policy

Contemporary college students are increasingly mobile, learning through different modalities, studying in multiple locations, and accumulating college credits from a variety of sources in pursuit of postsecondary education (Causey et al., 2022; Klein-Collins et al., 2020; Peller, 2023; Pingel et al., 2022). Examples of these diverse ways of earning credits include college credit earned for military service-connected training and education, professional and work experience, and competency-based education (American Council on Education, 2020; Anderson, 2018; Bergman & Herd, 2016; Pingel et al., 2022; Ryu, 2013). Today's learners are also accumulating college credits before ever enrolling at an institution through college access opportunities such as dual enrollment programs and national examinations (Bragg et al., 2006; de los Santos & Sutton, 2012; Mosholder & Zirkle, 2007; Taylor et al., 2015). In order to capture this learning and translate it into the equivalency of college credits applicable to postsecondary programs of study, policymakers are adopting Credit for Prior Learning (CPL) as one method for formal recognition of the various ways learning can be equivalent and complimentary to credits earned in a traditional college classroom.

CPL policies, also commonly referred to as prior learning assessment (PLA), support the transfer of credits by requiring institutions of higher education to recognize, evaluate, and award credit for college-level learning gained outside traditional college-level academic instruction (Cherrstrom et al., 2021; Klein-Collins et al., 2020; Ryu, 2013). The American Council on Education (ACE) defines CPL as “academic credit granted for demonstrated college-level equivalencies gained through learning experiences outside of the college classroom, using one of the well-established methods for assessing extra-institutional learning, including third-party validation of formal training or individualized assessment” (Lakin et al., 2015) wherever students' knowledge and skills are determined to be equivalent to college-level learning

(Whinnery, 2018). ACE is the higher education membership organization that regularly publishes guidance for colleges and universities on implementing CPL programs, and their definition of CPL is widely used by higher education institutions and has guided the literature review of these policies.

State governments are increasingly creating the policy conditions for public colleges and universities to implement CPL as a strategy to bridge students' academic and work experiences (Bray & Beer, 2020; Garcia & Leibrandt, 2020; Peller, 2023; Whinnery, 2017). Reflective of the differences in postsecondary education governance among states, policymakers have codified some CPL policies in state statutes while others are delineated in system board policies (Whinnery, 2017). Researchers from the Education Commission of the States (ECS) conducted a survey of state policies in 2017 and found that as many as 24 states have a PLA policy allowing or defining the awarding of credits to students for non-traditional learning (Whinnery, 2017). As further evidence of the increased attention to CPL at the state level since the ECS publication, Higher Learning Advocates published a report on CPL policies by state. Using a broader characterization of CPL than the one used by ECS, Peller (2023) reported that 41 state governments had either implemented CPL policies or their state legislatures were considering legislation on this issue. Beyond the awarding of PLA credits, the Higher Learning Advocate research found that many state policies have added orientations to guide PLA cost and fees, transferability, support for military-connected students, and workforce alignment.

Curricular Equivalencies as Policy

Postsecondary education institutions have traditionally developed their own criteria to determine how students' previously earned college credits will transfer and apply to the

“receiving” institution, understood as the institution to which students are transferring credits to (Kintzer & Wattenbarger, 1985). Research suggests that university agents (administrators, faculty, and staff) have long had the autonomy to create the rules and norms for transferring credits and their applicability to bachelor’s degree programs (Schudde et al., 2021). This decentralized nature of higher education and the variation in how institutional actors interpret curricular equivalencies have resulted in momentum for increased policymaker involvement in systematizing these processes through state policy. With states and systems assuming greater responsibility for transfer and articulation, there is centralized decision-making that guides institutional policies that aim to make the process more uniform for students who are the intended beneficiaries (Bers, 2013; Kintzer & Wattenbarger, 1985; Robertson & Frier, 1996).

Foundationally, research suggests that determining how course and curricula completion — or learning that occurs outside of traditional postsecondary education but that nevertheless applies to academic programs of study — is awarded by different institutions means assigning common value to knowledge, regardless of how students gain that knowledge (Robertson & Frier, 1996). Policymakers and higher education governing bodies within a given state are in a position of authority to coordinate their affiliated institutions and guide them on how to evaluate course equivalencies, whether through incentives or regulations. Scholars have identified two main types of policies or mechanisms states have adopted for the purpose of developing curricular equivalencies between institutions to aid in the transfer of credits: 1) the designation of a common core of general education courses accepted at all public postsecondary institutions, and 2) the development of a common course numbering system (Anderson et al., 2006b; Hodara et al., 2017; Kintzer & Wattenbarger, 1985; Robertson & Frier, 1996).

General Education Common Core. The primary goal of state-level policy for general education common core equivalencies is to make sure course credits earned at any postsecondary institution, both two- and four-year institutions, are equivalent to each other through the transfer process (Roska & Keith, 2008). In the higher education literature, general education most frequently represents the requisite liberal arts courses (i.e., courses in the humanities, social and behavioral sciences, natural sciences, communication, and mathematics) that colleges and universities require all students to complete as a condition for graduation (Gaff, 1983; Warner & Koeppl, 2009). Various states and public university systems have standardized their general education curricula to make it easier for students to understand the course requirements for transferring from one institution to another — not just for students transferring vertically, but also for other common transfer patterns. Currently, there is widespread adoption of this policy. As many as 38 states formally provide direction to their public institutions regarding the mutually agreed upon designation of a group of general education courses that are fully transferable and applicable to the general education requirements of both associate and bachelor's degrees (Bers, 2013; de los Santos & Sutton, 2012; Goldhaber et al., 2008; Ignash & Townsend, 2000; Schudde et al., 2021; Taylor, 2016; Whinnery & Peisach, 2022; WICHE, 2009). By mandating curricular coherence between general education courses offered by two-year and four-year institutions, these policies provide some assurance that when students complete the general education core at one institution, the earned credits will be transferred and applied to degree requirements for all public system institutions within a state (Morgan & Teel, 1990; Whinnery & Peisach, 2022).

General education common core policies have evolved and, according to Kintzer and Wattenbarger (1985), state governments have not only used them as a mechanism to facilitate the

transfer of general education courses between institutions but also to exert their authority by directing institutions to offer certain types of coursework based on sector and mission (e.g., career and technical education at community colleges and upper-division coursework at four-year institutions) to avoid mission creep and duplication of academic programming among colleges and universities within state boundaries. Mission creep is a higher education term used to explain what occurs when a college or university has educational offerings that are outside of their stated mission, in conflict with or duplicative of other campuses' academic offerings (Bastedo, 2009).

Common Course Numbering. State policymakers implement common course numbering to ensure uniformity in lower-division course numbering conventions across public two- and four-year institutions (Whinnery & Peisach, 2022). The justification for this requirement is that it provides students and advisors a shared, uniform set of undergraduate course designations to determine curricular equivalencies and degree applicability of transfer credit statewide. Even though these policies intend to ease the comparison of course requirements across institutions, states have not adopted this form of transfer and articulation policy as broadly as the general education common core — likely because of the associated costs, bureaucracy, and challenge to faculty academic freedom. Indeed, only 20 states have such a requirement (Whinnery & Peisach, 2022). Limited extant research addresses the effectiveness of common course numbering, although the literature reveals the policy has showed utility by helping states with significantly mobile student populations maintain course comparability and assist in student and degree tracking (Barkley, 1993; de los Santos & Sutton, 2012; Goldhaber et al., 2008; Taylor, 2016; WICHE, 2009).

Transfer and Articulation Agreements as Policy

Statewide transfer agreements are one of the most prevalent policy tools state policymakers use to facilitate and streamline transfer between institutions of higher education (Anderson et al., 2006a; Anderson et al., 2006b; Bers, 2013; Grote et al., 2020; Grubb, 1991; Hodara et al., 2017; Ignash & Townsend, 2000; Kintzer & Wattenbarger, 1985; LaSota & Zumeta, 2016; Roska & Keith, 2008; Schudde et al., 2021; Whinnery & Peisach, 2022) with 35 states reporting to the Education Commission of the States that they have a statewide agreement among postsecondary institutions for vertical or upward transfer from two- to four-year institutions. Scholars frequently classify these statewide agreements according to three categories: 1) state-mandated policies and practices; 2) voluntary statewide and inter-institutional agreements; and 3) formal, legally based state policies (Barkley, 1993; Hagedorn & Hu, 2014; Kintzer, 1970). Institutions in states without formal articulation approaches make independent decisions, with no state mandate, about the conditions of transfer and enter local or regional agreements with other colleges and universities (Kintzer & Wattenbarger, 1985; Taylor & Jain, 2017), and researchers note that voluntary agreements on their own do not provide the greatest transfer opportunities for students, as demanded by state policymakers (Robertson & Frier, 1996). Some higher education governing policies — like those in California, Connecticut, and Minnesota — only apply to certain institutions or sectors. The literature does not classify them as “statewide” agreements (Whinnery & Peisach, 2022). Historically, individual colleges and universities entered these agreements voluntarily, while state governments have increasingly played a greater role in developing and mandating formalized statewide transfer agreements (WICHE, 2009).

Although most state-level policy is designed to facilitate more seamless vertical transfer for students, scholars have identified an emerging trend in policy to address other patterns of

student mobility categorized as reverse transfer (Anderson, 2015; Giani et al., 2021; Goldhaber et al., 2008; Taylor, 2016; Townsend, 2001; Townsend & Dever, 2002; Whinnery & Peisach, 2022; Yang, 2006). Half of the United States have established a state-level process to award students credit through reverse transfer (Whinnery & Peisach, 2022) — albeit there is some debate in the literature on how to define reverse transfer — which makes accurate measurement of the frequency of the policy across states a challenge (Friedel & Friesleben, 2017; Taylor, 2016; Townsend & Dever, 2002). As an example, the origin of the term “reverse transfer” denotes a transfer pattern that is the reverse of the traditional vertical transfer pathway (Townsend & Dever, 2002).

In the Education Commission of the States 50-state comparison of transfer and articulation policies, Whinnery and Peisach (2022, para. 1) define reverse transfer policy as a requirement for all “public institutions to implement the process of retroactively granting an associate degree to students who have not completed the requirements of an associate degree before they transferred to a four-year institution.” Townsend and Dever (2002) refer to transfer students under this categorization as *undergraduate reverse transfer students*. Using this definition, state policymakers have acknowledged an important transfer student pattern; while the preference of two-year institutional leaders is for students to finish their associate degrees before transferring to a four-year institution, the majority of transfer students transfer before completing their degrees (Hoachlander et al., 2003; McCormick & Carroll, 1997; Shapiro et al., 2015). Therefore, undergraduate reverse transfer students can earn their associate degrees retroactively after they begin their bachelor’s degree programs. A cited benefit of reverse transfer for students is the option to be awarded a meaningful degree on the path to a baccalaureate degree that could increase their potential for securing a job and increase their earnings

(Blackwell, 2018), although the evidence on receiving an associate degree prior to transfer and bachelor's degree completion is mixed (Giani et al., 2021; Monaghan & Attewell, 2015; Shapiro et al., 2015). The benefit of this policy for two-year institutions is that it enables them to increase the number of degrees awarded, which might translate into higher performance funding or other state-supported rewards for degree completion (Bers, 2013).

The other type of reverse transfer refers to those students who move from a four-year institution to a two-year institution (Goldhaber et al., 2008; Townsend & Dever, 2002). There are several reasons and ways in which this pattern occurs. Townsend (2001) reveals that reverse transfer can be a strategic and temporary option for students — such as taking required degree courses at a two-year institution over the summer, concurrently enrolling at both two- and four-year institutions or enrolling in a two-year college after a bachelor's degree is obtained. According to Yang (2006), college students reverse-transfer for reasons such as lower tuition and cost of attendance at two-year institutions, or poor academic performance at a four-year institution. In the literature, the students who hold bachelor's degrees and return to two-year institutions for additional education are often studied as post-baccalaureate reverse transfer students (Friedel & Friesleben, 2017; Hagedorn & Castro, 1999; Townsend & Lambert, 2002). These students tend to re-enroll at a two-year institution a few years after receiving a bachelor's degree (Barnes & Robinson, 1999) and return to college for additional training to supplement their existing degrees for career reasons (Hagedorn & Castro, 1999; Townsend & Lambert, 2002). By adopting statewide transfer policies that deviate from the traditional transfer pathway of vertical transfer, state policymakers are recognizing that student mobility occurs in several ways, and these students can also benefit from formalized transfer agreements among public higher education institutions (Taylor, 2016).

Problems of Practice and Applied Policy Solutions

Summarizing the aforementioned evidence about the various technical aspects of statewide transfer and articulation policies, we can discern three main constituencies targeted through these agreements: students, postsecondary institutions, and state governments. This section will synthesize the research about the critical transfer problems for each of these constituencies and the applicability of statewide policy solutions toward efforts affecting positive transfer outcomes.

Students. Students rely on publicly available information about credit mobility to help them decide which courses to take pre-transfer and how they will apply to their degree programs post-transfer. Prior research shows transfer students have insufficient and convoluted information when navigating the transfer process (Allen et al., 2014; Government Accountability Office, 2017; Schudde et al., 2018; Wang, 2020; Wang, 2021); among higher education institutions across the country, the availability of clear transfer information varies dramatically. When students cannot access essential information about state transfer policies, there can be serious consequences to students related to their transfer decision-making — such as credit loss, extended time to complete their degrees, and the financial costs associated with unclear and inefficient degree paths (Hodara et al., 2016; Monaghan & Attewell, 2015; Roska & Keith, 2008; Taylor & Jain, 2017; Wang, 2021).

In practice, statewide transfer and articulation agreements provide formal guidance, structure, and clear information to students early in their educational paths, with detailed information about how their earned credits and credentials will transfer from one institution to another. They often enumerate the additional benefits conferred upon students at the time of transfer, such as guaranteed enrollment at four-year institutions, as well as enrollment standing (Baker, 2016; Holod et al., 2019; Robertson & Frier, 1996). Scholars have explored the varied

ways this information is distilled and presented to students, most commonly in the form of transfer guides that are aligned with state and institutional policies (Schudde et al., 2021), web-based information systems that allow for students to evaluate and assess credit equivalencies on which they can base transfer and enrollment decisions (Bers, 2013; de la Torre, 2007; WICHE, 2009), and state-developed or external vendor course equivalency systems that students can use to audit their degrees (Taylor, 2016). Regardless of the presentation format of transfer information and statewide articulation agreements, an important callout from the literature is that these options require continuous updating, particularly as policies and agreements evolve, which can be challenging, especially in states where institutions change courses and curricula frequently. Reviewing and maintaining the resources periodically is the preferred practice to meet the aim of empowering transfer students with clear information on which they can make decisions (Bers, 2013; Taylor, 2016).

Institutions. Despite the promise of statewide transfer and articulation policies to enhance the partnerships between public postsecondary institutions across a state, scholars reveal the structural imbalance of power in the relationship between four-year universities and two-year colleges (Cohen et al., 2014; de los Santos & Sutton, 2012). Universities often dominate in the transfer relationship because they have the authority to specify the course credits and validated learning that may be accepted for transfer credit and applied toward a bachelor's degree; these decisions are often dictated to two-year institutions rather than being a collaborative effort. Credit transfer and articulation toward a degree continues to be an issue as research suggests receiving four-year institutions frequently do not accept credits previously earned at other institutions based on the evidence of the significant proportion of credits lost by students who transfer (Cohen et al., 2014; Dougherty, 1994; GAO, 2017; Monaghan & Attewell, 2015;

Simone, 2014; Taylor & Jain, 2017). To further illustrate the issue with evidence, Monaghan and Attewell (2015) analyzed nationally representative data and found that 14 percent of community college transfer students lost over 90 percent of their credits after transfer; 28 percent of students lost between 10 percent and 89 percent of credits; and 58 percent of students lost less than 10 percent of their credits after transferring. While this study showed that just over half the community college students lost only a small percentage of credits, all students in the sample experienced at least some credit loss during transfer when receiving institutions did not award a course equivalency.

For institutions, transfer and articulation agreements can be an essential resource to college personnel at both two- and four-year institutions who use them to help guide students through their transfer pathways (Hodara et al., 2017; Schudde et al., 2021); however, research shows a scarcity of advising resources at institutions, particularly at community colleges (Allen et al., 2014; Wang, 2021), although some receiving institutions also face similar advising constraints (Government Accountability Office, 2017; Herrera & Jain, 2013). When advising is limited, the literature reveals that transfer students self-advise with whatever information is available, despite the incoherence of that information (Wang, 2020). However, transfer agreements can also serve as a conduit for feedback between personnel at institutions, enabling the analysis and sharing of strengths and barriers within transfer relationships to improve the process for students.

States. In a multi-state study of transfer policies, Hodara et al. (2017) found institution-driven transfer systems less preferable to statewide transfer agreements that are more transparent and aligned. When institutions drive this process, it leaves more room for error because there is no systematizing of information and college personnel must draw from various resources. For

state governments and governing bodies, a positive result of transfer agreements is their ability to encourage cooperation between institutions and reduce redundancy in educational missions and academic programming. Because they generally include all institutions within a state, transfer agreements supersede the need for individual institutions to create their own agreements.

However, Jenkins and Fink (2016) noted that, even when states employ transfer agreements, institution-to-institution agreements are still necessary at the academic department level because of curricular complexity. When students experience issues of misinformation or non-adherence to the agreements, state governing bodies are often the entity that works to resolve issues related to institutional compliance.

Evidence of State Transfer and Articulation Policy Efficacy

The previous description of statewide transfer and articulation policies, the noted issues they are designed to address, and their applicability to those problems are demonstrative of the influence of statewide policies on the transfer function of postsecondary institutions on a national scale. Even though state transfer policy diffusion is evident through expanded implementation across states, there is little evidence that empirical research informed policy adoption. The extant, peer-reviewed literature on the efficacy of state transfer and articulation policy is limited but growing. The following is a synthesis of the research analyzing prior studies dedicated to the analysis and evaluation of statewide policies, encompassing all public postsecondary institutions within a state and their impact on transfer student outcomes.

National Research. Across the peer-reviewed literature, I identified four quantitative studies using nationally representative data to examine the impact of state transfer policies and one source of nationally descriptive data that is fundamental to this line of inquiry but is not empirical or peer-reviewed. The most cited of all these studies is Anderson et al. (2006b) which

explores the effectiveness of statewide articulation agreements on the probability of transfer. Using the USEd's Beginning Postsecondary Students Longitudinal Study (BPS), which follows a cohort of students who enrolled in their first year of postsecondary education and tracks their paths through postsecondary education, Anderson aimed to explore statewide articulation agreements and their impact on students' likelihood of vertically transferring. After controlling for several student-level covariates, the researchers did not find evidence that a statewide transfer agreement impacted the outcome of interest. While this study is formative to our understanding of the differences in transfer rates between states with policies and those where policies are absent, a critique of the study raised by the authors themselves acknowledges that using the BPS dataset is not reflective of the political or social contexts of states which are influential in state policy implementation. Additionally, the study focuses on a small number of states due to the researchers' design to explore a strict definition of statewide policies in existence by 1991, after which the proliferation of statewide policies occurred. The BPS dataset is also limited to a cohort analysis of five years, which may not be enough time to capture the entire bachelor's degree trajectory for transfer students. However, the authors intended this study to be a preliminary analysis, and they provide several recommendations for future studies the field of higher education could build upon.

Building from Anderson et al. (2006b), LaSota and Zumeta (2016) used BPS to investigate upward transfer. Their study sought to discern individual, institutional, and state factors contributing to transfer from two-year institutions to four-year institutions, with state articulation policy acting as one influence. When examining specific statewide policies such as the presence of a statewide transfer guide and common course numbering, which the researchers contend would not exist in the absence of state policymaker intentionality and coordinating

activities to improve upward transfer, the researchers found a positive association between students' probability of upward transfer and the implementation of statewide transfer guides and common course numbering. As a result of the dataset used, La Sota and Zumeta could disaggregate the data by students' characteristics and found that common course numbering was the most beneficial statewide transfer policy for low-income and first-generation students, two populations highly represented at two-year institutions. The authors noted another limitation in using national datasets — they do not offer representative samples of students from individual colleges or states.

Roska and Keith (2008) used the USEd's National Education Longitudinal Study (NELS) database, a nationally representative sample of students followed through secondary and postsecondary years. Their study identified the increase of articulation policies through state legislation and sought to prove a hypothesis that transfer and articulation policies intend to prevent the loss of credits when students transfer between institutions in a state, as opposed to the Anderson et al. (2006b) study which was interested in transfer rates as an outcome. The researchers formulated their assumptions based on a review of the language of state-legislated articulation policies, which they assert are oriented toward easing the transfer process for students with transfer aspirations rather than improving the overall transfer rate of students. To this end, their outcomes of interest are based on the stated intentions of states' policies: preservation of credits, time to degree, and bachelor's degree attainment. Like other national studies, the results of this study revealed that implementation of statewide agreements was not statistically significant on these three measures. However, this study is notable because it acknowledges the challenge of using national datasets when states' policies vary in their stated intent and calls for more intentional evaluation of the underlying assumptions of articulation

policies and analysis of where there are gaps between the intended purpose of the policies and student performance.

Finally, national surveys of state higher education agencies contribute to our knowledge base of statewide transfer policies. While the Education Commission of the States (ECS) survey (Whinnery, 2018; Whinnery & Peisach, 2022) is not an empirical or peer-reviewed research study, it is, nevertheless, fundamental to research on statewide policy. It measures the existence of distinct transfer and articulation policies and is cited in nearly every study on this topic. Researchers rely on the ECS survey to demonstrate trends, comparisons, and state policymakers' interest in transfer while providing some commonality in definitions and providing links to state policy for further analysis. Empirically, Ignash and Townsend (2000) surveyed executive directors of state higher education and community college agencies in 1999 to determine which states had statewide articulation agreements. If states indicated the presence of such agreements, the researchers further examined components of those agreements to categorize them and develop guiding principles for establishing strong agreements that originated from a deeper review of state-level policies. Transfer researchers have also used the Ignash and Townsend study as a tool to gauge the relative strength of statewide agreements in promoting effective student transfer.

There are clear constraints to using national datasets to explore the efficacy of statewide transfer and articulation policies on transfer rates and other student outcomes associated with the intended purposes of statewide policy. Researchers of transfer in higher education have consistently drawn attention to the variations in definitions of transfer and transfer rates nationally (Roska, 2009; Wickersham, 2020), which leads to mixed results when there is heterogeneity in state designations and calculations. If causal evidence is the goal, Roska (2009) encourages strengthening future research on statewide transfer and articulation policy using

state-level longitudinal student-level data pre- and post-transfer, and state-level data before and after policy implementation to examine the impact of policy implementation. Continuing to identify trends across states and accounting for factors relative to state context through survey data would be helpful in explaining how state policies differ from each other and how they evolve over time.

State studies. Across the peer-reviewed literature, I identified four empirical studies on state transfer and articulation policies. In California, Baker (2016) examined the statewide policy known as Associate Degrees for Transfer (ADTs), a set of degrees jointly created by the California Community Colleges system (CCC) and the California State Universities (CSUs). While not entirely a statewide policy due to the omission of the University of California System institutions, enrollments in the community colleges and CSUs represent most of the state's student population. As recommended by Roska (2009), employing research designs to examine data both before and after policy implementation, the researcher uses a difference-in-differences-in-differences (DDD) framework to estimate the effect of the law creating ADTs and finds mixed effects on the two primary outcomes of interest: the number of associate degrees granted and the number of CCC students who transfer to CSUs. The joint development of ADTs increased the number of conferred degrees but did not significantly affect the number of students transferring between the two systems. There are also nuances within the policy — such as not all CSU campuses accepting all ADTs — so the policy does not address all barriers for transfer students.

In a more recent study, Worsham et al. (2021) examined North Carolina's Comprehensive Articulation Agreement (CAA) revising an existing agreement between the North Carolina Community College System (NCCCS) and the University of North Carolina (UNC) System. Like California's ADT, the CAA in North Carolina provides 60 transferable

credits to community college students to optimize the number of transferable credits toward the bachelor's degree, reduce excess credit accumulation, and decrease time to degree. The researchers quantitatively applied Critical Policy Analysis to explore the effects of North Carolina's policy for historically marginalized students. Similar to the California study, quasi-experimental methods — specifically difference-in-differences (DID) — were used to estimate the impact of the CAA revision on key transfer outcomes and differential impacts across racial and ethnic groups. The North Carolina study differs from the Californian study in that the policy change occurred in 2014, allowing several years between implementation and evaluation for effects to become observable. While the CAA does not explicitly mention race in the policy, this study is significant in its acknowledgment of historical inequities for students on the transfer pathway. Worsham et al. (2021) observed differential impacts of the CAA revisions by race/ethnicity, which raises concerns about transfer policy solutions that should be beneficial for all students.

Boatman and Soliz (2018) examined the effects of Ohio's statewide articulation and transfer policy, called the Ohio Transfer Module (TM); the agreement allows students who complete a set of lower division academic courses at one institution to transfer those courses to any receiving institution in the state. The Ohio Board of Regents requires colleges and universities to define which courses at their institution satisfy general education requirements at all public institutions across the state, and the information must be made publicly available to students after being approved by the Board of Regents. If students complete any of the specific courses, the courses and credits are guaranteed to transfer, and the credits will apply to the degree program as fulfilling the general education requirements of that degree. Unlike the ADT policy in California, Ohio's TM is not a pathway degree; students may choose to complete any number of TM courses before transferring.

For this study, the researchers accessed administrative data from all public institutions in Ohio containing student demographics, GPA, transcript information, and financial aid records. Using a tracking period of six years, Boatman and Soliz use inverse propensity score weighting to analyze the effects of completing the full TM on their outcomes of interest. They compare the transfer and post-transfer outcomes of students who completed the Ohio TM to similar students who did not complete it and find evidence suggesting that fulfilling these requirements is associated with higher rates of transfer, associate degree completion, and portability of credits; however, for students who go on to earn a bachelor's degree, the TM may increase time to degree. Results of this study support state policymakers' decisions in Ohio to use a statewide articulation agreement to encourage transfer between public institutions with one caveat: the researchers descriptively note that the TM requirements align most closely with the degree requirements for an Associate of Arts degree. For those students at two-year institutions in technical degree programs, the TM would not make sense as a degree pathway because of the general education curriculum. The study notes that institutions offering primarily technical degrees reported almost no students completing the TM.

Schudde et al. (2021) conducted a qualitative study on statewide transfer and articulation agreement policy at all public institutions in the state of Texas through interviews with 65 transfer-intending students. The researchers explored how students interpret messages about state policies designed to improve transfer. The interview participants in this study revealed that state policymakers do not actively promote information about policies publicly, so communication is filtered through postsecondary institutions, resulting in inconsistent information and advice. Those students who were aware of Texas's transfer policies adhered to the course requirements, while many students in the study reported being confused by conflicting information or unaware

of the policies altogether. This study suggests the importance of marketing comprehensive resources to students, like transfer guides, to help students navigate state transfer policies supporting their mobility between institutions, particularly in states like Texas, where higher education is decentralized.

Based on the evidence of state transfer and articulation policy efficacy, we can conclude that the limited number of empirical studies on the impact of these policies report mixed results. Given the frequency with which states are implementing procedures to better articulate credit mobility between two- and four-year institutions, more inquiry into their effectiveness is warranted and the results of studies already undertaken demonstrate the need for a better understanding of policy design — such as the differences between California’s ADT and Ohio’s TM, both with elements of a common core of courses but contextualized specifically to each state’s higher education environment.

Scholars are turning their attention to various outcomes of interest other than transfer rates for which policies may not be aligned. The research should further investigate the multiple outcomes related to policy intent by continuing to review the language of these policies and alignment with policymakers’ objectives for transfer. Obtaining appropriate datasets for studying state-level transfer policies is challenging; while national data sets are limited in some ways, there is consistency in definitions and calculations of transfer across states. However, using state-level data allows for deeper inquiry into the specific cultural, historical, and political factors behind policy design.

Methodological Approaches to Studying Statewide Transfer Agreements

Researchers studying statewide transfer agreements use a variety of methodological approaches to investigate the effect of statewide transfer agreements in states that have adopted

such policies. As demonstrated in this review of the literature, most of the empirical work to date is quantitative, involving quasi-experimental designs aimed at establishing causality between the intervention and outcomes of interest. By using methodological approaches such as DID or DDD, researchers signal the importance of understanding what the conditions were prior to the adoption of a policy and what the conditions are following policy implementation. As more states develop articulation agreements or refine the processes already in place, reviewing these policies longitudinally can give us a better understanding of policy impact on outcomes that are incentivized by specific policy designs. These studies also point to the need for more research into how policymakers make decisions, specifically in terms of revising policies over time. Are they using data to evaluate policy efficacy and basing their revisions on that data?

There are also relatively few qualitative studies that highlight the voice of those who are the intended beneficiaries of statewide transfer and articulation policies. Schudde et al. (2021) followed this line of inquiry with students to investigate a long-standing problem noted within the transfer research: transfer information is complex, and states and institutions can make improvements so students can better navigate intricate systems. Additional research on institutional actors' perceptions of policies and how they implement them could help us learn from their practices. We also need more studies conducted on different states' policies and a better understanding of why states choose not to develop statewide transfer agreements, given their increasing popularity. Finally, since there is a precedent of collecting national data through surveys of state education agencies, approaching the study of statewide agreements through a mixed methods design could help us gain a more holistic understanding of individual perspectives of policy, which may better inform the outcomes of interest studied through quantitative designs.

Frameworks for Understanding State Transfer Policy in Higher Education

Following this review of the literature on statewide transfer policy in higher education, it is clear there are still numerous questions to answer about this topic. As a field, we need to extend our existing knowledge about the role of state policy in guiding the ways two-year colleges prepare students pre-transfer and how four-year colleges use policy guidance in the post-transfer phase. What roles do institutional agents play in the transfer process? What are the characteristics of states with strong higher education partnerships? How do these institutions negotiate with one another about the terms of the policy and who within institutions makes those decisions? Research to answer these questions is much needed, as is an overarching theoretical model to inform this line of inquiry.

Most existing research on statewide transfer policies does not employ a theoretical framework; arguably, this topic is under-theorized, and the work could benefit from research designs guided by frameworks that help us understand the complex ecosystem in which transfer policy operates. However, higher education policy theories are abundant, and scholars apply various frameworks to understand phenomena and extend our existing knowledge-base on topics related to state- and system-level policy implementation. To that end, I identified three related frameworks relevant to my line of inquiry: principal-agent theory; street-level bureaucracy, and Yeh and Wetzstein's (2020) framework describing multiple types of collaborative relationships between higher education institutions. In the following section, I provide a succinct summary of these frameworks and explain how they could collectively support empirical research about postsecondary education transfer policy implementation.

Principal-agent Theory

Researchers who study higher education policy and reform have applied the principle-agent framework to make sense of the relationship between policymakers at the state-level and

their affiliated institutions (Hillman et al., 2014; Lane, 2007; Titus, 2009). One way in which state policymakers approach policy implementation is to use incentives or penalties to persuade postsecondary institutional leaders to support their statewide higher education agendas. We can view state-level organizations — whether legislatures, governors’ offices, boards of regents, and state higher education agencies — as principals working to achieve various statewide higher education policy goals. To accomplish their agendas, they must delegate responsibilities to agents (the colleges and universities) to implement the policies necessary to achieve the desired results. Agents are the receptors of the principals' resources (state financial support for higher education) and, in return, they perform the policy actions desired by the principal. This is a helpful lens through which to view systemwide transfer policies, as the relationship between principals and agents is critical to dissemination of the policies.

Street-level Bureaucracy

Street-level bureaucrats are government agents who work directly with the public and are the face of government policies (Lipsky, 1969). While their jobs are to help people on an individual basis, policy often forces them to take a more uniform approach to their work which can lead to uneven results for beneficiaries of services created through policy. Research about street-level bureaucracy centers on three key characteristics: the impact the bureaucrats have on service-users’ lives through their interactions and decision-making and the amount of discretion bureaucrats have in their work as compared to those who are not “street level” or interacting directly with constituents. The quality and types of services delivered are therefore closely related to the behaviors of bureaucrats who have face-to-face interactions with stakeholders (Chang, 2022). As an example, researchers have used this lens in a study of vertical transfer between community colleges and a College of Engineering at a research university, where

faculty and academic advisors were the street-level bureaucrats responsible for policy implementation (Grote et al., 2020) and in a study of developmental education reform in Florida (Mokher et al., 2022). Using street-level bureaucracy in the study of transfer could help explain differences in institutional practices because of policy implementation and the possibility that differential interpretations of transfer policies may lead to different student-level results.

Institutional Collaboration Framework

According to Yeh and Wetzstein (2020), research on student transfer increasingly examines postsecondary education collaboration to improve transfer and completion rates. They found that few existing studies used “transfer partnership” to define the relationship between colleges and universities, although many studies discuss partners and partnership. The authors’ definition of transfer partnership is from Kisker (2007), who defined it as, “collaboration between one or more community colleges and a bachelor-degree granting institution for the purpose of increasing transfer and baccalaureate attainment for all or for a particular subset of students” (Kisker, 2007, p. 284). Yeh and Wetzstein’s framework, focusing on the complexity within transfer partnerships, can serve as an assessment describing postsecondary educational partnerships along a continuum. On one end of the continuum is a categorization of institutions that have just a basic working relationship labeled “cooperation”, while at the other end of the continuum is the highest level of partnership called “alliance” which signifies broad and strategic collective action toward a mutual goal, improving student transfer. Stronger transfer partnerships can be a way for institutions within a state to make the transfer experience more seamless for students, thereby improving student outcomes.

As evidenced by the review and synthesis of the literature, theoretical frameworks are underutilized in transfer research and there is a lack of an overarching theory that can explain the

relationship between all institutional experiences within the context of a state. We could integrate the three policy-related frameworks previously presented to strengthen our understanding of vertical transfer from multiple perspectives: at the individual, institutional, and state levels. Integrating aspects of these three frameworks offers the potential to view the relationship between state policymakers and public postsecondary institutions as an interrelated system of independent organizations, including individuals at the institutions responsible for policy implementation. As the literature reveals, there is a scarcity of studies that incorporate all institutions within a state system, and the combination of these three frameworks helped me examine my key dissertation research questions in the context of a single state: 1) What policies have state and system-level policymakers directed at Wisconsin's public institutions of higher education to address college credit mobility and the inter-institutional transfer of students? And 2) In what ways do public college and university transfer coordinators experience and apply these policies in their work?

Summary

Through this literature review, it has become evident that existing studies examine various elements of transfer and credit mobility in postsecondary education, but few examine statewide transfer policies applicable to all institutional partners within a state. More studies set within the context of a single state are emerging, and this dissertation will add to the growing body of evidence on state-level transfer and articulation policies through a qualitative approach. There is a need for the type of research that my study seeks to fill by providing a depth of information about institutional agents and their experiences with policy implementation. The results could inform policymakers, practitioners, and other researchers about the complexities of transfer policy and how to use multiple sources of data and evidence to improve it.

There are a small but growing number of empirical studies examining state transfer and articulation policies and within those studies, there needs to be more theoretical grounding. Most of the studies use a quantitative research design. Using a qualitative research design will center the voice of institutional personnel and illuminate their experiences as bureaucratic policy implementers who most closely work with several constituencies impacted by statewide policies: students, administrators, faculty, leadership, and others. Additional empirical evidence, guided by frameworks to help us understand the complicated phenomena of transfer, is needed to substantiate policy development and adoption. There is opportunity to generate knowledge related to the transfer ecosystem in a single state through studies focusing on two- and four-year institutions, accounting for contextual factors and how they apply to diverse institutions. The survey of the literature, research methods, and theoretical frameworks has informed this research that sought to capture important aspects of statewide policy design, how the policy is interpreted and implemented at the institutional level, and how transfer policy can be built on or improved to achieve desired policy outcomes, namely student transfer and credit mobility, between public postsecondary institutions.

Chapter III: Methodology

This chapter details the methodology employed to examine how transfer coordinators at public postsecondary institutions in Wisconsin perceive and implement statewide transfer policies. First, I provide justification for the methodological direction of this dissertation — specifically a qualitative case study design — as the method that best suits my research questions. I also briefly outline the qualitative elements contributing to the holistic case study design and how they were integrated. Second, I describe the organizational contexts of the sites and the characteristics of the participants in the sample of this dissertation. Third, I provide details regarding data collection and the procedures I used to analyze my data. Finally, I conclude by addressing my positionality as the researcher studying this topic, as well as the ethical considerations, credibility, trustworthiness, and limitations of this study.

Qualitative Approach to Research

To understand the transfer policy landscape of Wisconsin and the ways in which transfer coordinators at public postsecondary institutions experience and implement these policies, I used a constructivist approach as the foundation of my research method. This approach suggests that individuals construct reality through their interaction with the social world, and that multiple interpretations exist. Qualitative researchers are interested in the ways people make sense of and experience the world. The researcher “brings a construction of reality to the research situation, which interacts with other people’s constructions or interpretations of the phenomenon being studied” (Merriam, 1998, p. 22). Research examining the policy interpretations and applications of multiple transfer coordinators representing various institutions requires the researcher to extensively describe and interpret the complexity of the phenomenon while recognizing that inferences are filtered through their own views.

I used qualitative methodology as my primary method to learn how adopted state transfer policies are translated into action. Transfer coordinators — serving in the role of “street-level bureaucrats” — are responsible for policy translation and use personal and professional discretion when implementing policies (Dunn, 2003). Given the number of transfer coordinators across the state and the specific context of each institution, I hypothesized that statewide policy implementation is not homogeneous. Therefore, qualitative research is useful to capture the “day-to-day realities” of policy and offer a “ground-level” understanding of implementation as it occurs at individual colleges and universities (Rist, 1994).

Qualitative research studies can answer questions that are not easily quantifiable. In fact, scholars have argued that public administration and policy are always taking place in normative and dynamic contexts of everchanging (and rarely quantifiable) assumptions (Elías, 2020). While policy research traditionally relies on quantitative analysis, it can be argued that “An overreliance on one particular research approach can lead to blind spots in the field” (Heck, 2004, p. 181). To date, we have primarily relied on quantitative approaches to examine the implementation of statewide transfer and articulation policies. The quantitative approach to the research discussed in the literature review revealed mixed information about how effectively these policies contribute toward their intended outcomes. Alternatively, this study supports the qualitative interpretation of relationships between policy actors and their environments and will provide more nuanced information to explain complex issues (Rist, 1994). By studying transfer policy implementation through the firsthand experiences of individuals who interact with the policies in their daily work, my goal is to add to the empirical research on this topic by gleaning deeper insights into the phenomenon in ways that are not possible through prior quantitative research designs.

To effectively conduct a qualitative study to understand transfer policy implementation in a state, the researcher must “elicit tacit knowledge and subjective understandings and interpretations” from multiple sources and viewpoints (Marshall & Rossman, 2011, p. 91) even while the context and environment may constantly be evolving — a typical scenario for higher education. The researcher serves as the instrument for data collection and analysis, placing themselves in the field to conduct observations, interviews, and analysis of documents and artifacts that give insight into the phenomenon chosen for study (Barrett, 2007). The qualitative research process is inductive, helping the researcher generate hypotheses through participants’ experiences and perceptions rather than deductively confirming theories or testing hypotheses quantitatively (Tenny et al., 2022). Several qualitative methodologies would meet these conditions and enable the collection of in-depth data sources (Creswell, 2012). For this line of research, I adopted a case study design primarily informed by semi-structured interviews with a purposeful sample of transfer coordinators and complimented with a document review of pertinent materials and observations of relevant events occurring during the duration of the study.

Case Study

Among several rich traditions of case study (Merriam, 1998; Stake, 1995; Yin, 2014), and given my constructivist leaning, I primarily rely on Merriam’s case study approaches. According to Merriam (1998), a case study is “an in-depth description and analysis of a bounded system... the single most defining characteristic of case study research lies in delimiting the object of the study, the case” (p. 40). This research design involves detailed, multifaceted, and contextualized analysis of a particular subject, examples of which are a person, a program, a group, or a specific policy for which the researcher can “fence in” what is to be studied

(Merriam, 1998). One way to examine the boundaries for a case study is to investigate how finite the data collection would be. If data collection cannot be exhaustive, in reality or in theory, the phenomenon cannot be bounded into a case. A case must have a defined space and time frame bounded by context or systems, observable and interpreted by the researcher who represents the multiple realities and viewpoints about what is happening (Miles et al., 2014; Stake, 1995). The boundaries of case studies help the researcher determine what conditions fall within the case study to help in deciding what information should be included and what data is out of bounds, creating limits around the phenomenon to be studied.

I identified a case study approach as the most appropriate research design for the aim of this study to better understand a “phenomenon of some sort occurring in a bounded context” (Miles & Huberman, 1994, p. 25). The first condition — the in-depth study of a single phenomenon such as a policy, program, or institution — is met through the focus of this research on transfer policies that apply to all public postsecondary institutions within a state. The second condition — the occurrence of a phenomenon with clearly identifiable boundaries — is achieved by “fencing in” (Merriam, 1998, p. 27) the case through the geographic boundaries of the state of Wisconsin. The case is further bounded by the finite number of institutional transfer coordinators I could interview, a requirement noted by Merriam (1998). Case study approach is highly relevant to policy implementation research, allowing for a depth of understanding about particular people, problems, or situations (Bailey, 1992; Patton, 2002). It also supports the constructivist approach, capturing multiple contexts of colleges and universities in Wisconsin and the perspectives of their staff on transfer policies.

Generally, case study approach is characterized by the researcher’s use of a combination of qualitative methodological approaches (van Thiel, 2007). Case studies are not constrained by

specific methods; instead, the phenomenon of interest drives the methodological approaches to the research. Therefore, scholars may use various approaches and data sources under the umbrella of case study research, with some techniques used more frequently than others. While the flexibility of the case study approach could lead to issues in making sense of the data, Merriam (1998) provides specific guidelines for case study procedures, which I followed for my study of transfer coordinators' perceptions of statewide policy in Wisconsin.

The specific case study design I employed — semi-structured interviews with participants as my primary source of data, in concert with document analysis and observation — helps to unpack a complex issue in the settings where the phenomenon takes place. It allowed me to pursue answers to my research questions by including multiple sources of evidence in combination with the lived experiences and perceptions of individuals. Merriam (1998) explains simultaneous data collection and analysis in case study research and Stake (1995) emphasizes the importance of data triangulation to “catch the complexity of a single case” (Stake, 1995). As such, I took a non-sequential approach to data collection and analysis that allowed me to continuously iterate and revise as I sifted through data, interpreted findings, and pursued an interactive and emergent process whereby I continued to use the units of information to build a multi-faceted narrative. Figure 1 shows a procedural diagram depicting the methodological approach for this study.

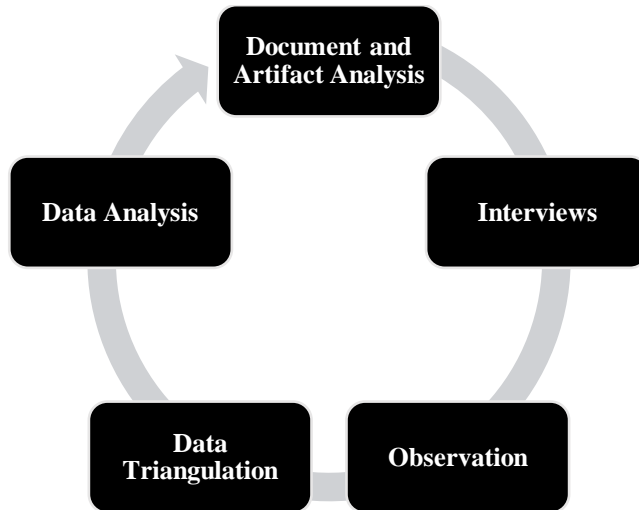


Figure 1

Iterative and Simultaneous Case Study Approach

The first phase began with the document and artifact analysis, as the genesis for the study is to understand the landscape of transfer policies that state- and system-level policymakers directed at the public institutions of higher education in Wisconsin. Findings from the first phase enabled me to develop the interview protocol with specific questions about the policies and programs identified through the document review. They also allowed for transfer coordinators to have the opportunity to elaborate on other directives or institutionally specific programming related to their work. Information revealed through interviews often led me to another phase of document and artifact analysis as new topics were broached and new resources presented. Based on the information from collected artifacts and responses to interview questions, I created an observation plan to discover how transfer coordinators collectively discussed these topics. Given the timeframe for scheduling multiple interviews, the timing of opportunities for observation, and the continuous revealing of new data sources, data collection and analysis occurred simultaneously and eventually converged through triangulation, in which data gathered

separately could be interwoven in the analysis. Considering the limited empirical research that exists about statewide transfer policies, the case study design allows me to contribute to the qualitative evidence on this topic while corroborating individual accounts with other forms of evidence.

Case Context

The setting for this study is the state of Wisconsin, which has two public systems of higher education. The Universities of Wisconsin (formerly the University of Wisconsin System, rebranded in October of 2023) consists of two Research I universities (Madison and Milwaukee) offering undergraduate degree programs in addition to doctoral and professional degrees; 11 comprehensive universities (Eau Claire, Green Bay, La Crosse, Oshkosh, Parkside, Platteville, River Falls, Stevens Point, Stout, Superior, and Whitewater) offering undergraduate and master's degree programs; 13 branch campuses (formerly the University of Wisconsin Colleges); and a statewide extension network with offices in every county. Figure 2 is a current map of the public four-year institutions and affiliated two-year branch campuses in Wisconsin.

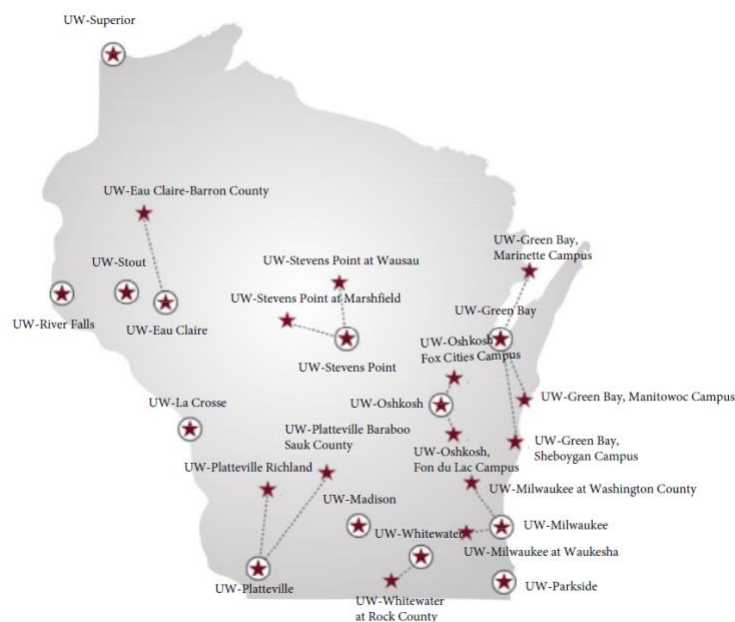


Figure 2

Map of the Universities of Wisconsin Institutions ¹

The Wisconsin Technical College System (WTCS) consists of 16 two-year technical colleges with the principal purpose of providing occupational education and training/retraining programs and customized training and technical assistance to business and industry at the sub-baccalaureate level, as defined by state statute. The additional purposes of the system are to provide courses to high school students through contracts with secondary schools, to offer a collegiate transfer program that articulates to baccalaureate degree programs of study, to make available community services and avocational or self-enrichment courses and basic skills education, and to support education and services to minorities, women, and disabled or disadvantaged individuals (Wisconsin Legislative Fiscal Bureau, 2023). Figure 3 is a current map

¹ Universities of Wisconsin, Map of Campuses, and author's rendition of branch campus locations

of the public technical college districts in Wisconsin. Each is responsible for providing a variety of educational programs and services through more than 500 programs.



Figure 3

*Map of the Wisconsin Technical College System Two-year Institutions*²

Postsecondary Education Organizational Information

Universities of Wisconsin (UW). Prior to 1971, four-year institutions of higher education in Wisconsin were organized into two separate systems. The UW consisted of campuses at Madison, Milwaukee, Green Bay, and Parkside plus 10 freshman-sophomore centers and UW-Extension. There also existed the Wisconsin State University System, normal (teaching) schools consisting of the Eau Claire, La Crosse, River Falls, Stout, Whitewater, Oshkosh, Platteville, Stevens Point, and Superior campuses plus four freshman-sophomore centers. With the passage of legislation to form a committee to study the merger in 1971, eventually, the two

² Wisconsin Technical College System, Map of College Campuses

university systems were combined into a single, consolidated organization in 1974 through the Legislature's establishment of Chapter 36 of Wisconsin state statutes as the legal foundation of the UW System, rebranded as the Universities of Wisconsin in 2023 (Wethal, 2023; Wisconsin Legislative Fiscal Bureau, 2003; Wisconsin State Legislature Chapter 36).

The freshman-sophomore centers became the UW Colleges, 13 two-year campuses typically located in geographically smaller localities with general education programs that would enable students to transfer to the four-year institutions within the system. Each UW Colleges campus had its own identity; however, they were not independent institutions. All 13 colleges were led by a single chancellor who also held responsibility for the statewide cooperative extension offices and public broadcasting (Schonfeld & Radecki, 2021). These two-year campuses experienced drastic enrollment declines and, in 2017, the president of the University of Wisconsin System proposed a restructuring of the system, focusing on the UW Colleges and the UW-Extension. Following the approval by the accreditor of the University of Wisconsin System, the Higher Learner Commission, the two-year UW campuses were merged with seven geographically proximate four-year universities (see Figure 2) and the cooperative extension and public broadcasting were merged with UW-Madison (University of Wisconsin System, n.d.b). This was the biggest reorganization in the history of the system since the 1974 consolidation of the University of Wisconsin and Wisconsin State University System (Myerhofer, 2018). Since the consolidation of the UW Colleges, classes have ended at three of the branch campuses: UW-Platteville Richland, UW-Milwaukee at Washington County, and UW-Oshkosh Fond du Lac due to rapidly declining enrollment and a system-level plan to realign the two-year UW campuses with "market realities" (Kremer, 2023). Table 1 displays the enrollment and completion data from academic year 2022-23 for the UW enrolling 90,672 full-time equivalent (FTE) students

and conferring 36,432 degrees at the associate's, bachelor's, and graduate/professional degree level (Universities of Wisconsin, n.d.a).

UW Campus	Total Undergraduate FTE Enrollment	Degrees Granted
UW-Eau Claire*	8,614	2,023
UW-Green Bay*	6,116	1,280
UW-La Crosse	8,768	1,983
UW-Madison	33,723	8,121
UW-Milwaukee*	15,959	3,408
UW-Oshkosh*	8,526	1,591
UW-Parkside	2,673	659
UW-Platteville*	5,601	1,241
UW-River Falls	4,200	1,039
UW-Stevens Point*	6,524	1,282
UW-Stout	5,369	1,380
UW-Superior	5,369	405
UW-Whitewater*	8,465	1,860
Total	116,309	26,272

**UWs that have branch campuses; numbers reflect those colleges*

Table 1

*Universities of Wisconsin 2022-2023 Enrollment and Graduation Data*³

Wisconsin Technical College System. The nation's first system of vocational, technical, and adult education was established in Wisconsin in 1911. The purpose of the system was to provide part-time educational opportunities for youth and adults who were not enrolled in either secondary or postsecondary schools. The original vocational systems were run by public school systems or by separate, citywide technical school districts. However, by 1965, a statewide system had been developed, consisting of two interacting components, the State Board of Vocational, Technical and Adult Education and local vocational college districts, which shared responsibility for the system. In 1994, the name of the system was changed to the Wisconsin Technical College

³ Author's analysis of Universities of Wisconsin data, Accountability Dashboard

System (WTCS) under the provisions of 1993 Act 399. The system is divided into 16 districts (see Figure 3), with main and satellite campuses across the state. In academic year 2022-23, the WTCS enrolled 60,011 full-time equivalent (FTE) students and granted 26,729 credentials across various academic programs. Table 2 shows the WTCS 2022-23 Enrollment and Graduation Data.

Technical College	Total FTE Enrollment	Credentials Granted
Blackhawk	1,794	881
Chippewa Valley	4,621	2,381
Fox Valley	5,947	2,864
Gateway	4,670	2,265
Lakeshore	1,538	665
Madison Area	7,822	3,166
Mid-State	1,969	928
Milwaukee Area	8,544	2,422
Moraine Park	2,398	1,109
Nicolet Area	793	374
Northcentral	3,307	1,564
Northeast Wisconsin	5,692	2,467
Northwood	1,941	1,772
Southwest Wisconsin	1,495	750
Waukesha County	3,589	1,975
Western	3,891	1,146
Total	60,011	26,729

Table 2

Wisconsin Technical College System 2022-23 Enrollment and Graduation Data⁴

Governance of the Systems

Across the United States, no two states have an identical structure for their higher education systems. Wisconsin is one of 19 states with multiple statewide governing or

⁴ Author's analysis of WTCS Fact Book: Student Data

coordinating boards and agencies (Education Commission of the States, 2020). The UW Board of Regents is responsible for establishing policies and rules for governing the system; planning to meet future state needs for collegiate education; setting admission standards and policies; reviewing and approving university budgets; and establishing the regulatory framework within which the individual units are allowed to operate with as great a degree of autonomy as possible (Universities of Wisconsin, n.d.a). The Board appoints the president of the university system and the chancellors of the 13 universities. The Board grants tenure appointments to faculty members. There are 18 members on the Board, 16 of whom are appointed by the Governor, subject to confirmation by the Senate. Of these 16 members, 14 serve staggered, seven-year terms. Two UW students are appointed for two-year terms; one of the two is a non-traditional student. The two ex officio members are the state Superintendent of Public Instruction and the President or a designee of the WTCS Board.

Governance of the WTCS is shared between the WTCS Board and the individual district boards. Each level has statutory responsibilities that are interconnected in many ways. The WTCS Board is the coordinating and oversight body for the 16 public, two-year technical colleges in the state. Among the primary responsibilities of the Board are planning and coordinating the system's programs and activities; system-wide tuition setting; program approval; facilities approval; state finance; state and federal government relations; and state and federal grant administration (Wisconsin Legislative Fiscal Bureau, 2003; WTCS, n.d.). The district boards are responsible for local planning, budgeting, curriculum and course development, and program implementation. Many district activities are performed in consultation with the WTCS Board or require Board approval to ensure consistency statewide. Because they operate as local units of government, technical colleges in Wisconsin are uniquely tied to the communities

they serve. The WTCS Board consists of 13 members: (a) an employer representative; (b) an employee representative; (c) one farmer representative; (d) the State Superintendent of Public Instruction or a designee; (e) the Secretary of Workforce Development, or a designee; (f) the President of the University of Wisconsin Board of Regents, or a designee from among the Regents; (g) six public members; and (h) one student. The Governor appoints the employer, employee, farmer, and public representatives for staggered, six-year terms. The Governor also appoints the student member for a two-year term. The WTCS Board hires the system office president (Wisconsin Legislative Fiscal Bureau, 2023).

Statewide Inter-institutional Transfer

From publicly available information, it is difficult to discern how many students have transferred between the two systems in Wisconsin. The UW operates under legislated accountability requirements requiring the Board of Regents and the Chancellor of the University of Wisconsin-Madison to submit an accountability report to the Governor and the Legislature (Universities of Wisconsin, 2023a). The report is required annually and is mandated to include information about performance, access and affordability, undergraduate education, graduate and professional education, faculty, economic development, and collaboration (Wisconsin Act 32, 2011). In 2015, the system launched a new website — the UW Accountability Dashboard — to provide digitized data about each of the accountability metrics for the 26 campuses, with the intent to make it openly available to students, faculty, regents, and policymakers (UW System Accountability Dashboard, n.d.; Wisconsin Act 55, 2015).

While information about transfer students is not specifically mandated, the UW System Administration reports on the dashboard topic, “How many new transfer students enroll?” Data ranges from academic year 2009-10 up to academic year 2022-23. Data suggests that, over the

past decade, the number of students transferring vertically from the WTCS to the UW has decreased by 1,043 students and that more students transfer from out-of-state colleges and universities than from in-state technical colleges or the former UW Colleges 2-year campuses. Table 3 demonstrates the number of new transfers to the UW from academic year 2012-13 to academic year 2022-23 by the types of institutions students transferred from (Universities of Wisconsin, n.d.). Through the Accountability Dashboard, transfer student data can also be disaggregated by race/ethnicity and fall enrollment.

Transfer From	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
International	396	379	309	357	285	361	358	271	170	285	352
Out-of-State	4,306	4,096	3,916	4,081	4,228	4,149	3,873	3,385	3,254	3,403	3,241
WI Private	990	871	901	910	793	741	672	610	626	556	523
WTCS	3,704	3,744	3,787	3,608	3,380	3,192	3,136	2,996	2,904	2,726	2,661
UW 4-Year	3,260	2,994	2,862	2,864	2,671	2,566	2,498				
UW Colleges (Historical)	2,564	2,376	2,329	2,226	2,144	1,958	1,842				
UW								3,875	2,874	2,820	2,466
Total New Transfers	15,220	14,460	14,104	14,046	13,501	12,967	12,379	11,137	9,828	9,790	9,243

Table 3

*Universities of Wisconsin Annual New Transfer Students 2012-2023*⁵

The WTCS does not publicly report on the number of students who transfer to a four-year institution. The annual Student Data Factbook demonstrates enrollments, credentials granted, graduates, dual credit, adult education, customized instruction and technical assistance, graduate

⁵ Author's analysis of Universities of Wisconsin data, Accountability Dashboard

outcomes, and apprenticeship completions (Wisconsin Technical College System, n.d.) The WTCS Credit Transfer Report provides information about course credits transferred into a WTCS institution, revealing that 12,787 students transferred credits to a WTCS college in academic year 2021-22. The majority of students, 41 percent, transferred credits from a UW institution; 18 percent of those transfer students had previously earned a bachelor's degree or higher. The report also denotes that 4,500 students completed a WTCS program in academic year 2020-21 and continued their education outside of a WTCS within one year. This data point could represent any number of pathways two-year students are known to move through as transfer students, but no information is available about vertical transfer from the technical colleges. There is also information about some of the significant statewide transfer reforms and initiatives in the report which summarize the expansion of the Associate of Arts and Associate of Science degrees to all 16 technical colleges in Wisconsin, Transferology, the Universal Credit Transfer Agreement, and the Course Credit Transfer Agreement between the WTCS and the Wisconsin Association of Independent Colleges and Universities.

Data from the National Student Clearinghouse Research Center reveals that Wisconsin's community college transfer outcomes are below the national average for every indicator measured in the *Tracking Transfer* reports (Velasco et al., 2024). The rate at which students who start at a community college and transfer to a public four-year institution, the rate that students who transfer to a four-year institution complete a certificate or associate degree prior to four-year institution enrollment, the rate in which transfer students earn a bachelor's degree from any four-year institution, and the rate transfer students earn a bachelor's degree, are lower than the mean of all 50 states. Additionally, transfer student outcomes at public four-year institutions in

Wisconsin, such as community college retention rate and the community college transfer bachelor's completion rate, are below the national average.

Structural Reorganization of Higher Education

Public institutions of higher education in Wisconsin have recently experienced major organizational transformations related to transfer. As a response to declining enrollments and reduced financial resources, the UW's Restructuring Project in 2017 involved merging the UW Colleges' 13 two-year campuses with seven of the UW's universities to become branch campuses of those institutions (Universities of Wisconsin, n.d.c; University of Wisconsin System, n.d.b). These colleges offered a liberal arts curriculum that was transfer-parallel to the UW universities and was designed to serve as a pathway for baccalaureate-intending students by providing the equivalent of the freshman and sophomore years of the degree curriculum. In 2023, the President of the Universities of Wisconsin announced that in-person instruction would cease at three of the UW branch campuses: UW-Platteville Richland, UW-Milwaukee at Washington County, and UW Oshkosh, Fond du Lac. The President directed the chancellors overseeing the remaining 10 two-year campuses to explore the long-term viability of the branch campuses stating:

It's time for us to realign our branch campuses to current market realities and prepare for the future. The status quo is not sustainable. This decision is a response to an evolving student marketplace. Offering students an educational experience they deserve while working with local leaders to ensure it meets their expectations is key to our long-term success (Universities of Wisconsin, October 17, 2023).

The President directed the chancellors to determine community needs and the ability of the UW to meet those needs and solidify a clear pathway for their two-year branch campuses by early spring of 2024, indicating more structural changes for the system.

In 2022, the UW Board of Regents approved the Associate of Arts (A.A.) and Associate of Science (A.S.) two-year degrees at all WTCS institutions (University of Wisconsin Board of Regents, 2022, April 8). Three technical colleges (Madison Area Technical College, Milwaukee Area Technical College, and Nicolet Area Technical College) already had long-standing authority to offer these “collegiate transfer” degrees (Wisconsin Legislative Fiscal Bureau, 2023). In recent years, the remaining WTCS institutions sought permission from the WTCS Board and the UW System Administration to add these transfer degrees to their program array, as required by state statute (Wis. Stat. §36.31) and the UW Board of Regents (Universities of Wisconsin, 2021).

Sites Selection

Drawing on a case study approach (Merriam, 1998), this study was bound by the geographical state of Wisconsin with 29 embedded units, the 16 public two-year Wisconsin technical colleges, and the 13 four-year UW institutions. As an in-depth empirical inquiry about a contemporary phenomenon set within its real-world context, case study research has proven to be a valuable tool for investigating and improving educational and social practice and policy. As such, I selected this research design to illuminate how statewide transfer laws and policies (the phenomenon) impact all public institutions of higher education within a single state. By looking across distinct institutions for similarities and differences, not only by sector but by other characteristics like programmatic focus and geographic proximity of institutions, the study provides a more compelling and robust understanding of the perceptions of transfer professionals about the same phenomenon in different contexts (Creswell, 2012).

As previously detailed, I chose to study transfer among public higher education institutions in Wisconsin for several reasons related to enrollment trends, organizational

structure, and transfer policy changes. The 29 colleges and universities across the state enrolled a combined total of 434,985 students in the academic year 2022 (University of Wisconsin System, n.d.a; Wisconsin Technical College System, n.d.), but enrollments have been declining across both systems for the past several years. Simultaneously, the number of Wisconsin students vertically transferring is declining, prior to and during the COVID-19 pandemic, reflective of national trends. While most WTCS students who transfer ultimately enroll at a UW institution, that number almost matches the number of WTCS students who transfer out-of-state (Wisconsin Technical College System, 2020). Similarly, UW institutions enrolled slightly more out-of-state transfer students than WTCS transfer students in 2022 (University of Wisconsin System, n.d.a).

Data Collection

Sampling Strategy

When conducting case study research, Merriam (1998) indicates two sampling levels are necessary: selection of the case, then of participants within the case. My participant recruitment began with a purposeful sampling method from the 29 public postsecondary institutions in the state of Wisconsin. This method is ideal for identifying and selecting individuals who are knowledgeable about, or have experience with, a phenomenon of interest and from which the most can be learned (Creswell & Plano Clark, 2007; Merriam, 1998; Patton, 2002). Hancock and Algozine (2017) deem the most important point to consider for interviews is identifying people in the research setting who can best address the research questions of the study. To this end, I focused on college transfer coordinators because they occupy a unique space at their institutions through engagement with multiple constituencies involved in the transfer process. They work to help students understand the transfer pathway and options for courses and credits to transfer; they work with faculty on the evaluation of credit equivalency; they usually have a connection to

both academic advising and student success offices; and their work may also fit into the enrollment management efforts of institutional leaders.

Initial identification and contact occurred by accessing the statewide directory of transfer professionals maintained on the *Transfer Wisconsin* website (Universities of Wisconsin, n.d.d). I used email addresses to contact these individuals to request interviews. If the information was out of date or the person listed did not feel they were the appropriate individual to participate in this research, I turned to snowball sampling as a strategy to identify other participants who work in transfer within that same institution. Snowball sampling helped me identify other participants who understood what cases would be reliable sources of information (Marshall & Rossman, 2011). I also used the public directories of individual institutions to identify participants to help me locate a contact. I drafted an email to recruit interview participants with information about the study. The message clearly described:

- The purpose of the research.
- How the individual was identified as an institutional transfer agent.
- The modality of the interview (in-person or by Zoom) to be selected by the participant for the ease of fitting an interview into their schedule.
- The time requirement of the interview: between 60 to 90 minutes.
- Compensation for the interview.
- Anonymity of identity.
- Request for the individual to provide an alternate contact, if there is another staff member better suited for the interview.

- Scheduling options based on my availability so the participant could select an available time that worked for their schedule; a calendar invite was sent when a participant selected a date and time.

Ultimately, I was successful in recruiting 17 participants representing 17 public two- and four-year institutions across the state of Wisconsin. Table 4 provides details about the interviewees, including their pseudonyms; their official title and the functional area where they work within their organization; the amount of time they have been in their role; and whether or not they self-disclosed their identity as a former transfer student. I interviewed five representatives from the Universities of Wisconsin and 12 representatives from the WTCS. Perhaps because of my previous role at the WTCS system office, the transfer coordinators at the technical colleges responded more favorably to my request for interviews.

Participant Alias	Title	Institution Type	Institutional Unit	Time in Current Role (at time of interview)	Indicated Lived Experience as a Transfer Student	Perceived Race	Perceived Gender	Interview Modality
Laurel	Transfer Engagement Manager	Four-year	Student Affairs	7 years	Yes	White	Female	In-person
Ryan Crowser	Assistant Director	Four-year	Admissions	3 years		White	Male	Virtual
CB	Pathways Coordinator	Two-year	Academic Affairs	10 years	Yes	White	Female	In-person
Doug Jones	Credit for Prior Learning, Career Pathways, and University Articulations Coordinator	Two-year	Academic Affairs	14 months		White	Male	Virtual
Esme Guitierrez	Director of High School Relations and Transfer Articulation	Two-year	Community Education	5 months		Hispanic/Latinx	Female	Virtual
Dr. Sally Transfers	Functional Analyst Credit for Prior Learning	Two-year	Admissions	15 years		White	Female	Virtual

Freya Gilmore	Transfer and Study Abroad Coordinator	Two-year	Academics	21 years		White	Female	Virtual
Fritz	Transfer Counselor	Four-year	Admissions	2 months	Yes	White	Male	Virtual
Joe	Transfer Specialist and Student Success Advisor	Two-year	Student Services	15 years		Asian	Male	Virtual
Kate Prescott	Curriculum and Articulation Manager	Two-year	Academic Affairs	4 years		White	Female	Virtual
Lauren	Transfer Coordinator	Two-year	Student Services	4 months		White	Female	Virtual
Max	Credit for Prior Learning Specialist	Two-year	Registrar	7 years	Yes	White	Male	Virtual
Stephen	Assistant Registrar	Four-year	Registrar	5 years		White	Male	In-person
Patricia	Transfer Credit Specialist	Two-year	Registrar	5 years		White	Female	Virtual
Qui Zhang	Registrar and Student Conduct Officer	Two-year	Student Success	2 years		Asian	Female	Virtual

Rick Danger	Associate Director of Transfer Admissions	Four-year	Student Affairs	2 months		White	Male	Virtual
Therese	Transfer Coordinator	Two-year	Student Services	1 year		White	Female	In-person

Table 4***Institutional Participants***

Interviews

Most case studies employ qualitative methods and are characterized by methodological pluralism (Merriam, 1998). My primary evidence came from the 17 individuals who participated in semi-structured interviews, in concert with document analysis and observation, which is customary in case study research (Marshall & Rossman, 2011; Stake, 1995). Qualitative research can be enlightening with a relatively small number of informants. Tracy (2013) suggests five to eight interviews can have a pedagogical value in qualitative studies. Guest et al. (2006) argue that in some cases, saturation may be reached with as few as a dozen interviews. Brinkman and Kvale (2015) assert that the number of interviews in “common interview studies” is in the range of 15 +/- 10. The number of individuals interviewed for this study, 17, was in the Brinkman and Kvale range.

According to Patton (2002), “multiple sources of information are sought and used because no single source of information can be trusted to provide a comprehensive perspective” (p. 244). Through a constructivist epistemology, I collected data through multiple qualitative methods to support my understanding of how college transfer coordinators in Wisconsin generate knowledge and meaning from their experiences with system- and state-level transfer and articulation policies. Data collection was further informed through my interaction with the participants and my thinking and processing of the data (Kivunja & Kuyini, 2017).

Interviews are the most frequently used qualitative data-gathering technique and are often associated with case study (Merriam, 1998). Depending on the subject, researchers can conduct in-depth, face-to-face interviews with participants, allowing for the collection of insights from the participants to best understand their experience from their perspectives, while the researcher

attempts to group multiple responses to questions or understandings across the participant population to identify frequencies that will ultimately become themes in the research.

In designing this study, I determined the primary source of data would be interviews, which are appropriate when there is interest in both the emic (insider's) and the etic (outsider's) perspectives to help researchers understand and analyze the local realities of participants (Murchison, 2010; Schensul & LeCompte, 2013). Interviews provided the opportunity to follow up on emergent issues and explore answers for better clarity and understanding. Participants can share information they want the researcher to know about the topic, while the researcher can also design questions that elicit specific knowledge.

All 17 interviews were conducted between August and October of 2023. My participant interviews were standardized and open-ended and lasted between 45–90 minutes on average. They were conducted both in-person and virtually, depending on the modality preference of the participant. Most interviewees selected the virtual format through Zoom. Standardized interviews are often used in multisite case studies or with larger sample sizes (Marshall & Rossman, 2011) and follow a pattern of scripted questions in a sequence, sometimes without follow-up. Through this research, I aimed to make cross-site comparisons of the interview data, but answering my research questions also depended on gaining insights from the individual experiences of each transfer advisor as they apply to policy.

After discussing the initial questions from an interview guide, I included prompts and questions designed for open-ended dialogue. With permission from participants, all interviews were audio-recorded; in-person interviews were recorded with a digital recording device and virtual interviews were recorded using Otter.ai, a speech to text transcription application that generates written transcriptions of dialogue and is compatible with the Zoom platform. Otter.ai

also transcribed the in-person digitally recorded files. The average transcription accuracy rate of Otter.ai is around 83 percent, which required review and revising of the transcripts where necessary. This was completed by reviewing the text and comparing the transcription to the audio file to improve clarity of the interview content. Per my approved Institutional Review Board application, I securely stored data according to UW-Madison policy. Audio files were stored in a restricted access folder and used only for transcription purposes. They were permanently destroyed as soon as transcription and text editing were complete. Names and identifiable information revealed during the recordings were redacted from the transcription. The interview protocol is included in Appendix A.

Document Analysis

Document analysis is often chosen as a secondary method of collecting qualitative data in case studies to add rigor to a research study. Cardno (2018) notes that it is common to review studies employing qualitative methods with an interpretative epistemology, such as interviews or participant observation, while concurrently employing documentary evidence as an additional source of data when appropriate to the study design. Researchers can gather useful data from print documents as well as electronic records and use them to supplement other qualitative methods for collecting data. Documents serve several essential functions in data collection for case study research. For example, they provide background information to establish the rationale for selecting a specific phenomenon to study. They may contain data to be collected and analyzed to develop a deeper understanding of the topic to be studied. For this case study, I conducted a document analysis to set the stage for the study, and objectively understand the policy environment in which my participants operate in, as well as to triangulate the information captured through interviews.

According to Lincoln and Guba (1985), “documents can be a rich source of information, contextually relevant and grounded in the contexts they represent” (p. 277). I engaged in two rounds of document review. The first round included an internet search for publicly available documents such as system-level transfer reports, system-level policies, UWS Board of Regents policies and resolutions, WTCS Board policies and resolutions, meeting minutes, transfer laws and legislation, and news articles written about transfer in Wisconsin. These resources helped to construct a historical context of transfer in Wisconsin and helped answer my research question about the state and system policies directed toward public institutions of higher education.

In the second round, I used the documents to “corroborate and augment evidence from other sources” (Yin, 2014, p. 107). This entailed revisiting the initial documents following interviews in which the documents are mentioned. I also used the documents post-interview to corroborate information obtained through the interview or to examine a topic in more depth if the information was contradictory. As an additional strategy, in certain cases related to a conversation during the interview, I requested institutionally specific transfer documents directly from the interviewees to affirm the verbal information provided. Careful analysis was necessary to draw conclusions from the body of related documents in combination with the analysis of interview data. An inventory of the documents reviewed by source and count is presented in Table 5.

Source	Count
Government Agencies	16
National Intermediary/Membership Organizations	31
News Sources	5
Universities of Wisconsin	11
Wisconsin Technical College System	6
Total	69

Table 5

Transfer Policy and Program Documents by Source

Observation

Observation can be formal and informal and includes the “systematic noting and recording of events, behaviors, and artifacts in the social setting” (Marshall & Rossman, 2011, p. 139). It is relevant to all qualitative methods as, even with interviews, the researcher is immersed in a setting with participants, observing verbal responses, the environment, and complex interactions. Field notes are critical in recording analytical insights about the observed phenomena. I took advantage of my experience participating in and observing transfer coordinators in a group setting during the annual statewide transfer coordinator meetings, including representatives from the UW, the WTCS, Tribal Colleges, and the Wisconsin Associated Independent Colleges and Universities. See Appendix B for a Field Observation Protocol and Appendix C for an example of an agenda from the Annual Wisconsin Collaborative Transfer Meeting.

Triangulation

A major strength of case study data collection is the opportunity to use multiple sources of evidence (Yin, 2014). Collecting data through interviews and reviewing documents, websites, and other written artifacts allowed me to base findings and conclusions on several varied sources of evidence. Through a constructivist paradigm, it is important to acknowledge that the

documents to be reviewed are not without bias because they are developed for use by the people with the lived experience I was trying to understand. However, I acknowledge there are multiple realities, and using multiple data collection strategies is one way to better understand how these realities co-exist within the context of a state. My goal was to support the findings of this case study through multiple sources of evidence that have been triangulated to arrive at the same conclusion. See Appendix D for the entire Data Collection Plan.

Data Analysis

The process used to analyze transcripts from the 17 individual interviews conducted to uncover codes and themes is described in detail in this chapter. Analysis occurred concurrently with data collection. As such, there were three levels of analysis: (a) first cycle coding, (b) second cycle coding, and (c) triangulation. The first step in data analysis took place during and immediately following the interviews. I engaged in analytic memoing by taking reflective notes and adding thoughts to the margins of reviewed documents, noting potential themes and topics for further research and discussion. I also journaled my thoughts and interpretations during and immediately following interviews and took notes of possible major themes as well as topics for further research and questioning and appended my notes at each level of analysis.

Data analysis is an iterative process, requiring researchers to go “back and forth” between their raw data and interpretations (Patton, 2002). I listened to my interview recordings and reviewed the field notes and transcripts. I used First Cycle Coding for transcript reading suggested by Miles, Huberman, and Saldaña (2014) at the initial analysis stage to detect reoccurring patterns. From this emergent process, I developed a coding matrix in Microsoft Excel comprised of both deductive codes (mainly derived from the literature review and the theoretical frameworks) and inductive codes (derived from the data). I then attached them to my

raw data using a descriptive label or short phrase or description to help summarize and visualize the information (Miles et al., 2014). The matrix displayed my data in a table format, allowing me to organize a large quantity of data in a format I could use for reflection, verification, and analysis. One of the primary benefits of creating a matrix is that it allowed me to efficiently search through the codes I created and to condense the data into analyzable units.

The Second Cycle coding moved the analysis from previously described codes to larger concepts that emerged from this study and brought together themes identified in previous literature and through careful inductive analysis of all my source data. Boyatzis (1998) suggests using the underlying competencies and abilities of the researcher to transform raw qualitative data into themes. Through the review of the literature as well as my background experience with the topic of this dissertation, I have comprehensive knowledge of this area of research; however, I remained open and flexible in perceiving patterns in my data. I also needed to organize my observations and emergent themes into a usable system. Though the digital management of the data made the analysis process more efficient, I constantly re-engaged with the data and continued to read and learn more about the process of analysis. Stages of the process continued to enrich and inform each other as the research evolved. I examined data for both variation and consistency to explain the complexity of the issues transfer professionals experience in the intricate work of policy implementation. At the end of this process, I had an outline of major themes and sub-themes. I returned to the raw data to verify that the inductive and deductive codes were actually present in the information I collected.

Ethical Considerations

Risks to my participants was limited; however, I prioritized my responsibility to protect the identity of the interviewees and data throughout my study. Before undertaking this research, I

complied with the policy of University of Wisconsin-Madison to conduct human participant research by applying for review and approval to the Institutional Review Board (IRB) of the university. My proposal to the IRB included plans to obtain signed consent from participants, guaranteeing them confidentiality, so no information discussed during the interview that is disclosed outside of the study contains any identifying information in this final dissertation. I conveyed to participants that they had the power to stop the interview at any time, could refuse to answer individual questions, and had the opportunity to ask questions throughout the interview process. To keep the identities of study participants anonymous, I asked them to select a pseudonym that is reflected in all sources of data, including interview transcripts, field notes, and the final write-up of the research. I de-identified any information that might lead to identifying the participant, including institutional affiliation or other contextual evidence.

I stored my written field notes and digital recordings on a secure database at the University of Wisconsin-Madison. Physical evidence, such as signed consent forms, was locked in a secure file in my office. After I digitized all sources, I destroyed all hard copies in compliance with UW-Madison IRB policy. I digitally organized participant information in a table on a secure site. The table includes the following categories: Institution Number, Pseudonym, Official Title, Years in Current Role, Self-identification as a transfer student (Y/N), and Interview Date. There is a folder containing completed interview transcripts, a file where I keep an interview and observation log, and a sub-folder for related documents. For reference, I kept IRB records in this same secure file location. These actions helped maintain the anonymity of all sources of data.

Positionality

According to Foote and Bartell (2011), researchers bring positionality shaped through personal experiences to their work, which may influence their research, choice of processes, and interpretation of outcomes. Further, while the development of interpersonal relationships is a component of qualitative research, under a constructivist approach, I had an active role in the construction of meaning throughout this study (Kim, 2014). As such, it was essential for me to understand and acknowledge the power dynamic between me and participants and how this relationship may impact what information they share with me during interviews. I do not have the same experiences as my study participants, but I bring an in-depth understanding of the phenomenon being studied. Therefore, I needed to reflect on how my positionality and biases may impact my interpretation of the data, which I accomplished by providing some professional and personal context in connection to this research, acknowledging how my positionality as the researcher could impact the study, and how I approached my research and worked to mitigate bias and assumptions.

My interest in statewide transfer policy is shaped by my professional background and over 20 years in public service. This influences my worldview regarding higher education and often inspires the topics of education policy and practice I choose to research as a scholar. I have worked for the federal government and state governments, including state higher education agencies in New Mexico and Wisconsin. In New Mexico, the state Higher Education Department governs both public two- and four-year institutions as a complete system of 28 colleges and universities. I was uniquely positioned within the department as a staff member who oversaw functions related to student transitions, specifically the educational movement beginning with pre-kindergarten and ending with entrance into the workforce and the educational opportunities (or lack thereof) that occur along students' trajectories. In this role, I served as a member of the

Articulation and Transfer Council and the Dual Credit Council, deliberating on issues related to improving statewide transfer policy for college students. As previously discussed, Wisconsin has separate governing organizations for public four-year institutions and two-year technical colleges. I have worked for both agencies, and my job similarly focused on student transitions: for adult learners earning degrees through competency-based education and as the state director for transfer. I have also held roles at both two- and four-year institutions that are members of these systems. These experiences have provided me with a foundational understanding of statewide higher education policies and the different approaches states take to address similar issues of improving student transfer. I believe this experience has prepared me to understand transfer from several viewpoints.

My personal background is steeped in the belief that education is vital for our society. I come from a familial background of both formal and informal educators who created their own pathways to and through higher education. I am a multi-generational beneficiary of military-connected learners who earned the benefits of the GI Bill through service to the United States, which supported the college-going nature of my family. During my father's stateside deployment, my mother began her education at a California community college, which she attended for free under the state's Master Plan for Higher Education. Both of my parents, under a contemporary classification, were transfer students and went on to earn advanced degrees. I took classes at a community college during the summers of my undergraduate degree, a pattern I would later learn to be called a "summer swirler". I reflect on that experience and cannot recall how I had the knowledge to take courses I needed, pay lower tuition for those courses, and transfer them back to the university. It occurs to me that policies must have been in place to facilitate this educational trajectory, as many other students at my institution followed this

course-taking pattern. Despite going to a highly regarded public four-year institution, I did not receive strong advising services, nor did I seek out advisors to help me make academic decisions. I can relate to the experiences of students who are self-directed and self-advised or who seek out policies or other sources of information on which to base their decisions, resulting in both positive results and some negative consequences.

The most formative impact on my research is playing a part in several higher education reforms in Wisconsin, including the expansion of the Universal Credit Transfer Agreement, the operationalization of Transferology and TES, and the UW authorization for WTCS colleges to offer liberal arts transfer degrees. Additionally, I was responsible for programming related to the annual Wisconsin collaborative transfer coordinator meeting. I became acquainted with many of the transfer coordinators at the UW, WTCS, the Tribal Colleges, and the private non-profit institutions in Wisconsin. Because of these experiences, I understand the discrepancies between policy and practice and have done some preliminary data analysis through the production of an annual credit transfer report and conducting an informal survey of transfer coordinators and provosts in collaboration with the UW.

I share these perspectives and experiences because they have shaped my research questions and study design. Therefore, I approached this exploration with an open mind, noting that the higher education environment in Wisconsin is continuously evolving with regard to transfer. I cannot assume that being positioned in a state- or system-level office is the same experience that transfer coordinators have working at institutions, even though we were responsible for implementing the same policies. While I do not hold the same professional position now as I did when working for the WTCS, I took great care to remain aware of the potential dynamics my positionality brought up in relation to my participants. While some

interviewees associated me with my former position, a condition that may have caused some suspicion about my intentions for researching their experiences, I worked to establish trust by being clear through my invitations for interviews, building rapport with participants by disclosing my positionality at the beginning of interviews, and sharing my goal of contributing to the empirical evidence on this topic and improving outcomes for transfer students by including transfer coordinator voice in the dialogue. My positionality statement identified my personal and professional experiences that led me to this line of inquiry and transparently revealed the influence they could have on the context of the study. I reassured participants about the anonymity of the research. If I had already established a relationship with participants prior to this study, I tried to acknowledge my familiarity and minimize the potential interference with my interpretation of the findings. Being reflexive throughout the data collection, analysis, and writing processes was essential for me to identify and limit my biases and preconceptions about this topic. To support this practice, I kept a journal and made notes immediately following interviews, engaging in discussions with colleagues and mentors as necessary, and internally reflecting on the research project and my role as the research instrument.

Credibility and Trustworthiness

In addition to the ethical considerations and my positionality as previously described, I employed several techniques to establish credibility and trustworthiness. Using the case study approach to this research, I triangulated my findings with other sources of information and artifacts such as existing public datasets on student transfer outcomes, analysis of state transfer statutes and other policies influencing transfer in Wisconsin, reports from the UW and the WTCS, and institutional websites. These sources, combined with qualitative interviews, strengthened the validity and reliability of the findings, and seeded the potential for study

replication in other states. I used different interviewing techniques to verify my data, such as validating answers to open-ended questions during the interview and allowing open discussion through participants' questions. Post-interview, I sought respondent validation of my data analysis through structured member checks (Maxwell, 2013), emailing participants to substantiate themes that emerged during their interviews. Once data analysis was completed, I reviewed the results and my findings with my advisor, who worked with me throughout the entire study, contributing a high-level of expertise on the topic of transfer. I also engaged colleagues in the practice of peer debriefing to gather feedback from objective content experts who could challenge my assumptions throughout conversations about the research and in my data collection and analysis (Lincoln & Guba, 1985).

Limitations

Case study design is not without criticism. Yin (2014) notes a lack of trust in the credibility in researchers' procedures, citing the reason the approach does not protect against researcher bias. He suggests that a deficiency of rigor and procedure allows researchers to design a research plan but later discard the plan and redirect if difficulties are encountered. Some researchers may view case studies bound by a single state, like this case study, as lacking generalizability, a common criticism of qualitative research borrowed from comparisons to more quantitative approaches (Marshall & Rossman, 2011). Stake (1995) argues for case studies that are thoughtfully designed and carefully bounded with strong research questions, adequate data collection, and triangulation across multiple data sources to support rigorous research.

Additionally, Yin (2014) believes that statistical generalization is less relevant in case study research; case studies are not sampling units and typically include a small population to study, which cannot adequately represent a larger population. Stake (1995) extends this assertion and

notes that cases will be studied in depth and at length, and while “quantitative researchers regularly treat uniqueness of cases as ‘error’”, qualitative researchers treat the uniqueness of individual cases and contexts as important to understanding” (Stake, 1995, p. 39). I adhered to the research plan I developed and made the case that multiple studies of transfer and articulation policies in individual states are needed to inform the national higher education field, as states are often the laboratories of innovation that can lead to broader reforms.

Transfer and articulation are complex issues in higher education. Through this case study, I did not attempt to establish a causal relationship between policy implementation and students’ transfer outcomes, even though some quantitative data is included for context. At the same time, although trend data may indicate the potential impact of statewide transfer policy, experimental and quantitative analysis are not part of the larger research project. Case study approach is helpful for detailed description and analysis of a phenomenon; the goal of this study was not internal or external validity. I was not able to eliminate alternative explanations for my findings, nor was I able to make assertions about how to apply findings to other settings.

This study focuses on the implementation of transfer policies at a particular point in time, during which other conditions are not being held constant. That is to say, other higher education policy changes may have occurred simultaneously at the federal, state, and institutional levels that could affect the results. Additional external factors could be influencing collegiate transfer in Wisconsin. I acknowledge that historical events may influence the outcomes of this study and that I am not interested in understanding the pre- and post-policy effects in Wisconsin because I am interested in the knowledge to be gained through the perspectives of those who interact with statewide policies in their daily practice.

I also acknowledge the political and social context of public higher education in the state of Wisconsin and that my participants may experience challenges expressing their perspectives out of concerns about perceptions of how effective transfer policy is at the institutional level. State legislators are increasingly interested in reforms that hold institutions fiscally accountable for student outcomes. Both public postsecondary institutional systems are subject to a myriad of these pressures, including the restructuring of the UW and performance funding for WTCS. These conditions could have impacted the honesty in interviews conducted with participants if there was any fear of retribution.

There was more data collected in this study than could be analyzed, so I had to select the most pertinent data and set other data aside. Although I spent over 17 hours interviewing and interacting with transfer coordinators, relying on my reduced data and single interviews with each person could lead to distortions or misinformation. However, one assurance of reliability is based on my general knowledge of Wisconsin's higher education landscape and what I have learned through the literature review and my professional background working on statewide transfer policy. This background contributes to my ability to understand the themes and ideas participants communicated. I established myself as knowledgeable about the issues to acquire trust and establish a rapport with participants. I also worked through the methodological challenges of elite interviewing (Mikecz, 2012) whereby individuals who work for prestigious organizations, such as colleges and universities, may carefully guard their external image and the external image of their organization through the information they reveal during interviews.

Summary

This chapter outlined the research methodology I used to answer my research questions. I employed a case study design using qualitative data as my primary source. By further drawing on

historical documents, policies, and my lived experience working for both Wisconsin systems of higher education and their affiliated institutions, I focused on public postsecondary institutions in Wisconsin as a case. This allowed me to research the role of a specific environment in which two systems of higher education have historically served different educational purposes and how they are simultaneously experiencing evolving state- and system-level transfer reforms. The next chapter delineates the state- and system-level transfer policies in place for public institutions in Wisconsin and explores them further through the policy and practice perspectives of transfer coordinators working at these institutions.

Chapter IV: Findings

This chapter contains the case study findings that resulted from data collection and analysis. The findings are divided into two parts. *Part I* of the findings includes descriptive information about the Wisconsin postsecondary educational state, system, and institutional policies relevant to inter-institutional transfer, as revealed through the document analysis. This section is intended as an inventory of policies created by legislation or through the governing organizations of institutions across the state, laying the groundwork for the interviews with participants. *Part II* of the findings includes a discussion of the participants' understanding of, and experience with, Wisconsin's transfer and articulation policies and how they implement them in their daily professional practices, as revealed through the interviews. I conclude this chapter with further policy analyses and observations about the transfer coordinators' relationship with policy implementation.

Findings Part I: Understanding the Transfer Policy Landscape of Wisconsin

The aim of *Part I* of the findings is to describe and analyze transfer policies impacting Wisconsin's public institutions of higher education collectively. This section begins with a landscape analysis of the policies that will provide context for the subsequent interviews with transfer coordinators. State and system-level policies were cataloged through a document analysis of 69 sources of publicly available information (see Table 5). While document analysis was continuous throughout the research and interviews led to the examination of additional statutes, the initial phase of the study explored the first research question: (1) *What policies have state and system-level policymakers directed at Wisconsin's public institutions of higher education concerning college credit mobility and the inter-institutional transfer of students?*

Statewide policy is examined first as it is applicable across two-year and four-year institutions. Differences in system-level policies emerged, were noted, and further explained as contributing to the complexity of researching transfer policy in the context of a state with two distinct systems.

State-level Policy and Programming

For policy to be considered statewide, it must apply to all state-supported institutions, regardless of sector. Policymakers in Wisconsin use three main mechanisms to direct public institutions of higher education on college credit mobility and inter-institutional transfer of students through state laws: 1) the maintenance of a computer-based credit transfer system; 2) the Universal Credit Transfer Agreement; and 3) the requirement to award academic credit for military service. While there are two separate sections for Wisconsin state statutes for the UW (Chapter 36) and the WTCS (Chapter 38), these laws apply to both systems equally. The policies are written to voluntarily include the Wisconsin Association of Independent Colleges and Universities (the state's private non-profit institutions) and the Tribal Colleges (College of Menominee Nation and Lac Courte Oreilles Ojibwe University), but only the public systems must adhere to these statutes in state law.

Computer-based Credit Transfer System. In 1989, the Wisconsin Legislature passed a law mandating cooperation between the public systems of higher education. According to the most recent version of Wisconsin Statutes 36.11(3)(cm): The Board (of Regents) shall establish and maintain a computer-based credit transfer system that shall include, but not be limited to, the following:

1. All transfers of credit between institutions within the system
2. Program specific course requirements in the system
3. Technical college collegiate transfer program offerings
4. Other courses for which the transfer of credits is accepted

5. Core general education courses that are subject to the UCTA

The original law established the Transfer Information System (TIS), maintained by the UW System, and designed to help student transfer between all public, postsecondary institutions in Wisconsin. It was replaced nearly 30 years later when UW invested in new transfer technology tools from a company called CollegeSource — Transfer Evaluation System (TES) and Transferology. The purchase of the subscription met the statutory requirement to establish and maintain a computer-based transfer system between UW and WTCS, replacing the TIS; the subscription also includes Wisconsin's Tribal Colleges. While TES can be used by college personnel to research transfer credit, track course evaluations, and manage credit equivalencies, Transferology serves as the student account-based system allowing students to store a portfolio of completed courses and research how these courses will transfer prior to matriculation or while enrolled. The network of institutions with transfer equivalency information in TES and Transferology extends beyond the state of Wisconsin.

In 2020, representatives from both systems collaborated with a UW project management team and representatives from CollegeSource to transition current course equivalencies from TIS to the new software product. The UW Office of Policy Analysis and Research and the Office of Student Success, along with the WTCS Office of Instructional Services and Office of Student Success, engaged work teams from each of the UW universities and WTCS colleges as they participated in training on the new tool and reviewed the current course equivalency data in the system, beginning with the Universal Credit Transfer Agreement courses. As institutional personnel and faculty review additional courses, the equivalency information can be added to the computer-based application.

When charged with exploring a technical application for transfer students, UW System Administration selected a product compatible with student information systems in UW institutions, but not with all the student information systems in WTCS colleges. During the implementation of the product across both two- and four-year institutions, much more work needed to be done by WTCS institutions to achieve interoperability of the applications than was required by the UWs. Many of the transfer personnel at WTCS institutions must enter course equivalencies manually. Additionally, UW provided funding to each four-year institution to support additional training and professional development for transfer coordinators at the CollegeSource Annual Users conference; this offer was not extended to WTCS or Tribal College transfer coordinators (C. Navia, Transfer Technology Memo, July 12, 2019). Through UW's subscription, all Wisconsin public colleges and universities and Tribal institutions have access to ongoing technical support and regular virtual trainings, but UW is the administrator of contract and systems.

The Universal Credit Transfer Agreement (UCTA). The UCTA provides Wisconsin's students with a selection of courses that are transferable between all institutions and WTCS colleges. The courses typically satisfy general education or general degree requirements. The two systems cooperatively implemented the UCTA in 2014 as required by Wisconsin Statutes, §36.31(2m) (b)) and initially required the UW and WTCS to identify 30 general education course credits that were transferrable between all public postsecondary institutions in the state; the non-profit private institutions and Tribal Colleges could participate in the agreement but were not required to do so by law. Wisconsin legislators passed a law revision in 2019 to increase the number of core general education transferable credits to 72 by 2022. The statute defines core general education courses as "Courses generally required for an undergraduate degree that are

prerequisite or otherwise in addition to the courses required for an undergraduate degree in a specific course of study” (Wisconsin Statutes, § 36.31(2m) (a)(1)). Courses must be transferable and satisfy general education requirements at the receiving institution and transfer between each university and technical college and each tribally controlled college and private college that elects to participate in the agreement. See Appendix E for the table of UCTA course and credit equivalencies between UW institutions and WTCS institutions identified in 2021 to meet the requirements of the law to revise the agreement.

Academic Credit for Military Experience and Education. A state statute that was not originally included in the data collection plan, but emerged while interviewing several transfer coordinators, is a law requiring Wisconsin’s public institutions of higher education to accept all American Council on Education (ACE) credit recommendations included in a military-connected student’s official Joint Services Transcript. The Joint Services Transcript is a synchronized transcript presenting data for the United States Army, Marine Corps, Navy, and Coast Guard (ACE, n.d.). Institutions are expected to award academic credit to students in accordance with the recommendations developed by a higher education membership organization representing accredited degree-granting colleges and universities across the United States. By law, institutions must also accept all credits included in the Community College of the Air Force transcript and award academic credit to the student accordingly. The caveat to this statute is that a UW institution or WTCS college may decide not to award a military-connected student academic credit for each course for which the student, upon consultation with the institution’s or college campus’s staff, objects to the awarding of credit for that course (Wisconsin Statutes, § 36.31(4) and § 38.12(7)(b)). This is a credit mobility policy that is applicable only to public institutions to accept pre-determined credit equivalencies or evaluate

the military Joint Services Transcript to award academic credit to students for courses in their degree plan.

System-level Policy and Programs

Universities of Wisconsin. Wisconsin's four-year system operates under two types of system-level policies: UW System Administrative Policies (SYS) and UW Board of Regents Policies. Currently, *SYS 135: UW System Undergraduate Transfer Policy* delineates transfer credit principles as well as principles of accommodation for the transfer process to and among UW institutions. The policy contains several provisions, including the provision that a course designated as fulfilling a general education requirement at one UW institution will transfer as fulfilling a general education requirement at the receiving UW institution. Also, because the Universities of Wisconsin has delineated systemwide standards for the Associate Degree (*SYS 115: Associate Degree Standards*), the policy provides that transfer students who also hold a UW Associate Degree will have satisfied the general education requirements at the receiving UW institution. The policy was updated in 2021 to incorporate language guaranteeing transfer admission from the UW two-year branch campuses to any UW four-year institutions, providing that certain credit and grade point requirements have been met. The policy also incorporates language that accommodates the reverse transfer of credits to allow the retroactive award of the Associate Degree for transfer students within the UW, as well as for Credit for Prior Learning (CPL).

In addition to defining transfer between Universities of Wisconsin institutions, *SYS 135* also outlines transfer between WTCS institutions at UW institutions. The principles of accommodation incorporate the transfer of the WTCS liberal arts associate degrees programs, stating that they may meet minimum standards for an associate degree as established by the UW

administration and allow WTCS students to transfer into a UW institution with up to 72 credits earned at non-baccalaureate institutions. UW universities may accept additional credits toward the degree where appropriate. UW institutions must recognize the WTCS Associate in Arts (A.A.) or Associate in Science (A.S.) degree earned from a WTCS institution as fulfilling the general education or breadth requirements of the receiving institution, if they are aligned with the associate degrees awarded by UW institutions. Because of the variability between program curricula at the WTCS institutions due to the career technical education nature of most of the WTCS academic programs, and in combination with multiple unique degree programs at UW institutions, there are currently hundreds of articulation agreements between the two systems. As such, *SYS 140: UW System Guidelines for Articulation Agreements Between UW System and WTCS Districts* provides explicit guidelines to UW institutions for developing articulation agreements with the WTCS colleges. The guidelines relate to both general education courses as well as course credits earned through a WTCS applied associate degree program. In determining the transferability of the career technical education courses, UW institutions will take into account the quality and comparability of coursework on a course-by-course basis and evaluate it for its applicability to UW degree requirements. Where UW and WTCS program relationships are found to exist, transfer articulation agreements are encouraged.

UW SYS 135 also provides for institutional responsibilities regarding transfer information. While the policy has not been updated to reflect TES and Transferology as the statutorily mandated computer-based transfer system (still referring to TIS), UW institutions are directed to provide the necessary information and data to keep the system current and accurate. Any UW institution initiating curricular action is tasked with considering the effects of program development or modification on potential transfer students. UW institutional transfer information

should be explicitly stated on the institution's website and in other appropriate sources. UW institutions will work with system office administration annually to maintain the UCTA and transfer equivalency data maintained in TES and Transferology.

The UW Board of Regents policy 4-16 sets forth criteria for the UW Board approval for liberal arts and pre-professional transfer programs leading to the A.A. or A.S. degree offered by WTCS districts. This policy establishes principles and guidelines governing the development and expansion of liberal arts and pre-professional transfer programs offered by the WTCS District and coordinated with the UW System. Wisconsin Statutes §36.31 require that the WTCS Board, and the UW Board of Regents, approve the broadening of transfer programs in WTCS districts. According to the UW, the policy is intended to expand and enhance credit transfer and increase the opportunities for Wisconsin residents to earn a baccalaureate degree, while promoting the active coordination, collaborations, and efficient delivery of higher education programs in the state (Universities of Wisconsin, 2020).

Wisconsin Technical College System. The WTCS maintains a Board Policy Manual, but it does not include specific policies related to transfer. One closely related policy is WTCS Board Policy 323, *Credit for Prior Learning*, last revised in 2008. This policy recognizes that the 16 technical college districts must provide maximum recognition for work completed through nationally or regionally accredited postsecondary institutions or other education, training, or work experiences pertinent to the student's new educational programming and the technical college's graduation requirements, also known as Credit for Prior Learning (CPL). The policy sets minimum grade point averages; the treatment of articulated credits negotiated between high schools and technical colleges; allowance for the colleges to set time limits restricting the awarding of credit for CPL; and the authority to develop policies and procedures for

implementing the WTCS CPL policy as long as it is consistent with Board Policy 323 and procedures developed by the System Office. The WTCS intranet (meant to be an internal website for the System office and institutions, but accessible by the public) lists “Guiding Principles for Expanding Credit for Prior Learning Opportunities” although this “initiative” is not codified in any way (WTCS, n.d.b).

The WTCS also maintains the Education Services Manual (ESM) as an authoritative document and guide for WTCS policies, processes, and procedures related to education services. The main purpose of the ESM is to “provide consistent quality throughout the WTCS based on state statute and administrative rules, state board policy, educational research, college input, and the needs of the WTCS Board office” (WTCS Educational Services Manual, 2024). As the current law identifies the principal purposes of the WTCS to provide occupational education and training/retraining programs and customized training and technical assistance to business and industry, collegiate transfer is only a secondary responsibility (Wisconsin Legislative Fiscal Bureau, 2023). This is reflected in the limited ways in which transfer shows up throughout the document.

Chapter 5 of the ESM provides information related to the system alignment of general education courses offered by the WTCS to maximize transferability across the technical colleges. To be eligible for the Aligned General Education course list, courses must be of postsecondary rigor with the potential to transfer to a four-year institution of higher education and be designed to transfer between other technical colleges. At least four technical colleges must offer the course to their students and individual colleges can petition to have courses added to this list. Courses will have a common title and learning outcomes. If any of the courses are on the UCTA, and

many of them are the basis for the WTCS offerings, and they are revised by the system office, the UW transfer partners should be alerted to the changes at the annual transfer coordinator meeting.

Chapter 10 of the ESM expands upon the WTCS State Board Policy 323, Credit for Prior Learning (CPL). It includes information about six different types of CPL: postsecondary credits earned at WTCS colleges, experiential learning, postsecondary credits earned at non-WTCS colleges, high school credits, registered apprenticeship, and credit by exam. The procedures established by the WTCS system office direct colleges about minimum grade point averages, how CPL credits are transcribed and calculated into grade point averages, consistency in approaches across program areas within a college, and the exclusion of time limits unless a college has documented a specific programmatic reason for time limits on credits earned. The chapter further details that CPL can be awarded to students through a Prior Learning Assessment (PLA) recognized by a college.

Chapter 12 outlines the WTCS systemwide articulation documentation process to be used by the WTCS and partner institutions of higher education to allow collaborative agreements within a specific program area to be created. While program-to-program articulation agreements between colleges are maintained by individual institutions, systemwide agreements are available to all 16 WTCS colleges and a singular baccalaureate degree-granting partner. This can be accomplished in programs like the associate degree in Nursing where each technical college shares a curriculum and competencies recognized by the transfer partner. In this case, one of the WTCS institutions serves as the “originating college” for the agreement, which must be submitted to the WTCS system office, who will host the agreement. The responsibility for reviewing and updating the agreement rests with the originating college and the colleges participating in the systemwide articulation agreement must review and approve those changes.

Chapter 15 of the ESM outlines the A.A. and A.S. degree programs at the colleges and states their purpose “to prepare students to transfer to accredited bachelor-degree-granting institutions such as four-year colleges and universities” (WTCS ESM, 2024). They have a secondary purpose listed, which is “to provide students with preparation for advancement in the workplace through a rigorous academic program” (WTCS ESM, 2024). The manual provides information about the minimum credit count, the types of courses included in the degree program, and information that once the degrees are approved by both the WTCS Board and the UW Board of Regents, the curricula does not need to be submitted to the WTCS system office for approval, unlike occupational certificates and degrees. However, courses that make up the A.A. and A.S. degree need to be submitted individually for review and approval. Courses that should be considered for inclusion in the A.A. and A.S. degrees are general education courses included in the UCTA with the UW and in the Course Credit Transfer Agreement between WTCS and Wisconsin Association of Independent Colleges and Universities private institutions, WTCS systemwide general education courses, and other postsecondary courses that are explicitly accepted for transfer through an established articulation agreement or have demonstrated transferability via Transferology.

Related to transfer, the A.A. and A.S. degree programs are required to have a memorandum of understanding with a transfer institution that includes a formal articulation agreement outlining guaranteed transfer with junior standing at the receiving institution. The WTCS system office expects that these degree programs will be transferable to more than one institution. As is the case with all state board approved programs at WTCS colleges, the A.A. and A.S. degrees are required to maintain an active program advisory committee with representation from faculty and staff at the four-year transfer institutions, K-12 faculty and staff, employers and

employees, community members and students. Colleges must also create evaluation plans for these programs through the MOU process. Wisconsin Statutes §38.04(4)(c) limits “Collegiate transfer programs” (the A.A. and A.S. degrees) to 25 percent of the approved credit hours offered in any technical college district.

Summary

Overall, higher education in Wisconsin has accommodated several major policy changes over the past decade. While there are no formal system-level transfer task forces or groups that focus on increasing transfer between the two systems, the systems have come together when transfer is legislated, as evidenced by the laws requiring a computer-based system, the UCTA, and the awarding of academic credit for military experience and education. As determined through recent revisions of state statute, system policies and media records, transfer is a topic of priority for the policymakers of the state who appear interested in encouraging cooperation between the two systems so that students can start at one institution and transfer to the next seamlessly and with as many credits applying to their degree program as possible.

The establishment of a computer-based credit transfer system dating back to 1989 is very forward thinking for a state that has not prioritized inter-institutional transfer between its technical colleges and universities. The recognition by the Legislature that both UW and WTCS personnel and students needed a way to access current and accurate course equivalency information to help them with decisions about transfer laid the groundwork for the current TES and Transferology systems in effect for Wisconsin’s students today. Both iterations of the computer-based transfer system have been placed under the authority of the UW by the Legislature; the UW System Administration manages TIS and is the fiscal sponsor for Transferology and TES. Given the inherent power dynamics that exist between four-year

institutions and two-year institutions, assigning the responsibility of administering the state-mandated computer-based credit transfer system is not without its challenges. At the system level, UW has greater capabilities to capture transfer student data and analyze trends, while the WTCS system office does not have access to a subscription and must rely on institutional contacts of the UW system office for the information.

The UCTA is similar to other states' policies to establish a general education common core of course equivalencies, ensuring that course credits earned at any postsecondary institution (two- or four-year) are equivalent to each other through the transfer process. However, the language of the statute states the "identification" of general education course credits that were transferrable between all postsecondary institutions in the state. This language implies that course equivalencies were already established, but the two systems needed to identify them and put them in the agreement. The same concept applies to the increase of transferable credits to 72 in total. The process for identifying the current UCTA courses required very little collaboration between institutions. Rather, the two system offices were able to create a course list out of TES, which identified course equivalencies most frequently used by students transferring between UW and WTCS institutions. While some negotiation was necessary, the policy does not meet the true intent of a statewide common general education pattern that is portable anywhere in the state, even though it often receives recognition in the research as being a transferable core of lower-division courses (ECS, 2022).

Upon further inspection of the UCTA course list (Appendix E), there are several conditions placed on the courses by the UW for transfer. For example, a reference is made to the *UW SYS 135 Undergraduate Transfer Policy*, which is mainly focused on principles of accommodation for the transfer process among UW institutions, primarily addressing transfer

between the UW two-year branch campuses and the UW four-year universities. While it was later amended to include the WTCS, the language is less prescriptive using the word “may” which in policy language is generally used to imply some degree of discretion instead of “shall” that indicates something is mandatory.

The UCTA is not truly universal; for a course subject set to be included within the UCTA, only 50 percent of WTCS districts must offer the general education course and only 50 percent of UW institutions must offer an equitable course within the subject set. Therefore, not all institutions will offer the identified courses, limiting students’ opportunities to transfer courses for credit. Because of the WTCS systemwide general education courses, all of the technical college courses on the list transfer horizontally across the technical colleges. According to the policy, the courses represented in the course list may satisfy degree requirements differently for a student depending on the course requirements related to the major that the student declares, and the structure of the academic program at the UW institution. Some professional majors and curricular pathways require students to complete a specific set of general education courses and courses may transfer as elective credits rather than apply as the equivalent course on the UCTA. The transferring of the course, even for elective credit, technically meets the intent of the law; there is nothing in the statute that requires the applicability of the course to the baccalaureate degree program and UW officials have argued that electives are still part of the degree programs. Furthermore, the UCTA represents only some of the articulated credit equivalencies available to students. Given that a majority of technical college students in Wisconsin are enrolled in applied associate degree programs or other certificate programs, this agreement prioritizes the transfer of the A.A. and A.S. degrees.

Lastly, there is a disclaimer to institutional personnel and students that the UCTA is not intended to be a stand-alone advising document. The agreement directs users to Transferology to consult for any updates that may have been made to the UCTA publication, since the review cycle occurs every two years. Aside from meeting the statutory requirements to maintain the agreement and the list, the static nature of the agreement underscores the difficulty in keeping transfer equivalencies updated and accurate by the UW and WTCS for their institutions and students.

Statutory language about the awarding of academic credit for military service and education is ambiguous. While the law establishes that all UW institutions and WTCS districts accept all the ACE military credit recommendations, many faculty and staff across the state of Wisconsin are not familiar with the ACE guidelines or how they arrived at their credit equivalency conclusions. The mandate for all public institutions in the state to award academic credit to the student in accordance with these recommendations runs counter to the directives set forth in UW's *SYS 135* and WTC's Board Policy for CPL, which leaves acceptance of different forms of Credit for Prior Learning up to each institution as long as system policies are adhered to. The policy does provide the caveat that institutions are not required to award the credit if staff objects to the awarding of credit for that course. This clause seems to render the policy unnecessary as institutions were likely already awarding credits for military service and education where appropriate. In passing this law, the Wisconsin Legislature is signaling their consideration of service members and veterans as a population that will seek academic credit in recognition of their credits for prior learning or service. However, the Legislature did not fund this mandate by providing institutions with support for the tuition and fees that will be waived if institutions award students credits for learning that occurred elsewhere.

The UW and WTCS are legally separated in many ways. There are different chapters of state statute that apply to the work of each system, which is appropriate given the differences in their creation, financing structures, governing bodies, and the educational purposes they serve to the state. However, this separation leads to further division as each system develops their own policies, which occasionally take into consideration students from institutions outside of their system, but more frequently do not address the coordination of higher education across the state broadly. Significant policy gains toward transfer have been made, but the delineation between the UW universities providing “traditional” academic preparation of students and the WTCS and its career and technical education and workforce development mission remains evident in current transfer policies. The state Legislature continues to be the driving force behind transfer collaborations, which are not prescriptive and do not reach the level of coordination that some other state legislatures have mandated in their policies.

Voluntary collaboration seems to be gaining momentum as system leaders have championed the transfer function and student demands for transferability have pushed institutions to develop relationships that support credit mobility and inter-institution transfer of students. Enrollment declines across higher education also provide a compelling reason to make transfer more seamless to enroll more students in bachelor’s degree programs or to attract them to associate degree programs with transfer potential.

Findings Part II: Experience and Application of Policies by Transfer Coordinators

The purpose of this dissertation is to investigate the implementation of state-level transfer policies developed to support the transition of two-year college students to four-year institutions in the state of Wisconsin. In *Part I* of my findings, I provided detailed information about the public policy landscape of higher education in Wisconsin that state systems and public

postsecondary institutions must adhere to in relation to their transfer functions. In *Part II* of the case study, I build a deeper understanding of those findings by extracting common themes through interviews with transfer practitioners who implement the policies as part of their everyday job responsibilities. This phase of the study explored the second research question: (2) *In what ways do public college and university transfer coordinators experience and apply these policies in their work?*

Two primary themes materialized from the analysis of interview data with Wisconsin's transfer coordinators at the two-year and four-year institutions. The first major theme, *transfer coordinators negotiate complex relationships between institutional roles and external policy mandates*, encompasses the multitude of ways transfer coordinators experience transfer policies in relation to their multi-faceted and cross-functional positions within and between institutions. At the institutional level, decisions are made about the organizational structure and significance of transfer to the operation of a college or university. Therefore, every position at each institution is configured differently, with varying responsibilities related to the transfer process. Understanding how these professionals define and explain their roles is critical to identifying which transfer policies they implement and how they use their discretion to apply policy decisions in their day-to-day work. The second major theme from this analysis, *the discretion of transfer coordinators, acting as street-level bureaucrats, results in a range of institutional perceptions with policy implementation*, extends the first theme and highlights transfer coordinators' impressions of state and system level policies and how they engage with the policy implementation process for their institutions. The analysis presents several commonalities across the institutions and some notable differences.

Transcript Data	In-vivo and Descriptive Codes	Higher-level Code and Descriptions	Theme
<p>I'm really considered a student lifecycle, from start to finish. We'll say 'from application to graduation' because on the enrollment services side, those are the students coming in a lot of times, I'm working with them if they have previous college coursework. So going through the application process, I do some things with application process as well, even though I'm not directly tied to admissions. I do some waiving of, we have placement tests requirements here for applications, and so I will waive placement test requirements based on the previous degrees or specific courses that student may have completed at a previous college or university. So it's nice to work closely with registration bus since I'm doing that, and then I think the other just having a good understanding of how the processes work as well in the institution...I have some assistance from some other people and we work closely together, in terms of making sure that people fulfill their requirements.</p>	Primary Job Duties	Across institutions, transfer coordinators serve different purposes: Descriptions of their regular duties, what office they work in, and the level of importance of transfer to their institution	Transfer Coordinators Negotiate Complex Relationships Between Institutional Roles and External Policy Mandates
<p>A lot of folks [transfer coordinators] are going to be closer to admissions or in academic affairs because of advising. Also, some schools' orientation models are like just student life stuff, and some are just academics.</p>	Functional Area of Institution		
<p>I would say it [transfer] hasn't been institutionalized...it's been something along for the ride.</p>	Institutional Prioritization of Transfer		

<p>I rely very heavily on Transferology and TES. I use it on a daily basis. It's been a great tool. I know that our advisors use it as well. I don't know how much our students use them though. And I think the fact that they have to have an account might be stopping some of them even though it's free, you know, just another account they have to have. But I rely on it very heavily when building articulation agreements and working with the success coaches and high school counselors.</p>	<p>Technological tools for transfer</p>		
<p>It's [UCTA] a tool to use or to guide or advise students. However, on the receiving end at the UW, they use it to their discretion, if it's going to meet program requirements, which is kind of odd. It's kind of discouraging you know when we advise students you can take this course it will directly transfer to the UW but then the UW says yeah we'll take it but it's not going to meet program requirements. That's very hard to hear.</p>	<p>The Universal Credit Transfer Agreement for general education course equivalency</p>		
<p>We've actually in terms of providing information to students, we really try and be as transparent as possible in terms of our guidelines and processes. And so we've created a credit for prior learning, whether it's transfer credit, the experience, the credit that we award for military experience, to our student veterans challenge exam. We do something here called advanced standing credit which is credit that we award based on a certification that a student might have completed elsewhere. It's a little different than credit experienced elsewhere, but it's related. So really, all those things, students can find information about all those categories on one page on the credit for prior learning website. And so I think that helps keep things centralized and then again, the contact point for them.</p>	<p>Military experience for academic credit</p>	<p>Across Wisconsin, transfer coordinators have been provided with policy guidance in various forms: Descriptions of their experience with Transferology, the UCTA, CPL, and System-level policies</p>	<p>The Discretion of Transfer Coordinators, Acting as Street-Level Bureaucrats, Results in a Range of Institutional Experiences and Perceptions with Policy Implementation</p>
<p>I think the systemwide MOU is something that we reference a lot and that's kind of the basis or foundation of a lot of our processes and guidelines that we've created. The MOU among [system institutions] came out about the same time that I started so that was where I think we did some things prior to that when we didn't have a lot of really formalized processes that we have written down. So as we developed and tried to expand some of our processes, that MOU was an important piece of it because we always wanted to make sure we aligned ourselves with that...it's something I'd love to see expanded as a two way street with [the other system] as well. I know that's not happening right now. Because we always put the disclaimer in the information, well, if you get credit via challenge exam or via another alternative means of CPL, it may not be transferrable to another institution outside [the system] because we don't have an agreement with them.</p>	<p>System-level policies</p>		

Table 6

Qualitative Coding Examples from Transfer Coordinator Interviews

Theme 1: Transfer Coordinators Negotiate Complex Relationships Between Institutional Roles and External Policy Mandates

Interviews with Wisconsin's transfer coordinators illustrated their specific roles within their institutions. Their responsibilities are multi-faceted and require a high degree of understanding about how external state and system transfer policies impact their individual positions. The list of participants in Table 4 illustrates the various titles and functional areas of an institution where these individuals are housed on their campuses. Not all these individuals explicitly hold the title of "transfer coordinator" even though they are the designee or one of several designees to perform this function for their institution. In this section, I identify three primary factors that influence how transfer coordinators interpret and implement policy. The first factor is their understanding of their primary roles and responsibilities at the institution. Each participant expressed having slightly different job duties that dictated the types of activities they were involved in. The second factor is their placement in a variety of departments within their institution. Depending on the functional area of the campus where their position sits organizationally, a specific set of activities was prescribed to transfer coordinators by their institutions. The third factor is the extent to which each institution prioritized transfer in their overall strategy. The variation in these three factors across the 17 participants emphasized that experiences with transfer policy are not uniform across public postsecondary institutions in the state. Some transfer coordinators might encounter all transfer policies in their day-to-day responsibilities, while others may have a more targeted focus and not as much experience with implementation

Policy Implementation through the Lens of Roles and Responsibilities

Transfer coordinators in Wisconsin reflected on their cross-functional work within the institutions. They possess knowledge about the transfer process from a variety of lenses: understanding discrete campus-level processes, navigating the needs of stakeholders both internally and across institutions, and working within the governance framework created through policy. Several participants shared the “application to graduation” nature of their positions, illustrating how they work to support transfer students through every phase of their academic journey “wearing multiple hats.” As Therese, a transfer coordinator at a two-year college, described the job:

It’s a pretty constant set of tasks and things that need to be done. It’s definitely the advising piece, the articulation agreements, the coordination piece, and I would say the other part of my position is, actually we are launching it officially: I oversaw the creation and our execution of our physical university center on campus. So, we actually have three university partners that are part of campus now that actually hold hours and meet students on campus with the intention that those are going to be the primary ones that will help with the transition into bachelor's degrees. So, we went through the entire vetting kind of application process with four-year institutions, and then we ended up with three that I really, I oversee and work with.

Other transfer coordinators provided examples of their everyday responsibilities, that like Therese, range from providing direct service to students, collaborating with other positions in their institution to create transfer pathways, and developing transfer agreements across institutions. The position can also be directed toward setting the transfer agenda for the institution. Thomas, a transfer coordinator at a four-year institution, is one of four staff on the university’s transfer team and is the supervisor. He explains his role as:

I’m the supervisor for the team, but I don’t I don’t do much of the day-to-day work. Right. I’m more looking at the big picture. I do transfer partnership work a lot. So, I’ve planned all the articulation agreements that we have to use, and obviously was involved in expansion of the UCTA....And then a lot of initiatives and projects that relate to transfer. I’m the one who gets pulled into meetings.

An outlier among transfer coordinators, Patricia described her role as “quite small” which is not an indication of the significance of her position or workload, but the fact that she serves one targeted purpose at her institution. Her everyday responsibilities consist of being in multiple databases to “get evaluations done for students, and send them off to students as well as advisors.” She is the only person at her institution responsible for this function which she shared is “doing the same thing over and over and over.”

Policy Implementation through the Lens of Functional Area of Campus

Transfer can be situated in a variety of functional areas within a college or university. A functional area can be a department or a division within the organizational structure of an institution. This dictates the roles and responsibilities of transfer coordinators and which transfer policies they engage with in their positions. It can also impact cross-institutional coordination of the transfer function or whether transfer coordinators work more independently on policy implementation. Laurel, a transfer coordinator at a four-year university described the relationship between the functional area and the role as:

It depends on where they [transfer coordinators] are housed. Like some people, they're in academic affairs. So, their role isn't to do student life stuff. They are doing seminar courses, or they're doing like faculty mentorship because that's what's in their wheelhouse. Some people are in admissions and registrars' offices. And, you know, it's also not in their wheelhouse to be doing events. They're doing more like receptions as in welcome or recruitment events. So, it depends on where you're actually housed.

Based on Laurel's interview and her interpretation of where transfer coordinators are situated and how that drives the work, I began asking every participant about where their role was located within their institutions' organizational structure. Among the 17 institutions represented in the study, there was mixture between academic affairs, student affairs, the office of the registrar, the admissions office, and community education.

Academic Affairs. Transfer advisors in academic affairs shared that they most frequently engage in transfer activities related to degree curriculum that makes up transfer agreements. This includes developing and maintaining articulation agreements like the UCTA and those outlined through the *UW SYS 140* and the WTCS ESM chapter on systemwide articulation agreements. If their campus has transfer guides for students or advisors, they are responsible for those as well. There is usually a relationship with advising also. Freya Gilmore, a transfer coordinator at a rural technical college describes her role within academic affairs:

So, I think our institution is pretty unique in this role where sometimes I meet with students, but a lot of my job is meeting with our advisors, which we call success coaches. And so, they're like the first point of contact for a student and working with a student that knows that they want to transfer. Then they come to the advisor, who would come to meet me, and I would build a personalized transfer guide for that student based on where they were transferring to...Another part of my role is working with universities and developing transfer agreements with them. So typically, I get requests that's based on student interest, or requests from deans and faculty saying that they're meeting with students who have an interest in pursuing accounting, whether it be accounting or business management at a particular school. And then I'll approach the school we don't already have an agreement with and begin that process.

The academic affairs side of transfer requires Freya to know about the applicability of course credit from the technical college to several universities, based on students' interests. Rather than have a direct relationship with students, she works with program advisors to serve the student through transfer guides that help them in the articulation planning process. She is also responsible for articulation partnerships between institutions. Building articulation agreements so students have information to navigate an education plan to begin their education at a two-year institution and ultimately transfer to a university for the purpose of obtaining a bachelor's degree. This kind of focus on the course and curricular part of an educational plan means Freya's role at the college is more "behind the scenes" as opposed to someone in student affairs.

Student Affairs and Services. Those transfer coordinators in student affairs and services are often responsible for the physical spaces on the campus dedicated to transfer, like transfer centers, and for services that give students direct access to transfer professionals on campus. Across Wisconsin's two- and four-year institutions, transfer centers serve slightly different functions. On a four-year campus, they may be physical space for transfer students to study and be in community with other transfer students and peer mentors. The main goal is to help transfer students acclimate to the university experience. One of the centers on a four-year campus hosts monthly lunches for identity groups like returning adults or international transfers. They have other programming such as welcome and holiday events, all related to access or resources for transfer students. At the two-year campuses, the focus is on making the connection for students to transfer partners. The physical space may be referred to as a "university center" or a "transfer hub" where students can connect with colleges through transfer events and learn about pursuing a bachelor's degree. Some of the technical colleges even host other Wisconsin universities at their centers so students have access to bachelor's degrees without needing to physically relocate. By centralizing student services in one location, students can remain on their campus and have access to information and resources designed to support their transfer process.

Office of the Registrar. Transfer coordinators in the registrar's office maintain student and course records, ensure that students meet program requirements for degree completion, and maintain academic records for the institution. It is through these offices that much of the course equivalency evaluation work like the data that goes into Transferology and TES is translated for students. Transfer coordinators in the registrar's office (in several instances, the Registrar at the institution served as the transfer coordinator) describe the functions of their office as reviewing external transcripts and evaluating them for students to transfer into their institutions. They also

create and administer the official policies and procedures related to awarding CPL, advanced standing dual credit with high school students, and military credits to transfer students. Thomas works in the registrar's office and describes his organizational structure as:

The registrar's office here is divided into academic services, student services, transfer services, records...[speaking about transfer being located in the Registrar's office] It does make sense to me, the way I look at it. I know it used to be in Admissions here. But I found there to be a little bit of conflict of interest. If it's in admissions: you're going to bring everything, you're going to recognize everything. You have an incentive to be more open. I mean, we all do, honestly. But it's a little more of a direct potential conflict if it's sitting in admissions. I feel like in the registrar's office, where it has a more strictly academic, or you could take a more academic focus to it. It makes a little more sense to me. Yeah. It does represent a challenge in that you now have this kind of removal from the front lines of recruiters, who may not be as involved or knowledgeable about transfer credit.

Admissions Office. While Thomas implied there may be a challenge with transfer being located in admissions, as the enrollment management side of institutions has a vested interest in enrolling students and being more lenient with the awarding of transfer credits, Ryan Crowser an assistant director, at a four-year institution shared insights about hosting transfer in the Office of Admissions:

My title is assistant director within the admissions office and then the transfer coordinator, kind of the identified transfer coordinator at both the system level and then on campus as well...I do a little bit of everything right, working with faculty, staff, and students. You know in this role that I'm currently in less with students, but certainly, you know, as problems or things rise to the top, you know, I'm working with those students who want to transfer credits that are evaluated for have been denied or those types of things. We have a processing team and we've got a dedicated transfer recruiter, so she's really kind of the front facing student person. We've got three processors who are doing all of the credit evaluation and kind of the, the stuff behind the scenes. We've got an articulation coordinator who works a lot with outreach with the different colleges or feeder institutions and then kind of how those courses, she does a lot with Transferology. So, she's very good at keeping that up to date. And then I just tried to keep the ship running right or going in the right direction, smoothing things out with the administration, working with the different Dean's trying to figure out where we're heading with different articulation agreements and those types of things.

Ryan Crowser's example is of a robust transfer staff in admissions where individuals each have a responsibility for the different elements of the transfer process.

Outside of the functional areas at institutions where transfer is typically associated, one transfer coordinator described their unique placements in a function that may be specific to her institution. Dr. Esme Gutierrez's role is in her two-year college's Community Education area of study. She described her work as primarily with "adults who would like to come back and get some kind of degree or training, as well as high school partners." Her major responsibilities are to manage all the relationships with their partner district high schools who have dual enrollment opportunities for their students or who are interested in creating more opportunities to help students transition to and from postsecondary education. Another function she oversees is the four-year transfer and articulation work, encouraging students to move into a four-year institution and then managing those partnerships.

Policy Implementation through the Lens of Institutional Prioritization of Transfer

Depending on how important transfer is perceived for a particular institution, transfer coordinators may have a more strategic role to play in policy implementation. Across the state, participants reported the significance of transfer at their institutions along a continuum from being something that "hasn't been institutionalized...it's been something along for the ride" compared with an area of "really high importance...there's a lot of value placed on transfer." Most participants expressed their support for seeing transfer elevated in Wisconsin with a more uniform voice. As the proliferation of policy from the first finding demonstrates and Dr. Esme Gutierrez concurs, "I think that transfer across the state is on everybody's agenda. It's in everybody's goals."

When asked to describe where transfer was on a scale of importance at their institution,

Dr. Sally Transfer who works at a technical college shares:

It's kind of a new focus for us. And I wouldn't say new focus that is, it's a reinvented focus. So, we looked at what our current process and policies were. And then we wanted to give more attention to dual credit or K12. And we want to bring in more into [name of institution] towards our programs and we want to do a better job of advising the options for those, not just our transfer in, our transfer out is also a key topic or key subject that we want to you to be aware of. But we want to do a better job of bringing them into [name of institution] to showcase the different pathways that they have.

What Dr. Sally Transfer is explaining is the historical way Wisconsin's technical colleges have treated transfer which is to separate the "transfer-in" functions from the "transfer-out" functions. This has translated into certain transfer coordinators overseeing functions related to the high school to college transition and CPL from other institutions or experiences like military service, but solely focused on students who were enrolling at the technical college and not the functions related to vertical transfer between the technical college and a four-year institution. To reference the aforementioned WTCS Credit Transfer Report, it only provides information about course credits transferred into a WTCS institution, but no information is available about vertical transfer from the technical colleges. Other transfer coordinators similarly expressed the emergent focus on transfer at their institutions. Kate Prescott, a transfer coordinator at another technical college, provided an example of where she would rate her institution's prioritization of transfer:

Maybe like a seven and saying, because it's important, it was in our strategic plan this last year, and we haven't redone our next strategic plan...But I would say it definitely is important. So right around there may be a little higher. But yes, so we've done that partnering with [4-year institution] with a seamless transfer event and have been working with them pretty heavily. We have a new staff member as well. It's through a grant so her position was last year and hopefully this year and hopefully it'll be full time...I think our college has, you know, high priority. Now, like I said, seven, maybe eight, but again, our mission still is getting students ready for employment. So, we still have a lot of focus on those types of things as we should as well.

The WTCS has a strong allegiance to its history as a system of postsecondary education that prepares students for employment. Career and technical education associate degrees, technical diplomas, are still the main focus of the two-year colleges' mission. As such, the transfer function may be growing in importance at some institutions but is still less significant to their overall mission.

Contrasting the notion that the two-year institutions have a strict focus on technical education, several transfer coordinators mentioned transfer as a strategic focus of their institution. Therese said:

It is actually one of our strategic initiatives. It was last year and again this year. Our president, basically we in [service] counties, which is the region that [institution name] oversees, we have one of the lowest bachelor attainment rates in the state of Wisconsin. And so with that kind of in mind, the college decided that part of our flexible education mission, part of what we do, really helping students in our local communities navigate the bachelor associate to bachelors pathway is something that we're assisting, having opportunities that we're actually bringing to campus and making that a part of who we are; really strengthening the connection that we have with [service county]. All of those are part of this process of we want to help get you to the right place for you. Let's look at what you've done, what your career goals are, if you're in a job right now, and let's really kind of help you navigate that.

Dr. Sally Transfer emphasized that transfer at her institution is, "Very important. It's one of the strategic directions that we have built, you know, in place through 2025" and Doug Jones who is also at a technical college, feels that transfer at his institution is, "Very high up...It's a big focus."

Among the participants in the study, none of the UW transfer coordinators mentioned transfer as a strategic priority of their institution. However, at the system level, the UW 2023-2028 strategic plan includes a strategy to "Advance Economic Prosperity" by "coordinating with the universities to support pilot innovative enrollment and transfer initiatives and create policy flexibility to facilitate innovation" by "increasing the number of transfer students from outside

the System from 7,000 to 10,000 per year” (Universities of Wisconsin, 2022). Of note, the Universities of Wisconsin system office also has a strategy to “increase access to higher education and improve rates of success for historically underserved students” through increased access for underserved populations, “including low-income, first generation, and underrepresented racial/ethnic minorities” but the focus is on high school students and new freshman as opposed to transfer students coming from two-year institutions that traditionally serve these populations of students nationally. The WTCS 2021-2025 Strategic Directions does not explicitly mention transfer under its directions or goals (Wisconsin Technical College System, 2021).

Theme 2: The Discretion of Transfer Coordinators, Acting as Street-level Bureaucrats, Results in Different Perceptions and Relationships with Policy Implementation

The second major theme from this analysis extends from the first theme, where transfer coordinators elaborated on their primary job responsibilities at their institution and how the organizational structure and emphasis placed on transfer dictates which parts of the transfer process they are engaged with. This theme further highlights the diversity of transfer coordinators’ decision-making authority and how they express mixed impressions with policy application of state- and system-level transfer policies. The policy environments where transfer coordinators work, whether that be the state context, the system context, or their institutional context were found to be an influence on the ways in which they apply policies. This led to certain beliefs about the efficacy of policies to improve transfer conditions across the state. In this section, I explain transfer coordinators’ reactions to each policy identified through the landscape scan, including the technology component of transfer, the UCTA, CPL and system-level policies directed at the UW and WTCS. While differences of opinion were expressed across all participants, as a whole, transfer coordinators displayed skepticism that policies (as

they are currently designed) are achieving the outcomes they are intended to achieve for transfer students.

Technology is Only One Tool in the Transfer Toolbox

Most transfer coordinators in this study viewed positively the requirement for the UW to maintain a computer-based credit transfer system, systematically tracking transfers of credit between the UW, WTCS, and Tribal Colleges, and emphasizing the core general education courses included in the UCTA. Many participants shared that they use the tool daily to serve multiple purposes and stakeholders. Therese shared her experience using Transferology (the student-facing tool) to assist in advising transfer students:

So, I'm in it almost daily. We actually can go in and see the number of times various people in our institution have accessed the system. I out number everyone, just because I'm in it so often. I work with students literally during their first onboarding session class. So almost like the first point of contact with the institution, especially students who I know are going to be transferring, [Transferology] is something that we all bring up together and we all work through examples, how to use it, what it means. So it's something that we engage with early on with students right from the start, because I feel like I always say it's this tool that will help kind of start creating your path...I would say, I actually prefer using Transferology even as a staff member from the student perspective just because I want to make sure, and even our team and students services want to make sure, that if they are working with a student in it, they are familiar with it know how to navigate, know what it means to a student. Yes, I will go in from the back end, too, but I think it's better for just everyone to be understanding from a student's field.

While the utility of Transferology is referenced in helping students build their vertical transfer pathway to a four-year institution, Patricia shares how TES supports her in doing her job in the registrar's office evaluating course equivalencies and transcripts:

TES to me is a wonderful tool. And without it, I couldn't do evals as quickly as I do them, seeing that there's only one person here, me, although there's other tools that if [institution name] got it, it might help to, you know, like, transcript readers and things like that, which you know, that would probably be a useful tool.

The state's computer-based tools for Transfer are also used to bring multiple stakeholders together at an institution to work through discrepancies in transfer information. According to Thomas:

I use it all the time so I can quickly refer to things. I don't know how much some of our partners use it, some more than others obviously. But, you know, I'll find that if I see an equivalency, and it's a little wonky or it doesn't quite make sense to me, I can go to Transferology and I can see how a course transfers somewhere else. And I can start to explore options. Like we had a philosophy course recently from [four-year institution]. It was transferring it in like really inconsistent ways between the main campus and the branch campuses. Compared to how we equate our branch and our main campus course, like nothing lined up. It was like a huge mess... So I was able to present all that sort of information to say, "Okay, this is what it is. This is obviously messed up. What should it be?" And then, bring the faculty and use their expertise to kind of clean it up and make sure everything was equivalent and consistent.

In discussing Transferology's utility for inter-institutional transfer work, Therese shared:

Because of Transferology, it allowed me to communicate with the four-year schools more often...I still communicate with them when I work with a student specifically to transfer. But sometimes I will reach out to the four-year rep just to see if there's a course that we have that they have something equivalent to.

The various ways transfer coordinators can use Transferology and TES were mentioned across all institution types and for a variety of purposes: helping students understand how college credits they earned can apply to a degree program and to help them decide where to enroll; assisting transfer coordinators in their responsibilities to evaluate and record course equivalencies; opening up communication between institutions to ensure the accuracy of information in the data systems; and continuing to build more information that will be useful to a variety of transfer stakeholders.

Transfer coordinators also raised some challenges with Transferology and TES in their own work and proficiency using the databases. One transfer coordinator called the tools "huge and overwhelming" and "not for the everyday user unless you really have a lot of time to get in

there and search around” and “difficult to keep updated.” Elaborating on the idea that it takes a lot of time to become familiar with the tools, Patricia shared:

Transferology, there's so many more areas that I could learn I you know, being one person I don't have the time to do trainings, but to go into it to the depth that it really could be probably an awesome tool. You can set up all types of, you know, transfer agreements, things in there, but you know, there's that time factor that that doesn't necessarily allow for me to be able to do that.

The state contract with CollegeSource supports public institutions and Tribal Colleges in Wisconsin receiving technical assistance for Transferology and TES. This can be in the form of regular webinars offered by CollegeSource staff or tailored trainings to the needs of transfer coordinators in the state. More of the technical assistance was provided to UW transfer coordinators when the tools were first implemented; the UW system office staff and individual transfer coordinators were given resources to attend the annual CollegeSource meeting. WTCS system office staff and transfer coordinators were not provided with these resources and have to rely on the UW system office to pass along information, since they serve as the fiscal sponsor of the statewide contract. The uneven opportunities in training on Transferology and TES have created some disparities in how transfer coordinators at the technical colleges become familiar with the databases. As Therese describes her experience using the tools:

It's all been pretty much trial and error and going in and playing around and using it. I've not had anyone outside of my institution kind of do any type of training regarding the tool. I would love that. I think there's probably some functionality that's there that I don't know exists. So, I would definitely be open to those opportunities if that was offered. I know one of the things that does come up sometimes especially across the UW system, different kinds of notations or various things are used. So, for example, now I kind of have a general idea if something is an elective in a category you know, and kind of understanding what notations I'm seeing, but it's not all standard across the board. So that's, it's sometimes a guessing game. So even though it's in there, what does that actually mean for the student? So, some training just even in terms of what potential coding is, if it pops up or what does this mean at this institution versus this one? Just some of the like, the key codes would be really, really helpful.

One technical college transfer coordinator, Freya Gilmore, received institutional support to attend the annual CollegeSource conference. She explained the benefit of that meeting and a positive outcome that was the result of her attendance:

CollegeSource does a meeting, a big seminar every year and I went. I went to it this year with one of our success coaches. And the best part about the meetings is just collaborating with other people in the room, with people from all over, schools all over the US. And we brought up a gentleman from [a UW institution], and he and I were working on searching by gen eds in Transferology, and we brought up the question that we would love to be able to search by gen ed requirements. Then somebody else from Boulder, CO said, "oh well, there's a workaround." So, then she worked with us and showed it to us, and it was great. And so now the [UW institution] person is going to all the UWs and saying, "this is how it can be done." And so now I just checked yesterday, and four schools are now able to provide us that information where we could search it on our own.

Max, a transfer coordinator at a technical college, believes state systems could play a stronger role in facilitating learning around Transferology and TES for their institutions:

"I'm not going to say the state does a poor job, but I think there's opportunities there. Just even sharing information in terms of what schools are doing with Transferology or what they have done with Transferology, or if they've changed things in Transferology. I had one institution that we were looking at, we were trying to develop some transfer equivalencies with them. And so, I was tasked with loading some of our coursework into Transferology and seeing how it came up on their own website. When we looked at that, nothing came up, but I couldn't figure out why. Well, it turned out they had their courses change the subject code for how they name them. And because they did that, then I had to go back and actually rebuild all of our transfer equivalencies because the course codes didn't match. It would have been helpful for the state to say, "Hey, this institution changed the course code now and it might impact your results in Transferology."

Since the adoption of Transferology and TES as Wisconsin's computer-based transfer tools, the use of the tools has been an agenda item for the annual transfer coordinators meeting. However, the discussion generally does not include technical aspects for the utilization of the tools. In an effort to address the lack of opportunities for some transfer coordinators to learn from other institutions' best practices using Transferology and TES, Dr. Sally Transfer proposed a Transferology Community of Practice at the Wisconsin annual Transfer Coordinator meeting.

The invitation was extended beyond the WTCS to the UW, Tribal College, and Wisconsin Association of Independent College and University transfer coordinators. The forum is conceptualized to be member driven, where individuals can propose topics for discussion, and open to other staff on campus who also use the tools. The meetings will begin in 2024 and will occur four times a year.

Attention to the lack of consistency between public postsecondary institutions in Wisconsin and the transfer information provided through the computer-based transfer system was given in several interviews with participants. Doug Jones praised the work of his institutional partners stating they were “absolutely excellent at keeping things updated. As soon as we have an articulation agreement signed on both ends, they’ve uploaded it to Transferology.” Some transfer coordinators have not found that level of receptivity to the information they have shared through the database. Kate Prescott explained:

I guess the only issue we ran into it's not so much an issue. It's just kind of a thing we noticed about one of the things early: we had heard in the tools that we can upload our agreements - articulation agreements - and then the other college can accept it, and then they'll be viewable on the site. And we thought “that's a great option.” And it's another spot for individuals to see the full transfer options. And we noticed as we uploaded all of ours, nobody else really accepted any. So, we ended up just taking them all off. But I noticed that was something and I didn't bring it forward because it's like, well, it's still fairly new. Maybe people aren't using it that way.

If transfer information is not uploaded in a timely and accurate manner, it can have a negative impact on the student experience of using it to make transfer decisions. Patricia noted that Transferology and TES are “only as good as the other school evaluating the courses. And if they’re not looking at our courses, or nobody is pushing them to look at our courses, then it doesn’t have a lot of value.”

A few transfer coordinators raised the topic about the frequency in which students are using Transferology. They expressed concerns that because students must sign up for a separate

but free account, it might be preventing them from using the tool. Doug Jones shared that he and his staff have done a little bit of playing around with it on their end to try and look at it from a student's perspective. He said, "I don't know how useful it is...navigation in Transferology, but it doesn't seem very apparent like how you can find courses."

Computer-based transfer tools are designed to provide students with the opportunity to independently explore how their courses will transfer in between institutions. For students who are self-reliant and independent and looking for a way to obtain information without having to interact with college staff, having information available through Transferology helps them to be able to serve themselves. Conversely, there are students who are more comfortable with the in-person interaction and the security that comes with a transfer coordinator verifying that courses will transfer to another institution. Dr. Esme Guitierrez explains:

I think it's the idea of trying to get students to embrace it...I do think some students use it, not as many as we'd like, and we've really tried to promote that a little bit. We have some information out on our website that explains how to use Transferology...One of the obstacles we face, I don't really know if it's an obstacle, but we offer a free initial transcript review to prospective students incoming...So what I'm finding is that probably students are more inclined to request an initial transcript review, rather than go out and use Transferology which is basically going to do the same thing for them. You know, it's more convenient. They don't have to load all their courses in there...I think Transferology has great potential. I think at this time it could be utilized more. But that's the challenge with anything new. It's a challenge of getting people to embrace it and understand that this is how things are going to operate.

Anecdotally, the usability of Transferology is viewed by some transfer coordinators as a challenge for students who must enter all of their coursework information into the system before they can find out if there are any courses that might transfer to another institution.

The UCTA is not a Traditional Statewide General Education Core Policy

The UCTA is a foundational statute requiring the UW and WTCS (and optionally including the Tribal Colleges and Wisconsin's independent colleges and universities) to identify

core general education courses that transfer between the institutions. As the main mechanism by the state Legislature to promote coordination between the two public systems using inter-institutional transfer as the driver, the resolution to issues students face with credit mobility between the technical colleges and the universities has been gradually increasing the number of general education courses identified. As previously described through the landscape scan of Wisconsin's transfer policies, the UCTA does not require all institutions to accept these general education courses for transfer credit. Only 50 percent of the UWs and 50 percent of the technical colleges have to do so, and the courses can transfer as elective credits and not count toward a degree program. The policy does little to address the commonly understood contemporary issues for transfer students, such as excess credit taking patterns making degrees more expensive or the collaborative curricular revisions that are necessary to ensure the articulation of an associate degree into a bachelor's degree. Transfer coordinators across the two systems expressed how the UCTA was foundational for statewide transfer efforts and forcing coordination between the two public system of higher education, but the issues that transfer students face have evolved along with the structural changes shaping higher education in Wisconsin.

A few examples of the ways in which transfer coordinators use the UCTA came up during the interviews. One way is that it takes some of the pressure off transfer coordinators as the UW and WTCS systems do the work to document the general education course equivalencies for campuses. Kate Prescott mentioned that:

It's nice when there's common courses where there can be systemwide work done with credit for prior learning or with the UCTA or similar types of things because it just takes that extra step out of the work we have to do at the local level. And it should be the same everywhere if it's the same course. So that is nice to have that consistency that's happening.

With the course equivalencies mapped out and agreed upon by the two systems, institutions can use the courses identified to provide resources to transfer students like transfer guides that serve as a binding agreement between the systems since the courses are in state law. As Doug Jones describes the UCTA, he shares:

It's been a really helpful tool to build those transfer guides and then from there to be able to refer back to it if there's a concern from one of our partners to say, "We don't want that to transfer in as this." We can take a look at it and say, "Look, we have this agreement. We have this policy right here where we can point to it and say it's supposed to transfer, and we've all agreed to that."

Relying on the UCTA is helpful for the behind the scenes work that transfer coordinators engage in to ensure that articulation agreements and their associated courses are aligned for associate and bachelor's degree programs, so students are on a pathway where earned course credits are maximized and applied between institutions. Transfer coordinators also shared how the UCTA, as a public document, can be shared with students to aid in their decision-making about what courses they should think about taking and where those courses will transfer. Therese, as a transfer coordinator who is responsible for advising students at a technical college, shared about the UCTA:

I will say it is used and it's really helpful especially when those first initial questions come out from families and students saying, "I already know I want to transfer to a UW institution. We're not ready, right? We want to be with you for a semester so like, what can I take here? That will transfer there?" So, it's my easy quick way to be like, "Well, this is a cool thing. There's already this pre-established list that you can see what class is, you know, at a Wisconsin technical college and where it will go to at the UW system." I call it kind of my, for lack of a better term, but like my slacker method, because it's all right there and I can easily pull up and we can talk about different four-year UW institutions all in one document. So, it's just a really easy reference guide in those initial discussions.

Rather than going into Transferology, where students would need to search for equivalencies on a course-by-course basis, the UCTA serves as a comprehensive list for them to be able to see how a variety of courses transfer to multiple institutions they are considering enrolling at after

they take courses at the two-year campus. It is useful for students like those that Therese references: students who might not have taken any courses yet, but need to make decisions about what they can enroll in at the technical college that will eventually apply to their bachelor's degrees.

Transfer coordinators also framed the UCTA as a tool that encourages collaboration within and between institutions. While not all members of a campus pay as close attention to the UCTA as those directly involved with transfer, when it does come up for review, it was mentioned as a nice reminder to the rest of the institution that the UCTA course are a tool to be utilized. Because of the potential for equivalencies to change over time, Doug Jones said:

So, when it comes to updates that we come across, it certainly opens up a discussion...it requires us to reach out to our partners and say we need to make an update. We are making it on our end. We want you to know about this.

This type of cross-institutional, cross-system collaboration, while not the main intention of the statute, is likely what state legislators try to encourage through laws like the UCTA where institutional actors must collectively make decisions about supporting students. Dr. Esme Gutierrez provides some perspective that statewide coordination is a goal of the law:

I think the UCTA is helpful. I think it's overall, it's helpful even just because it gives students and parents reassurance to know that the technical college system and the UW system as two entities are working together. So, I think that's really helpful. It's nice when you can have a conversation with students and say, "Hey, you know, you can go out and look at the transfer agreement out there. You know, that's something that we've developed that people are going to abide by." So that's a really, I think it's a great starting point for students and parents to start to develop some general information about what types of things are going to transfer.

As Dr. Gutierrez mentions in her statement, this idea of adherence to the law was mentioned by several transfer coordinators. General education course equivalencies existed prior to the law creating the UCTA and there are many more course equivalencies between UW and WTCS

institutions outside of those on the list but requiring them by law makes them official and transparent.

When discussing whether or not transfer coordinators felt the UCTA helped students in working toward the goal of transfer, several expressed that they did not think the law accomplished much beyond what campuses were already doing; it just solidified the information. Because the law directs institutions to “identify” a minimum of 72 credits that transfer between the WTCS and UW institutions, Thomas described the UCTA as:

My take on the UCTA is it's a little, a little bit of the tail wagging the dog. Because when, when the decision was made, expand it to 70 credits or whatever 72, almost everything that was chosen was chosen because it's a common sort of transfer type course, which we've already evaluated. So, it's just kind of filling in the blank, right? I mean, literally, that data was pulled from TES and it was like, right, everybody knows that these are like the most frequent equivalencies for sure.

This example reflects that the UCTA, while helpful as a source of information, did not require institutions to work together to improve transfer student outcomes in a meaningful way. Courses were identified in the database that meet the minimum threshold to be included on the list, and that list serves as the official documentation of the process to identify transferable courses. Additionally, the list only needs to be reviewed every two years during which time courses can be revised rendering equivalencies to become out of date. Dr. Gutierrez shared that her advice to students is:

The thing I'll tell students is, you know, you can look at that, but you're always going to want to follow up with that school that's going to be accepting those transfer credits just to verify that what they have out there is you know, up to date. I think that's one of the challenges when you have, you know, however many institutions we have in the state, all trying to provide information there. I think it's a constant challenge because things change every day.

CB had a more skeptical viewpoint about the UCTA, sharing that, "There's a piece of me that I feel like I need to learn and find value and trust in that list of 30ish courses. I'm trusting that

those will be solid, but something in me, I don't know.” The UCTA document (Appendix E) provides a disclaimer that it should not be used as a standalone document and that Transferology should be consulted for the most current information, as the UCTA only reflects information that was accurate at the time of publication.

When asked to share perspectives about the UCTA’s role in improving transfer for students in Wisconsin, Lauren shared a critical viewpoint:

What I can tell you is that, or what my opinion and my observations would be, is that it's probably was a really good starting point for forcing the conversation of transfer between all of the different institutions within the state, whether private or public. From the perspective of helping students complete, I don't think it's helping them accomplish that goal. I think that it is, what it can do if a student has 30 credits, that's great. A four-year institution will take them let's say specifically a UW system four-year public, but they may not apply to their intended major. So, if a student has, if they come in with 30 credits or 60 credits, they still may need upward of 80 or 90 to get a bachelor's degree. And in my opinion, that's not really helping anyone progress to attaining that credential, which is what my understanding of the you know, original goal and intent of the UCTA which was to have was to help students attain a credential and smooth out those wrinkles between institutions.

Ryan Crowser also shared that he feels the UCTA creates some confusion because there is this idea out there that everything transfers from the technical colleges. Even though all institutions in Wisconsin are achieving the 72 credits of general education courses directive of the UCTA, the law may be contributing to some unintended positive outcomes like lessening the burden on transfer coordinators to evaluate equivalencies and fostering better relationships between institutional actors. On its own, the identification of transferable general education courses in the UCTA is identified as smoothing the path for transfer students between two- and four-year institutions.

An External Legislated Push to Award CPL for Military Service

While not originally identified as a statewide policy related to transfer for this study, the law requiring public institutions of higher education to award academic credit for military

experience and education was mentioned by a few participants, so it was included for further examination. Additionally, the topic was included on the agenda for the annual statewide transfer coordinator meeting where system level representatives provided an update on the law. Similarly to the UCTA, colleges and universities were already identifying equivalencies between students' service accomplishments and academic coursework, where appropriate. Reflecting on the policy, Ryan Crowser shared:

So, the military credits we've been doing that for a long time. And I guess I still struggle a little bit with the legislation that was kind of snuck in that said that we have to take all of the credit for military. I don't think that's helpful for the student or institutionally, you know, all the way around. If a student comes in with 100 credits that aren't going to apply towards anything. I don't see the value in posting that. So, if they want to slap me down for not doing that, I'll have conversations with students about why things are coming in or why they're not, but I continue to just post the credits for military work that are going to apply towards degree completion. So, you know, if a student has three credits of gunsmithing, or some of those things that that aren't going to apply to any degree, I don't see the value in posting that. I think we have been known as a military friendly campus for as long as I've been on campus. So that's always been a strength of ours. We have you know, I've kind of worked with veterans in the admissions office, we have a veteran benefits coordinator in the registrar's office. And then usually within advising, there's a couple of folks who work with veterans too. So yeah, we try to work a lot with that and really look at those JSTs [joint service transcripts] and get as much credit as we can, but not post more than we should.

He further elaborated on his perception about how this issue was brought to the attention of the Legislature that acted to pass a law:

I guess, just going back to the point we just made with the military credits, you know, that's one of those instances where you have kind of noisy individuals going to the legislator, and then they push to get all of the military credits counted, which is maybe valid in their case, but not valid in a lot of other cases. Right. So, then you have this legislation that that kind of handcuffs us, but I guess. Yeah, again, I don't think it's good. If a JST comes in and has 100 credits of things that aren't going to apply to our campus, you know, and then you're going to run into things with both military benefits and if they're qualified for financial aid. What happens there, and some of those other things downstream that, that maybe aren't even considered, you know, from a transfer standpoint, but can have negative impacts on the student. So, don't think some of those things are considered, you know, at the legislative level or even at the Board of Regents level, kind of sometimes when they're, they're pushing policies down.

This recollection of how a state law was put into place because of individual students who advocated for their circumstance to a legislator has been echoed by other school officials in discussing other transfer policies as well. Legislators react to a constituent that may or may not represent the population as a whole and pass a law that may have unintended consequences that legislators may be unaware of.

Another concern expressed about the credits for military service is that all American Council on Education credits should be accepted. Thomas shared that can be up to 150 credits and in his conversations with service connected and veteran students, they discuss:

Will this transfer and the question they need to be asking is what is left? You know, what am I going to have to do next? It's not just the transfer, but also the transfer and the applicability of the course. Right? And so it can come in as an elective. Great, unless you're wanting that to actually count for calculus, right? There's the issue we have military credit. Yeah, yeah, we're mandated. Take it all in. You have 150 credits of military learning. None of it applies to a specific degree requirement. I would think that's important. If I could rewrite that legislation. I probably put a cap on it. There's absolutely no use in having more than 90.

This issue was further problematized by Qui Zhang who is responsible for her institution's military credit for prior learning function:

We do have some military students. However, one of the issues that we are seeing with military students is that we only transfer and course specific classes in their program. So depending on what their career was in the military, if it does not apply, or it doesn't, it's not applicable to what the program is at [institution name] and we don't transfer those credits. So I would say that the majority of military transcripts that I see are more for like our public safety or criminal justice students. Like all of their training, like physical training, we don't transfer those in at all. We may transfer in like a communications class that they took in the military for our oral communication. But we rarely ever transfer in any program classes.

The legislated process that intends to give students the maximum amount of credits exemplifies an issue transfer coordinators face as the street level bureaucrats responsible for policy implementation. As Dr. Esme Gutierrez describes this top-down approach by the state legislature:

That's when we are in danger of getting kind of forced bad things. The Legislature is saying "this is what you are going to do." And even though it's free, you know, from the boots on the ground standpoint you're saying, "Well, I don't know how that's really going to work." From theory to application, you know, sometimes things get lost.

The issue of applicability of credits toward a degree is mentioned throughout all the discussions about transfer policy. To solely identify how a course transfers to another institution can be useful in transparently providing students with information that can help them discover which credits they can bring with them. However, if the credits come over as elective credits and do not apply toward a degree requirement, the legislation to award academic credit for military service may in fact be contributing to an issue of students transferring with excess credits.

The Majority of Formal Transfer Policy Rests at the System Level

Wisconsin's state policies on transfer provide institutional coordinators with supportive technology, the recognition of general education credits that transfer, and guidance about military CPL. However, most of the policies that define procedures for how transfer coordinators should implement transfer happens through system-level guidance. As described in Part I of these findings, for the UW and the WTCS, the policies are detailed in governing board policies or policies issued by the system offices. Notably throughout the 17 interviews with participants, system-level policies did not receive as much attention as state-level policies. One transfer coordinator shared that, "there are not a whole lot of directions, system policies, that guide transfer."

I posit two reasons that could explain why system-level policies were not as prominent in the discussion. System-level policies, outside of a few minor revisions, have not evolved as prominently as state policies in Wisconsin in recent years. Therefore, they are engrained in the work transfer coordinators do to translate policies to their day-to-day job responsibilities. The Universities of Wisconsin formally refer to their transfer guidance as policies, either System

Administrative Policies or Board of Regents Policies. The WTCS does not put transfer-related guidance into board policy, with the exception of the credit for prior learning (CPL); the majority of WTCS policies are expressed in the Education Services Manual (ESM). The ESM represents system-level policies, but they are not officially identified as “policies” which may have omitted them from these discussions. When interviewees were asked to provide perspectives on system-level policies, three main areas of transfer were elevated: the UW System Undergraduate Transfer Policy, articulation agreements, and CPL.

The *UW SYS 135: UW System Undergraduate Transfer Policy* incorporates many elements, but the one policy that is widely understood to impact transfer between the technical colleges and the UWs is the principles of accommodation allowing WTCS students to transfer up to 72 credits to a UW from a non-baccalaureate institution. This is not a mandate and UW are not required to accept credits. They also have flexibility to accept additional credits toward the degree when appropriate. The flexibility of this policy is appreciated, but should be verified with a transfer coordinator at the four-year institution, as Joe (a transfer coordinator at a technical college) describes:

There’s the credit limit...sometimes they say it’s 72 but if you look deeper...I always tell students, “You know, once you get to the four-year school, and you transfer in 60 plus credits, for example, if you want to take another class with [institution name], always get permission from the school, to come back to [institution name] to take that class because by that time, you are getting close to you know, 72 credits to transfer already.” But there’s ways to get around it. As long as you believe the school is okay with it, you can take that additional class...They’re gonna check in if you’re gonna stick with the 72, they can say no, you’re already at the 72 or they can allow you to do that.

The principles of accommodation is also the policy where the WTCS liberal arts associate degree programs are discussed. Across this sample of transfer coordinators, the topic of the WTCS liberal arts Associate of Arts and Associate of Science degrees was mentioned more frequently by WTCS transfer coordinators. For the majority of the technical colleges, these degrees recently

received approval from both system boards and the transfer coordinators were working to launch and implement these programs and their requirements at their colleges. However, Ryan Crowser who is a transfer coordinator at a four-year institution provided an interesting example of how the UW policy shows up in his work:

You know [UW branch campus] is our branch campus, right? So we're connected with them. Obviously, they're in the same city. They're just across the road basically from [technical college]. So [technical college] has acknowledged that they don't have a lot of the humanities courses or social service courses that they need for their students actually to graduate with the Associate of Arts. So, they've made specific partnerships with [UW branch campus] and we've kind of built the application in a way so that students can apply to the [UW branch campus] and get some special privileges. Because we know they're at [technical college], so that we can go back and forth and get [technical college] the transcripts easier. So, they can get their degree. And then ultimately, hopefully, those students come to us but if not, you know, they still have their Associate of Arts, and they can take that wherever they want with their going into the career. So yeah, I think that also all of the techs now have started advisory committees for those associate degrees. So, I know I'm on the [technical college] Advisory Committee...I think that brings us together with those campuses.

With guidance from the UW policy, the transfer coordinator at this university is supporting the partner technical college in their alignment with the associate degrees awarded by UW institutions to meet the general education requirements of the UW system. There is no specification that it has to be carried out by the institution in a certain way, but Ryan Crowser has interpreted the policy to build a partnership between the UW branch campus and the WTCS college for the Associate of Arts degree while building a pipeline for transfer students to his university to pursue the bachelor's degree.

The Advisory Committee Ryan Crowser discusses for the WTCS Associate of Art program is a requirement of the WTCS system policy. Chapter 19 of the ESM provides guidelines that each WTCS must establish and maintain active program advisory committees for all State Board approved programs. The purpose of the advisory committees are to advise, assist, support, and advocate for specific programs and to provide insight on the knowledge, skills,

curriculum and program outcomes. This requirement is also in the WTCS Board Policy which reiterates the requirement for each program to have an active advisory committee for all approved programs. Traditionally, these advisory committees would be composed of employers in the district who help shape a technical college's program offerings because the college is responsible for educating and training their future employees. With the Associate of Arts and Associate of Science policy, the system office recognized that there should be multiple stakeholders involved in program development and maintenance. The policy states that representation should include faculty and staff from universities, colleges, the public school districts, employers and employees, community members and students. Having representation from the UWs on these advisory committees can help in aligning degree requirements and can help UW transfer coordinators gain a stronger understanding of those programs.

Both the UW and WTCS policies regarding the Associate of Arts and the Associate of Science degrees, now approved for all 16 technical college districts, played a major role in the procedural management for developing and approving the two degrees. Now that all programs are approved, the policies are likely to evolve beyond program implementation if they are to meet their original intent. According to the UW Board of Regents policy, the intended outcome of approving the liberal arts degrees at the WTCS is to expand and enhance credit transfer and increase opportunities for Wisconsin residents to earn a baccalaureate degree while promoting active coordination and collaboration of higher education programs within the state. These policies set the precedence for further system-to-system collaborations on transfer.

Another procedural policy that guides UW institutions in working with WTCS colleges is *SYS 140: UW System Guidelines for Articulation Agreements Between UW System and WTCS Districts*. The UW system office encourages articulation agreements where program

relationships between a UW and WTCS college exists. The WTCS does not have a similar policy, but Kate Prescott, who works at a technical college, referenced the UW policy:

I can't remember their exact policy, but it's always interesting on their [UW] articulation agreements, the first paragraph outlines policies, you know, whichever ones they are right within the agreement, and we were just working on a reverse agreement with [UW institution] and I was thinking, "I wonder if we have like specific policies that I should include too?"...But it does seem like UW system and the Board of Regents are very strict with how things are...So that's one thing that would be nice, I guess if there was a policy, if we were doing those agreements, I could replicate that for our system as well and document it here.

Kate suggests the UW system office has vetted the significant institutional policies through their leadership and the Board of Regents that are required to be included in an agreement with an external institution. Having a template for all the UW institutions to use ensures that they are following SYS and Board of Regent policies while also ensuring consistency across the system. The desire to reproduce this process for the WTCS institutions could also keep the university partners informed about key WTCS policies and reduce the burden on transfer coordinators from having to develop multiple, individual articulation agreements.

The WTCS ESM has a policy for systemwide articulation documentation processes, but they are not for a singular articulation agreement between one UW institution and one WTCS college. Rather, they are agreements that all 16 technical colleges can participate in with one bachelor's degree granting partner. A transfer coordinator at a technical college, Lauren, discussed her perspective of the systemwide agreements:

I have noticed that the system office seems to be signing some like statewide agreements with certain institutions. I don't personally have any context for how they decided to move through that, you know, to enter into that agreement. I've just seen the paperwork forwarded to me after the fact. It's not necessarily bad. It's just don't understand. I don't know what the strategy is at the moment. Those seem to be five years in length. Again, don't know why. But that recently, in the past three months, I've seen a handful of those come through where they are, my guess is that an external institution comes to them, approaches the system office, and they say, "Okay", and they, you know, get all the [WTCS] institutions to sign on and so, okay, we have a new agreement. In my opinion,

that is step one of 1,000 in terms of figuring out like, well, what does it mean? Yes, we have this new piece, but only one institution has asked for a follow up in terms of setting up a new, like a partnership type of arrangement.

The process documented in the ESM states that one of the technical colleges should be designated as the manager of the systemwide articulation agreements, not the system office who only provides the opportunity to convene chief academic officers of the colleges to discuss, review, and sign onto the agreement. The WTCS system office hosts a repository for these agreements, but ultimately what Lauren describes as a system office initiative is actually something led by an individual technical college. However, the idea that transfer coordinators, who have a responsibility to develop and maintain articulation agreements — as well as promoting them to students — are unaware of how these agreements are originated and are not involved in the process for vetting them suggests a disconnect. The academic leadership of their institutions are signing onto these agreements, but the transfer coordinators will be responsible for the upkeep and relationship management without having a strong understanding of the strategy behind signing onto the systemwide agreement.

While not commenting specifically on the articulation agreement policies themselves, participants' views on their usefulness is mixed. Dr. Sally Transfer believes that transfer in Wisconsin has been “very sticky...very muddy” but that articulation agreements are helping, and the institutions are moving in the right direction. Therese discussed the challenges in the maintenance of the agreements and making sure they are still relevant and that students understand what they mean:

I spent the last year reaching out to institutions saying, “Does this [articulation agreement] still exist? Is this still active? Is this something that is still good for our students? Do we still want this to be in the agreement? Has it ever been used before? Just all of those questions that up until this point no one had ventured to ask... I [now] have them actually divided by career pathways. So, when students come in, even though the agreements have a lot of jargon and different things in them, it's something physical, that

we can at least go to the path that is typically laid out in them and we can kind of talk through what that means. So, we're definitely in the rebuilding stages. I would say we have a lower number than we've maybe shown in the past because our thing is not necessarily the quantity, the quantity of agreements, but we want to make sure that their quality and that we're really fully understanding what the pathway is for the students, how they would do this. And making sure instructors are also informed of these so they can be having those discussions within classrooms as well.

While some transfer coordinators appear to be emphasizing the use of articulation agreements to help students gain knowledge that could help them successfully navigate their transfer pathway between the two-year and four-year institutions, there are many questions that can be asked about the validity of the agreements and whether or not they are benefitting students.

As framed by the UW policy for articulation agreements, the signed document guarantees credit transfer from the completion of a degree or certificate at a WTCS campus to a specific university major. The guarantee language, however, was called into question by Lauren:

I don't think that there's great accountability to those actual agreements. And the only way that we know when they're failing is when a student comes back and tells us, but that's, I think, pretty few and far between. So, what we have found between agreements that are currently valid between even our local partner institution, on occasion a student will come back and tell us about their experience, and it's not being honored, and so it wasn't honored on the front end, if you will. And so, you know, through negotiations and conversations back and forth, we might be able to correct some sort of discrepancy but that's only if the student comes back and complains and tells us about what it was. So, there is a great degree of variability, it appears, between who the student communicated with in that particular institution and how it was brought in... The agreement has to be broad enough, of course, you can't discuss every single scenario and I totally understand that. It's just that right now... those same things, they don't serve a lot of purpose. And even to the degree with some kind of frank conversations that I've had in the last two, three months, where you know, our closest transfer partner has even suggested that we sunset a few of them, you know, that they no longer makes sense to maintain. And it's both refreshing and concerning at the same time.

Again, the question about how articulation agreements serve students is raised. Without some type of feedback, either from the student or from the transfer institution, colleges have little idea about the transfer articulation experience and if the institutions that signed the agreement are honoring it in a way that ensures the applicability of course credits stipulated within the

agreement. There is some consensus around having quality agreements and partnerships as opposed to developing several agreements that are not purposeful and that students will not engage with.

Interviews with transfer coordinators and the agenda for the annual statewide transfer coordinator meeting suggest that CPL policy is an area of revived interest for the UW and WTCS. Both systems have longstanding policies to guide their institutions. UW policy provides direction about the process to evaluate learner competencies acquired by a student through formal and non-formal learning experiences and how to assess whether the learning outcomes from these experiences are comparable to those required as part of a college-level course or academic program. The policy lists the categories of prior learning assessments that can be recognized and used by UW institutions. It establishes that each institution has the authority to determine course equivalent credits they will grant to the student and how the credit will apply to the degree, guided by institutional policies. The policy was established through the work of a faculty-based Prior Learning Assessment Academic Planning and Policy Task force in 2011 (Universities of Wisconsin, 2023b).

In conversation with Thomas at a UW institution, he shared that the UW SYS policy was useful, especially in the way it provided permissions to the institutions and is fairly accommodating. It allowed his institution the authority to write their own policy without “a fight” or “roadblocks from the system.” He was able to point to system guidance and policy and give faculty who are nervous reassurance due to the existing policy. He explained:

We can recognize a recommendation because System allows us. Sometimes they [faculty] are just resistant. They don't want to be the one who takes their finger out of the dike. It is helpful to say, “We actually can do this, and it is allowed.”

Thomas further explained that the UW SYS policy does not require academic departments at the universities to evaluate and accept CPL. It just sets the ground rules so that department can choose what they want to do. It ensures that departments have principles and guidelines to consider. Some departments are very engaged in CPL while others have not expressed interest. Across his institution, he described CPL as “scattershot” and not centralized; as a transfer coordinator positioned in the registrar’s office, he is only involved in entering the credits into a student’s record.

Similarly, the WTCS Board Policy and ESM policy on CPL is broad and assigns authority to create institutional policies to the colleges as long as they align with the system policy. The policy states that the 16 technical college districts must provide maximum recognition for work completed through nationally or regionally accredited postsecondary institutions or other education, training, or work experiences pertinent to the student’s new educational programming and the graduation requirements of the technical college. The policy sets minimum grade point averages; the treatment of articulated credits negotiated between high schools and technical colleges, and allowance for the colleges to set time limits restricting the awarding of credit for CPL; and the authority to develop policies and procedures for implementing the WTCS CPL policy if it is consistent with Board Policy 323 and procedures developed by the System Office.

One of the defining characteristics of the WTCS policy is that among the 16 technical college districts, if one college awards a student CPL, other colleges within the system “should affirm the full transferability among WTCS colleges of similar courses, and those courses adopted as part of a System-wide curricula. Transfer credit is awarded at the time the student is admitted” (Wisconsin Technical College System, 2024). Whereas the UW encourages the

transfer of CPL and institutions within the system to evaluate CPL reviewed, assessed, and transcribed as a course equivalent by one UW institution for acceptance in another institution, the WTCS policy is more explicit about the transferability of CPL. Dr. Esme Gutierrez discussed how the WTCS institutions recognize CPL as transfer credits across the system:

I think the systemwide MOU is something that we reference a lot and that's kind of the basis or foundation of a lot of our processes and guidelines that we've created. The MOU among [WTCS institutions] came out about the same time that I started, so that was where I think we did some things prior to that - when we didn't have a lot of really formalized processes - that we have written down. So, as we developed and tried to expand some of our processes, that MOU was an important piece of it because we always wanted to make sure we aligned ourselves with that.

The agreement and recognition of CPL across WTCS institutions is positive for students who can transport that credit with them, regardless of the institution that awarded it. This means that students do not have to retake prior learning assessments or challenge exams or create additional portfolios between the two-year public institutions. However, when it comes to transfer between the technical colleges and universities, CB, a transfer coordinator at a technical college, notes the lack of recognition of CPL at the four-year institutions. She describes the process that once CPL is awarded at a WTCS college, there is a code that is added to the students' transcripts which only WTCS institutions recognize. While the CPL policy is great for the technical colleges, her experience with a partner university is that they refuse to accept the CPL they have awarded a student. Dr. Gutierrez also further elaborated on her desire for better system-to-system coordination of CPL:

It's something I'd love to see expanded as a two-way street with [the other system] as well. I know that's not happening right now. Because we always put the disclaimer in the information, well, if you get credit via challenge exam or via another alternative means of CPL, it may not be transferrable to another institution outside [the system] because we don't have an agreement with them.

Each system's separate but similar CPL policies raises an issue where there are different higher education governing bodies in a single state working to achieve the same goal of recognizing the skills and learning that students take part in outside of the traditional classroom by awarding academic credit toward a degree, when it is assessed to be equivalent. One reason CPL is not a statewide policy (except for the awarding of academic credit for military and education service) could be that due to the nature of career and technical education and the population of adult, working students served by Wisconsin's technical colleges, CPL fits better into applied associate degrees and certificates. However, as Kate Prescott noted, "I know that credit for prior learning has become more of a topic with transfer and there's a separate committee that's working it in the system." The annual transfer coordinator meeting featured a moderated panel of system and institutional representatives from the UW, WTCS, and the Wisconsin Association of Independent Colleges and Universities to discuss best practices for awarding CPL across institutional types. This topic was of interest to the transfer coordinators as Doug Jones commented, "We would like to know about what others are encountering. We don't see much of it really."

Summary of Findings

State- and system-level transfer policies are intended to facilitate and improve transfer practices between two-year and four-year institutions. Policymakers behind public postsecondary education transfer policy strategy in Wisconsin have emphasized course and credit equivalency as the most important element of efficient and effective transfer. Held together, the computer-based transfer system, the UCTA, and academic credit for military service are focused at the course credit level. They allow transfer coordinators and students to examine the mobility of individual earned credits as opposed to coordinating the portability of entire degrees or creating

the conditions for students to transfer in learning earned outside of traditional higher education through CPL, except for military-connected learners. While many of these policies seemed aimed at helping students gain a better understanding of how their credits will transfer so they can plan for an educational pathway that begins at a two-year institution and concludes with a bachelor's degree earned at one of the state's universities, in reality, the laws have produced resources that are sometimes more useful to transfer coordinators and other college personnel involved in the transfer process.

Transfer coordinators felt that state- and system-level transfer policies can be confusing, information is not well disseminated, and in some instances, state policy is unnecessary as it just codifies information and practices that institutions were already engaged with. Feelings were mixed about the accountability for the policies and if receiving institutions were adhering to their intent because of the exceptions written into policy due to the differences in academic programming between institutions that affect not only the transferability but also the applicability of course credits toward degrees. For this reason, institution-to-institution transfer agreements are more prevalent in Wisconsin, while state level policies play a secondary role.

State level transfer policies in Wisconsin are a conservative approach to addressing the declining transfer rate between the technical colleges and universities. Descriptively, since these policies were implemented, the transfer rate between the systems has declined. Other contributing factors such as overall decline in enrollments, the COVID-19 pandemic, and loss of confidence in the value of higher education, are surely also contributing factors. While many transfer coordinators felt the state Legislature and policymakers had made a good start toward solving credit and transfer mobility problems, many felt the influence of the state policies on transfer were declining and that more substantial policies would be required. More intentional

policies would require learning from institutional leaders about issues transfer students face and turning that feedback into a coordinated effort to address differences in institutional policy implementation and improve the experience of transferring courses and degrees between institutions.

Chapter V: Discussion, Implications, and Conclusion

The purpose of this dissertation was to investigate the implementation of state-level transfer policies developed to support students' transitions between public higher education institutions in Wisconsin. Through a multi-source case study approach, this research fills an empirical gap in the literature about the intended educational outcomes of policies and the reality of implementation at the institutional level. This final chapter discusses the meaning and implications of the study's findings. The chapter begins with a discussion of the relationship between the results of this study and prior research and the significance of the findings. The chapter will also address considerations for conducting further research on state and system-level transfer policy, in which reflections on methodological approaches and participant populations will be provided. The chapter concludes with overarching reflections on the case study.

Relationship of the Results to Prior Research

In the absence of a critical mass of studies about state and system-level transfer policies, I intended for this research to contribute to the extant literature on the various types of transfer policy mechanisms employed in a single state and how institutional transfer coordinators implement them through their job responsibilities. As noted in the literature review, several quantitative studies using national data sets focused on the presence of a state policy and the effect on transfer outcomes such as loss of credits, transfer rates, and bachelor's degree completion for transfer students. These studies help compare outcomes in states with transfer policies to those without and note the influence on outcomes due to the presence of the policy; however, they do not provide the nuanced context to understand how multiple, interconnected policies are implemented and the evidence the people responsible for implementing the policies can provide about whether they are achieving their intended outcomes.

Even though the purposes and research designs of those studies deviate from this case study, a number of similarities emerged. At a broad level, this research was bounded by a singular state and used data specific to that state — Wisconsin — just as other researchers designed their studies in California (Baker, 2016); North Carolina (Worsham et al., 2021); Ohio (Soliz and Boatman, 2018); and Texas (Schudde et al., 2021). As in those studies, the prevailing transfer pathway examined was vertical transfer between two-year and four-year institutions, although in the Wisconsin study, transfer coordinators did broach the topic of CPL and reverse transfer, and the WTCS report denotes the number of bachelor's degree holders that transfer into their colleges.

This case study also identifies a general education common core-like policy, the UCTA, intended to ease transfer and coordinate the course offerings between institutions within a state's boundaries. As illustrated by Wattenburger (1985), state governments have allowed different institution types to offer coursework based on their sector and mission. However, general education courses are the courses most frequently recognized for credit by receiving four-year institutions. In the Wisconsin study, there is an emphasis on general education course transfer through the actions by the UW to grant permission for the WTCS to offer the Associate of Arts and Associate of Science degrees (comprising mainly of general education courses) and the closure of several UW branch campuses that only offered general education courses designed to transfer into a four-year degree. Similarly, the UCTA list only includes general education courses, reflective of general education common core policies in other states and mentioned in the prior research, that has been adopted to the Wisconsin context.

This study also reinforces the results from prior studies examining publicly available information about transfer and assessing it to be insufficient and convoluted. Schudde et al.

(2021) investigated this phenomenon from the student perspective, but it was clear that transfer coordinators in Wisconsin also had a lack of clarifying information and were often times responsible for translating ever-evolving information into something digestible for students and parents. The UW system policy addresses the presentation of transfer information requiring its institutions to keep it transparent and up to date, but this study confirms that visibility and clarity of information is a challenge for different stakeholders involved in transfer at an institution, including those who are transfer professionals.

The Wisconsin study descriptively and anecdotally substantiates that statewide transfer policies have not provided evidence of a positive impact on the number of students transferring between institutions in two separately governed systems, but it illuminates that there are nuances in the way individual institutions interpret and implement policies (Baker, 2016). Unlike previous studies which employ strict parameters for an articulation agreement (Anderson et al., 206b), this research encompasses multiple state and system policies. It also deviates from other studies that were focused on the impact of a policy on specific outcomes of interest; this study explored multiple possible outcomes from the perspective of those who are closest to the application of policy at their institutions.

Because state transfer policy in Wisconsin includes academic credit for military service and CPL, there was significant attention in the interviews about the transfer of CPL credits. While other studies only explore vertical transfer, the current study examines multi-directional transfer and provides an entry into the discussion about how CPL fits into a state's overall transfer strategy. None of the findings from this study contradicted previous research but rather provided complimentary evidence and another lens to view the ways in which state policy is intended to improve transfer and credit mobility between institutions.

This study reveals that state and system-level transfer policies in Wisconsin, while well-intended, have yet to improve vertical transfer (or other types of transfer that is insufficiently studied) as evidenced by the downward trend in the number of transfer students moving between the two systems, including between the former UW Colleges and the UW. This pattern aligns with the national trend in which the percentage of students who successfully transfer is lower than the percentage of students who aspire to transfer. It also demonstrates that governance structures are not always designed with collaboration in mind, and only when legislated, does transfer coordination happen. The lack of institutional policies and cooperation among institutions will continue to perpetuate existing barriers for transfer and will fail to keep up with the complex postsecondary enrollment patterns of students (Goldrick-Rab, 2006; Wang & McCready, 2013) and the diversifying demographics of students and their lived experiences they are bringing to higher education (Bray & Beer, 2020; Klein-Collins et al., 2020).

Significance of Findings

There are multiple state- and system-level transfer policies simultaneously in play in Wisconsin which overlap with the backdrop of a state where two separate systems of higher education co-exist but have not historically worked together as a cohesive statewide system. In addition to the evolving transfer landscape and reforms, the UW has been organizationally restructured in the past decade to essentially eliminate what were once their affiliated transfer institutions, the UW Colleges. These campuses, facing enrollment declines, have been forced to close while the WTCS received approval from its own Board and the UW Board of Regents to offer the A.A. and A.S. degrees. Because of these significant changes to public higher education across the state, this dissertation captured data about transfer at a pivotal time for Wisconsin's institutions as they add and eliminate transfer programs to meet student demand.

Despite this reassignment of responsibility for the A.A. and A.S. academic programming from the UW to the WTCS and any inter-system coordination that was necessary for this change to occur, the two systems continue to operate under different sections of Wisconsin law. Additionally, there are no formal system-level transfer task forces or groups that focus on improving transfer between the two systems besides the annual transfer coordinator meeting which is not concentrated on only the public institutions in the state. Transfer coordinators within the two systems meet once a year, along with transfer coordinators from the Tribal Colleges and the Wisconsin Association of Independent Colleges and Universities, for a one-day transfer coordinator meeting. Little evidence of voluntary efforts to work on issues related to transfer exists outside of regional institutional collaborations, even though it appears that transfer is a topic of priority for the state's policymakers.

Based on the analysis of transfer policies in place, policymakers who developed the transfer strategy in Wisconsin have prioritized course and credit equivalency over other types of state policy reforms, such as the articulation of associate degrees or joint program pathways. Resources like Transferology and TES, the UCTA, the ACE recommendations for academic credit for military service direct transfer coordinators and students to explore the mobility of individually earned credits. The ultimate goal of these policies may be transparency and visibility of this information, which could logically be one part of creating the condition for effective and efficient transfer between two-year and four-year institutions, but the declining transfer rates between the two systems suggest that a course credit approach may not be all that is necessary to produce stronger transfer outcomes.

Given different institutional contexts, it stands to reason that institutional actors will have differing perspectives about the practicality of state- and system-level policies. Some of these

policies may be more applicable to their work than others. For example, from the perspective of two-year transfer coordinators, policies that mandate greater collaboration and accommodation of students from the two-year colleges could be beneficial, while four-year institutional actors may be interested in resources that help them assess and evaluate courses and curriculum that is not offered in their own academic departments. Similarly, the mixed results transfer coordinators experience with applying policies to their everyday job responsibilities is based on institutional contexts influencing perceptions of the relationship between state and system-level policy mandates and the reality of implementation: what they see as the need to improve transfer versus how policymakers have decided to address the issue.

Based on the multi-faceted nature of the transfer coordinator position, whereby these professionals have multiple job responsibilities and are knowledgeable about transfer processes involving a variety of stakeholders across their institutions, they are well positioned to provide a comprehensive viewpoint about state- and system-level transfer policies. Transfer coordinators in Wisconsin reported that state- and system-level transfer policies can be confusing, information is not well disseminated, and in some instances, state policy is unnecessary as it just codifies information and practices that institutions were already engaged with. Feelings were mixed about the accountability for the policies and if receiving institutions were adhering to their intent. Because of the exceptions written into policy due to the differences in academic programming between institutions that affect not only the transferability but also the applicability of course credits toward degrees, institution-to-institution transfer agreements are more prevalent in Wisconsin, while state level policies play a secondary role.

State level transfer policies in Wisconsin are a conservative approach to addressing the declining transfer rate between the technical colleges and universities. Descriptively, since these

policies were implemented, the transfer rate between the systems has declined. Other contributing factors such as overall decline in college enrollments, the COVID-19 pandemic, and loss of confidence in the value of higher education are surely also contributing factors. While many transfer coordinators felt the state Legislature and policymakers made a good initial effort toward solving credit and transfer mobility problems, many felt the influence of the state policies on transfer were declining and that more substantial policies would be required. More intentional policies would require learning from institutional leaders about issues transfer students face in reality and turning that feedback into a coordinated effort to address differences in institutional policy implementation and improve the experience of transferring courses and degrees between institutions.

Implications

Implications for Theory

This study offers multiple lenses through which to view transfer policy implementation in a state context. As previously discussed, the review of the literature on this topic revealed that state transfer policy is under-theorized in the literature. Therefore, there is an opportunity to think about the multiple actors who contribute to this process and define a framework that encompasses the legislation or mandates driven by state- and system-level policymakers and directed toward public postsecondary institutions, how actors at those institutions respond to the policies and implement them within their unique contexts, and the role that collaboration between institutions plays in the overall transfer ecosystem of a state.

The present study suggests that policy is driven by the state legislature (the principal) and is mediated and interpreted through the system offices in a top-down approach to their affiliated institutions (the agents), in alignment with Principal-Agent Theory. There are documented

incentives and penalties for non-compliance with the will of the principal. Most pronounced in recent years are the penalties; if legislators hear from constituents that state-supported institutions are not performing as expected, legislators have withheld resources or passed policies that seek to remedy the non-performance. Examples of how this has played out in the Wisconsin context are the lack of state funding or tuition freezes for the UWs for non-adherence to gubernatorial and legislative ideology and the ongoing reorganization of the UWs by the system administration after declining enrollments at the former UW colleges. Both sectors have been subject to several legislatively driven policies to improve the experience students have when transferring between them.

In combination with Principal-Agent Theory is the action of the agents (institutions) and how they not only comply with policy but how the policy is implemented within institutional contexts. With transfer coordinators serving the role of street-level bureaucrats, they work with multiple stakeholders and carry out the state and system policies in their unique contexts. However, one missing element from the existing frameworks is the explanation about the significance of institutional relationships. These institutions are bound by their relative higher education systems and geographic institutional partners and do not act in isolation. Few existing studies examine transfer partnership among institutions, and we know little about their interdependence in relation to policy. This relationship could be better integrated into a theoretical framework.

In this study, transfer partnership was not central to the participants' conceptualization of successful implementation. Transfer partners were characterized as both collaborative and barriers to overcome. An opportunity to think about the presumed relationships on a spectrum would provide more information about where barriers to transfer are occurring, outside of

legislated policy relationships. Figure 4 demonstrates an emerging theoretical framework in states where two distinct systems of higher education operate under the same state policies but have different system-level policies that could foster more cross-institutional collaboration.

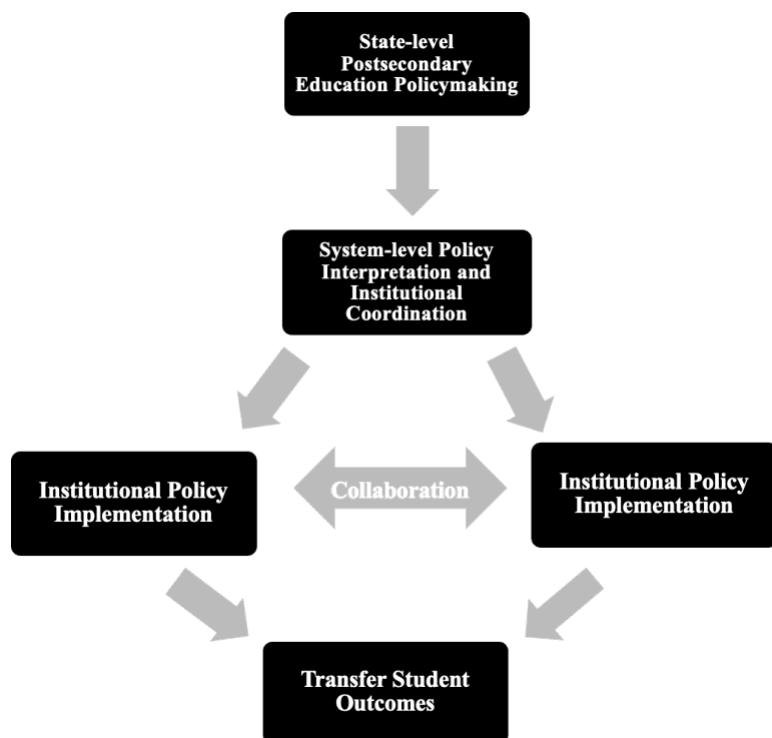


Figure 4

Emerging Framework for State and System-level Policy Implementation. In this framework, the principals (state governments) have a vested interest in improving transfer student outcomes through policy. The policies, guided by data and evidence, are interpreted by system-level governing bodies into policies relevant to their context and pushed out to their respective institutions. The agents (institutions and institutional actors, like transfer coordinators) interpret and implement the policies collaboratively, so even if there are separate policies at the system level, institutions are collaborating in a way that leads to positive transfer student

outcomes by collectively traversing the known barriers for transfer students. Future research on this topic that is guided by theory should consider an integrative multi-level framework like the one I am proposing through this study that provides the conceptual tools to focus on different levels of actors and how they function, interact, and influence one another, especially the micro-level actors which are in this case, transfer coordinators.

Additional theories of policy implementation could be useful in explaining in more detail how policy influences human behavior and shapes individual choices and interactions within social networks. Some public policy theories highlight autonomous decision-making while others emphasize the role of social interactions and organizational culture in shaping behavior (Coburn, 2016). A new multi-level framework could draw from these theories to investigate how these factors influence individuals' responses and then examine the outcomes of these decisions within and across institutions, as scholars have noted a key aspect of policy implementation is how implementing agents come to understand their practice and how this changes their beliefs and attitudes in the process (Spillane et al., 2002). Other frameworks for understanding and measuring collaboration, like the multidimensional model proposed by Thomson et al. (2009), could also help define the meaning of "collaboration" in the context of the framework so that it can be accurately measured both before and after the policy intervention. Without this element of a theoretical framework, it is difficult to determine whether what is being observed or reported on is truly collaboration. Any emerging framework should be holistic and integrate the macro-level of policymaking at the state level with the micro-level of implementation at the individual level (McLaughlin, 1987).

Implications for Policy and Practice

The major aims of this study were to document the multiple transfer policies in Wisconsin and to gain a better understanding of how transfer coordinators experience and apply these policies in their job responsibilities. Through the interviews with transfer coordinators, a variety of ideas were surfaced that could be applied to policy refinements or the development of new state- and system-level policies to improve transfer across the state.

This dissertation provides evidence that future policy efforts could be made to better coordinate communication across public institutions of higher education to ensure a more equitable experience for students across the state. The current process relies heavily on individual institutions communicating information with each other, but the dissemination of information pertaining to transfer and transfer policy does not appear to happen in a coordinated manner. Transfer coordinators mentioned getting information from their corresponding system occasionally and they also discussed how information from system offices is first disseminated to leadership at their institution, but they are rarely the individuals to be involved in important discussions around policy changes. They are often left without a stable contact at each institution as individuals get promoted or leave, and people are left without a person to communicate with. The *Transfer Wisconsin* website is supposed to host some of this information, but the website is outdated, and it is unclear how many transfer coordinators use it as a resource. Therefore, implications for policy development at both the state- and systems-level could be to direct resources toward developing processes for formal communication to all individuals at an institution who are involved in transfer and the presentation of accurate information to help transfer coordinators in carrying out implementation of statewide policies. As part of these processes, transfer coordinators mentioned the opportunity to meet more than once a year to discuss transfer, but supporting additional opportunities for collaboration was also requested.

Many of the participants recognized the need for enhanced data collection and reporting on transfer student outcomes for continuous improvement of policies as a need for the state of Wisconsin. Currently, very little accessible information exists through the UW Accountability Dashboard or through the annual WTCS Credit Transfer report. Transfer coordinators shared that it has been difficult to track which institutions students who begin with the associate degree transfer to (if they transfer successfully), and if they earned their degree. The National Student Clearinghouse data is at least a year delay, assuming that the student transfers immediately. Most institutions have not been collecting data on transfer students nor sharing data with their transfer partners. A lot of their understanding about where students transfer is anecdotal and does not allow transfer coordinators to tailor institutional practices or relationship development based on evidence and data.

Transfer coordinators indicated they would appreciate having more feedback and the ability to disaggregate data by student populations to better discern which of their efforts are working better for some demographics and where there needs to be more attention toward equity. Most institutions do not appear to have transfer information at a granular level to understand specific populations; however, transfer coordinators recognize that there is no “one size fits all” approach for new majority learners. Policymakers could consider supporting a data system to help institutions understand students’ experiences and develop policies that support successful transfers. This data can also help students understand how different institutions will support their degree progression and how to minimize financial cost and the potential for credit loss. Better data, reporting, and feedback systems about inter-institutional transfer for multiple audiences would be a welcome addition to the existing policy array.

Another potential policy refinement based on the findings of this study is to provide opportunities to better align policy goals with the outcomes Wisconsin hopes to collectively accomplish. The connection of actual policy intent — or what outcome the policy is supposed to achieve — to what transfer coordinators experience in implementation needs to be examined to ensure that statute and policy design is an accurate representation and resolution of the issues being faced by transfer students. It is assumed that the current policies were designed by the Legislature not only to improve student outcomes, but to also incentivize collaboration among state-supported institutions of higher education. But transfer coordinators noted that policy implementation over the years had become less collaborative and that policy changes were not clear or transparent. Additionally, no studies have been identified that evaluate the impact these policy changes have had on transfer outcomes in Wisconsin, which should occur before the decision to move forward with expansion. With all the organizational and policy reforms taking place, there is an opportunity to evaluate current policies for applicability and utility to the way today's students transition between institutions.

Beyond providing recommendations for how current policy could be refined or redesigned to support transfer coordinators in their work to create efficient transfer pathways for students, this study also indicates several areas to consider for the adoption of additional practices. These include intentional and systematic efforts to develop a community of practice among public institutions of higher education in Wisconsin to learn from each other and to provide support for codifying resources that provide opportunities for transfer coordinators to implement policy. Throughout this study, institutional initiatives around transfer were revealed by transfer coordinators in the discussion about their job responsibilities. For example, several campuses talked about the existence of transfer centers on their campus. Most notably, this

provided an opportunity for four-year institutions to have a physical presence on a two-year campus, helping to solidify the relationship between institutions. Other campuses discussed their centers in the context of their programmatic offerings, having identified specialty populations of transfer students — like international students or adult students — they were targeting resources toward. This type of practice takes the intentional dedication of capacity and resources to accomplish, but as a strategic measure, is one way transfer coordinators can accomplish policy implementation in partnership with one another.

As previously discussed, public institutions in Wisconsin are at varying stages of prioritizing transfer for their institution, and the implications for practice will likely hinge on how much a campus wants to invest in initiatives aimed at supporting the two-year to four-year college transition. For those who are prioritizing transfer, several ideas to enhance practice were shared throughout this study. One campus discussed an articulation forum in which there was an open house on their campus to informally welcome all of their transfer partners and the transfer coordinators from those campuses who have been involved in articulation agreements. Another example of existing practice to build on was an event called “reaffirmation days” where transfer partners gathered to reiterate their commitment to serving transfer students and included various levels of leadership and staff involved in the transfer process. While framed mostly as relationship building events, this emphasis on putting collaboration into practice is very much aligned with formal transfer policies in Wisconsin. Additionally, it provides an opportunity for the types of feedback about policy efficacy that transfer coordinators indicate they are missing from their current practice.

One last implication for practice is for transfer coordinators in Wisconsin to be able to build on the learnings accrued through system or institutional participation in external transfer

initiatives. While there may be a lack of dedicated resources to engage in transfer reform efforts at the state level, several transfer coordinators revealed their institutions were part of national initiatives to improve transfer. Examples include engagement with the National Association of System Heads (NASH) transfer work, the Aspen Institute Transfer Intensive, Moonshot for Equity, and other more locally targeted resources like the WTCS system-to-system grants, the Howard Hughes Medical Institute grant to improve STEM pathways, and other engagements where institutions would be poised to share insights from their participation with other transfer coordinators across the state. Institutional leaders can use the findings around improved collaboration to improve policy implementation by taking evidence from these initiatives and modifying them for implementation in Wisconsin.

Implications for Research

Based on the findings from this case study, several recommendations for future research became apparent to fill the gap in the literature. Transfer coordinators are critical to this topic because of their multi-faceted approach to transfer, but qualitative research that includes multiple constituencies, ideally sharing perceptions together like in a focus group, would reveal nuances about how transfer is carried out at that institution. Future research could also include the policymakers responsible for creating the laws, incorporating the historical context of the legislation at the time it was being introduced and debated and the factors that drove them to try to solve the issue of transfer through a policy solution and on what basis have they decided to revise existing laws rather than introducing new ones. There is also a need for more state-specific studies of models that highlight the unique contexts of each states' postsecondary education systems and how those models are being implemented using data about policy effectiveness. We also need

more perspectives about policy diffusion and why certain states have introduced state policies and why others have not gone down that path.

Concluding Thoughts

Transfer between or among institutions of higher education is an important element of the undergraduate experience for many students. With almost half of college students in the United States beginning their education at community colleges, the majority of whom have aspirations to transfer to a four-year institution for a bachelor's degree, it is imperative the pathway for these students is clear. However, the research shows there are many issues with the transfer process as currently designed that are preventing students from achieving their goals. The barriers to transfer are numerous and include issues at the individual, institutional, and state levels. Publicly available information about courses and equivalencies is confusing and outdated, there are noted imbalances in the power structure between two-year and four-year institutions, and state policies are not often accompanied by the resources necessary to facilitate collaborative relationships among institutions of higher education.

Efforts to address these issues are often concentrated with state governments, through their legislative bodies and higher education governing organizations. There has been a proliferation of transfer policies across states, even though the research and data provide limited evidence that these policies boost students' probability of transfer and subsequent completion of a bachelor's degree (Roska & Keith, 2008). In fact, evidence shows that most of these efforts are not resulting in mitigating course credit loss, reducing the time to complete a bachelor's degree, or improving coordination among public institutions within a state.

States governments have the authority to mandate systemic transfer and to create statewide policies and programs. In Wisconsin, there are several state policies occurring

simultaneously. They all have the common characteristic of focusing on the course equivalency element of transfer, meaning students can identify how certain earned credits like general education courses and CPL might transfer into an institution, but the policies do not go beyond this superficial level. Transfer coordinators shared that their policies may be well-intended, but they only represent a few tools they can use in their efforts to support transfer students. Furthermore, they do not meet the standards of best practices that other states have used in developing their transfer policies. Furthermore, having two systems of higher education in the state with historically different missions adds to the complexity as the UW and WTCS are guided by different state statutes, with no centralized body to ensure they are in alignment on transfer.

The power of implementation lies at the institutional level, where a variety of individuals are responsible for interpreting these policies. They are responsible for negotiating the complex relationship between their multi-faceted institutional roles and these external policy mandates. Their discretion around policy implementation results in different perceptions and relationships around transfer. Because they are responsible for serving a variety of stakeholders and translating policy into action, their perspective is critical to gaining a better understanding about the effectiveness of policy design and how it is operationalized in a real-world context. They play a critical role in building evidence about transfer policies and helping policymakers understand the facilitators and barriers to transfer for college students. The critical role of transfer in the higher education ecosystem must remain a focus of policymakers and researchers alike if we are going to help students accomplish their educational goals and support states in their attainment agendas.

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Appendix A

Preliminary Interview Protocol for Transfer Coordinators at Wisconsin

Postsecondary Institutions

1. **Date of Interview**
2. **Participant Information** (Official Title/Gender/Race/Length of Service to Institution)
 - a. Selected Alias
3. **Rapport Building:** Introduction telling the interviewee who I am, that I am a doctoral student at UW-Madison. I am the former Education Director for transfer at the Wisconsin Technical College System office. I worked collaboratively with the UW System Administration on increasing the UCTA to 72 credits and led the efforts by WTCS to expand liberal arts transfer to all 16 technical colleges. I am interested in learning from transfer coordinators at all public higher education institutions in WI about the institutional, system, and statewide policies impacting your work; how you experience them and apply them in assisting students, working with faculty and administrators, collaborating with colleagues at other institutions in the state. Based on your insights, I want to collect and analyze data that will be useful to state policymakers in creating transfer policy that helps students achieve their educational goals.
4. **Reason for Inviting Participants to the Study:** You were selected for this research because you were identified as someone knowledgeable about transfer.
5. **Opportunities for Questions:** Any questions about the information I have shared with you so far?
6. **Logistics:** This interview will last approximately 60-90 minutes. Please feel free to stop me at any point during the interview to ask questions. To help facilitate my note taking, I would like your permission to record our conversation today. May I record our discussion for the purpose of research? Before we begin the interview, I will need your signed consent form to meet the requirements of the UW-Madison human subjects research (the consent form will have a place to affirm consent to record). The consent form lets the participant know that all information discussed during the interview will be kept confidential-no identifying information will be used in the dissertation, and the interviewee has the right to stop the interview at any time if they feel uncomfortable. If there are any questions or concerns about this interview or study, you may discuss them with me at any time. I will leave my contact information for this purpose.
7. **Introduction Questions – Professional Background**
 - a. Please tell me about yourself
 - i. What is your official title at this institution?

- ii. How long have you been in your position?
- iii. How long as you been at this institution?
- iv. Have you worked at other institutions before this role? If so, what was your role?
- v. Tell me about your professional role, responsibilities, and involvement with transfer at (institution)

8. State-Level Questions

- a. What has been your experience implementing the Universal Credit Transfer Agreement on your campus?
 - i. How does it impact your work advising transfer students?
 - ii. How does it impact your work with faculty on assessing credit equivalencies and designing program-to-program articulation agreements?
 - iii. How does it impact your work with institutional colleagues at institutions across the state, both at the UW System and WTCS?
- b. What has been your experience with Transferology and TES and the utility for advising students or as a tool for students to access information and self-advise?
- c. Do state officials (could be system office administrators/legislators/Governor's office) solicit feedback about state policies and initiatives from institutional representatives? Transfer coordinators? If so, what are the channels for providing feedback?
- d. How do state officials (could be system office administrators/legislators/Governor's office) evaluate the effectiveness of these policies? Is there any evidence to suggest that the policies in place help/hamper transfer efforts?
- e. In what ways have the UCTA and the adoption of Transferology/TES impacted transfer partnerships between Wisconsin's postsecondary institutions? Has the policy/initiative contributed to the strengthening of institutional relationships or the development of new institutional relationships? Has it created barriers in any way?

9. System-Level Questions

- a. What are the (UW/WTCS) system-level transfer policies that guide your work and the work of others involved in transfer at (institution)?
 - i. UW System: System Policies and Board of Regents Policies Transfer & PLA
 - ii. WTCS: Board Policies and Educational Services Manual Transfer & PLA
- b. What communications/information do you receive from the (UW/WTCS) system office about transfer?
- c. Are there any resources from the (UW/WTCS) system office that are made available to the institutions? If so, what are the types of resources, and what are their purposes?

- d. How are the (UW/WTCS) system offices involved in how transfer policy is implemented at institutions within the system?
- e. Do system office administrators solicit institutional representatives' feedback about system-level policies and initiatives? Transfer coordinators? If so, what are the channels for providing feedback?
- f. How do system office administrators evaluate the effectiveness of these policies? Is there any evidence to suggest the policies in place help/hamper transfer efforts?

10. Institutional Questions

- a. Describe for me the significance of transfer to the mission of (institution). How does transfer fit (or not fit) into the institution's organizational culture?
- b. Are there any major transfer initiatives at (institution) currently?
 - i. If yes, who at the institution is leading these initiatives? Who else is involved?
 - ii. How are these initiatives communicated to faculty and staff?
 - iii. Do staff at the institution have the opportunity to provide feedback and input about these initiatives?
 - iv. Are there any institutional-specific policies at (institution) that guide transfer work. For example, specific requirements for program-to-program articulation agreements; policies on prior learning assessment; conditions for student advising
 - v. Does your institution collect and analyze data on outcomes of transfer students, pre- and post-transfer?

11. Working with Transfer Students

- a. How does your institution make Wisconsin's students aware of transfer opportunities?
 - i. For WTCS institutions, how visible is transfer at (institution)?
 - ii. How do students get more information about the pathway to a bachelor's degree that starts at a technical college?
 - iii. For UWS institutions, how visible is transfer at (institution)?
 - iv. How do transfer students obtain information about admission requirements, selecting a degree program, and transferring credits?
 - v. What do you know that you can share about students' experiences with transfer once they (leave/are admitted) to your institution? Can you give me some examples or stories of transfer students experiences?

12. Lessons to be Learned from Applied Policy Implementation of Transfer Coordinators

- a. Is there anything you would change about the Universal Credit Transfer Agreement policy? If so, how would you recommend revising or improving it?
- b. Is there anything you would change about Transferology and TES? If so, how would you recommend improving it?

- c. What system-level policies are most helpful to you in carrying out your roles and responsibilities? If you could change any of them, how would you improve them?
- d. How well does the system-level CPL/PLA policy serve students? Are there any changes you would recommend to that policy that would improve transfer?

13. Conclusion

- a. From all the topics we have discussed today, what do you think is the single most important thing I should take away from our conversation?
- b. We've have completed my list of questions-thank you for sharing your time and expertise with me today. Is there anything else you would like to add?
- c. Plans for follow-up/member checking

14. List Any Additional Documents Obtained from Participant

15. Post Interview Comments, Reflections, or Follow-up

Appendix B

Field Observation Protocol

Date:

Location:

Purpose of the Event:

Time Spent:

Questions to Consider:

- What is the goal of the meeting/event?
- Did transfer appear on the meeting agenda?
- Was transfer and/or transfer policy discussed at the meeting?
- How frequently was transfer mentioned?
- Describe the discussion around transfer at the meeting. Pay special attention to how state and system-level policies are discussed and note successes and challenges.
- What are the various titles/jobs of people at the meeting?
- Which participants speak and which participants listen?
- Were there any guest speakers invited to the meeting? If so, who and what is their transfer expertise?
- How do the actions/inactions of individuals at the meeting provide evidence to the importance of transfer?
- What do the actions of individuals demonstrate about their beliefs about transfer in the state of Wisconsin?
- What are the priorities of the systems in regard to transfer?
- What are the priorities of the institutions regarding transfer?

Physical Environment Observations

- Was the meeting held in-person or online or hybrid?
- What is the nature of the physical space?
- Is the space large enough to accommodate participants in the setting?
- Where were individuals seated?

Appendix C

Agenda for the 2023 Annual Wisconsin Collaborative Transfer Meeting



AGENDA

2023 Annual Wisconsin Collaborative Transfer Meeting

October 11, 2023

Alverno College, Milwaukee

9:15 AM	Optional Coffee and Conversation	
9:30 AM	Welcome	Rebecca Larson, Executive Vice President for External Relations, WAICU Christy Brown, President, Alverno College
9:50 AM	Wisconsin Transfer Collaborations and Updates	Julie Amon, Associate Vice President for Enrollment & Student Success, UW System Lucy Fenzl, Dean of Academic Success, College of Menominee Nation Rebecca Larson, Executive Vice President for External Relations, WAICU Colleen McCabe, Provost & Vice President, WTCS
10:15 AM	Military Credit Updates	Brandon Trujillo, Policy Advisor, WTCS Miranda Cross-Schindler, Adult and Military Service Manager, UW-Eau Claire Sheila Kershek, Assistant Registrar, Marquette University
11:00 AM	<i>BREAK</i>	
11:15 AM	Prior Learning Assessments and Credit for Prior Learning Facilitated Panel & Best Practices	Chrystal Seeley-Schreck, Associate Vice President – Instruction, WTCS Rob Ecker, Associate Dean, Northwood Technical College Diane Treis-Rusk, Director of Academic Programs and Student Learning Assessment, UW System Rosland Briggs-Grossman, Director of Academic Excellence Programs, Alverno College
12:00 PM	Working lunch	

(see next page)

12:45 PM	Tiny Earth Project as Collaborative Curriculum	Dr. Lucy Fenzl, College of Menominee Nation Professor Angelo Kolokithas, Northeast Wisconsin Technical College
1:15 PM	Update on Transferology and Transferology Community of Practice	Rachel Aldrich, Functional Analyst – Credit for Prior Learning, Fox Valley Technical College Scott Golueke, Assistant University Registrar for Credit Evaluation Services, UW-Madison
1:40 PM	Breakout meetings for each sector	UW System stay in main room, WAICU in RC102A, and WTCS in RC102C
3:00 PM	Adjourn, Safe Travels	

Appendix D

Data Collection Plan

DATA SOURCE	DATA COLLECTION DESCRIPTION
1. State laws for the University of Wisconsin System - Wisconsin Administrative Code Chapter 36 (Universal Credit Transfer Agreement falls under this statute)	Content Analysis of the Documents. Thematic codes will be developed from the research questions and document content.
2. State laws for the Wisconsin Technical College System - Wisconsin Administrative Code Chapter 38	
3. University of Wisconsin System Board of Regents Policies	
4. Wisconsin Technical College System Board Policies	
5. University of Wisconsin System Administrative Policies and Procedures	
6. Wisconsin Technical College System Educational Services Manual	
7. <i>Transfer Wisconsin</i> website (maintained by the University of Wisconsin System)	
8. <i>Transfer Opportunities</i> website (maintained by the Wisconsin Technical College System)	
9. University of Wisconsin System Accountability Dashboard (metrics related to transfer students)	
10. Wisconsin Technical College System annual Fact Book	
11. University of Wisconsin System Strategic Plan	
12. Wisconsin Technical College System annual Credit Transfer Report	
13. University of Wisconsin System Board of Regents Meeting Minutes (2014 to 2023)	
14. Wisconsin Technical College System Board Meeting Minutes (2014 to 2023)	
15. Wisconsin Legislative Fiscal Bureau Informational Papers: University of Wisconsin System and Wisconsin Technical College System	
16. University of Wisconsin System and Wisconsin Technical College System institutional websites, transfer information	
17. University of Wisconsin System and Wisconsin Technical College System academic program catalogues, transfer information	
18. Wisconsin CollegeSource Transferology and TES websites	
19. Mass media (newspapers, radio, social media) coverage of inter-institutional transfer in Wisconsin	
20. University of Wisconsin System Board of Regents and Wisconsin Technical College System Board meetings	
21. Annual Collaborative Transfer Coordinators Meeting	
22. Institutional Transfer Events	
POTENTIAL INTERVIEW PARTICIPANTS	
Chippewa Valley Technical College Transfer Coordinator	Analysis of recorded and transcribed interviews. Thematic codes will be developed from the research questions and frameworks.
*UW-Eau Claire Transfer Coordinator	
Northeast Wisconsin Technical College Transfer Coordinator	
Lakeshore Technical College Transfer Coordinator	
*UW-Green Bay Transfer Coordinator	
Western Technical College Transfer Coordinator	
UW-La Crosse Transfer Coordinator	
Madison Area Technical College Transfer Coordinator	
UW-Madison Transfer Coordinator	
Milwaukee Area Technical College Transfer Coordinator	
Waukesha County Technical College Transfer Coordinator	
*UW-Milwaukee Transfer Coordinator	
Fox Valley Technical College Transfer Coordinator	
*UW-Oshkosh Transfer Coordinator	
Gateway Technical College Transfer Coordinator	
UW-Parkside Transfer Coordinator	
Southwest Wisconsin Technical College Transfer Coordinator	
*UW-Platteville Transfer Coordinator	
Moraine Park Technical College Transfer Coordinator	
UW-River Falls Transfer Coordinator	
Mid-State Technical College Transfer Coordinator	
Northcentral Technical College	
*UW-Stevens Point Transfer Coordinator	
Nicolet Area Technical College Transfer Coordinator	
UW-Stout Transfer Coordinator	
Northwood Technical College Transfer Coordinator	
UW-Superior Transfer Coordinator	
Blackhawk Technical College Transfer Coordinator	
*UW-Whitewater Transfer Coordinator	
*Indicates the UW institution has affiliated UW two-year institutions administratively connected to the university	

Appendix E

Wisconsin Universal Credit Transfer Agreement Course and Credit Equivalencies

(Last Updated in 2021)

UCTA Courses and Equivalencies						
Learning Goals	Course Subject Set	Institution	Course Title	Course Number	Credits	
Communication	Composition I	UW-Eau Claire	Writing Elective		3	
		UW-Green Bay	First Year Writing	WF 100	3	
		UW-La Crosse	College Writing	ENG 110	3	
		UW-Madison	English Electives		3	
		UW-Milwaukee	Intro to College Writing (main) College Writing & Critical Reading (branch)	ENGLISH 101 CGS ENG 101	3	
		UW-Oshkosh	First Year College Writing	ENG 101 WRT 188	3	
		UW-Parkside	Composition and Reading	ENG 101	3	
		UW-Platteville	College Writing I	ENG 1130	3	
		UW-River Falls	Academic Reading and Writing	ENG 100	3	
		UW-Stevens Point	Freshman English	ENGL 101	3	
		UW-Stout	Composition I	ENGL 101	3	
		UW-Superior	College Writing I	WRIT 102	3	
		UW-Whitewater	Introduction to College Writing and Reading	ENGLISH 101	3	
		Wisconsin Technical Colleges	Written Communication English Composition	801-195 801-136	3	
		Course Subject Set	Institution	Course Title	Course Number	Credits
		Oral/Interpersonal Communication	UW-Eau Claire	Fundamentals of Human Communication	CJ 203	3
			UW-Green Bay	Fundamentals of Interpersonal Communication	COMM 166	3
			UW-La Crosse	Communicating Effectively	CST 110	3
			UW-Madison	Communication Arts Elective		3
			UW-Milwaukee	Business & Professional Communication (main) Intro to Personal Communication (branch)	COMMUN 105 CGS CTA 101	3
			UW-Oshkosh	Introduction to Public Speaking	COMM 111	3
			UW-Parkside	Social Science Elective		3
			UW-Platteville	Interpersonal Communication	SPEECH 3250	3
			UW-River Falls	Interpersonal Communication	COMS 106	3
			UW-Stevens Point	Foundations of Workplace Communication	COMM 180	3
	UW-Stout		Fundamentals of Speech	COMST 100	3	
	UW-Superior		Introduction to Human Communication	COMM 110	3	

		UW-Whitewater	Social and Behavioral Sciences Elective		3
		Wisconsin Technical Colleges	Interpersonal Communication	801-196	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Introduction to Public Speaking	UW-Eau Claire	Speech Fundamentals	CJ 202	3
		UW-Green Bay	Fundamentals of Public Speaking	COMM 133	3
		UW-La Crosse	Communicating Effectively	CST 110	3
		UW-Madison	Public Speaking	COM ARTS 105	3
		UW-Milwaukee	Public Speaking (main) Introduction to Public Speaking (branch)	COMMUN 103 CGS CTA 103	3
		UW-Oshkosh	Introduction to Public Speaking (GE)	COMM 111	3
		UW-Parkside	Public Speaking	COMM/SPCH 105	3
		UW-Platteville	Oral Communication for Professionals	SPEECH 1010	3
		UW-River Falls	Fundamentals of Oral Communication	COMS 101	3
		UW-Stevens Point	Fundamentals of Oral Communication	COMM 101	3
		UW-Stout	Fundamentals of Speech	COMST 100	3
		UW-Superior	Introduction to Communication	COMM 110	3
		UW-Whitewater	Introduction to Public Speaking	COMM 110	3
		Wisconsin Technical Colleges	Speech	801-198	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Technical Reporting	UW-Eau Claire	General Elective		3
		UW-Green Bay	Communication Elective		3
		UW-La Crosse	Technical Writing	ENG 308	3
		UW-Madison	Engineering Professional Development Elective		3
		UW-Milwaukee	Technical Writing (main and branch)	ENGLISH 206 CGS ENG 206	3
		UW-Oshkosh	Technical Writing	ENGLISH 317	3
		UW-Parkside	Technical Writing	ENGL 202	3
		UW-Platteville	Technical Writing	ENGLISH 3000	3
		UW-River Falls	Technical Writing	ENG 367	3
		UW-Stevens Point	General Elective		3

		UW-Stout	Professional & Technical Communication	ENGL 320	3
		UW-Superior	Introduction to Professional Writing	WRIT 209	3
		UW-Whitewater	English Elective		3
		Wisconsin Technical Colleges	Technical Reporting	801-197	3
Humanities & Fine Arts	Course Subject Set	Institution	Course Title	Course Number	Credits
	Ethics and Moral Problems	UW-Eau Claire	Ethical Reasoning	PHIL 120	3
		UW-Green Bay	Contemporary Ethical Issues	PHILOS 102	3
		UW-La Crosse	Philosophy Elective		3
		UW-Madison	Philosophy Elective		3
		UW-Milwaukee	Introductory Ethics (main) Ethics (branch)	PHILOS 241 CGS PHI 241	3
		UW-Oshkosh	Ethics	PHIL 105	3
		UW-Parkside	Introduction to Ethics	PHIL 206	3
		UW-Platteville	Ethics	PHIL 2530	3
		UW-River Falls	Social Ethics	PHIL 240	3
		UW-Stevens Point	Introduction to Ethics in Society	PHIL 101	3
		UW-Stout	General Ethics	PHIL 235	3
		UW-Superior	Contemporary Moral Problems	PHIL 211	3
		UW-Whitewater	Introduction to Ethics	PHILSPHY 261	3
		Wisconsin Technical Colleges	Introduction to Ethics: Theory and Application	809-166	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Thinking Critically and Creatively	UW-Eau Claire	General Elective		3
		UW-Green Bay	Logic and Reasoning	PHILOS 103	3
		UW-La Crosse	Philosophy Elective		3
		UW-Madison	Sociology/Humanities Elective		3
		UW-Milwaukee	General Elective (main and branch)		3
		UW-Oshkosh	Humanities Elective		3
		UW-Parkside	Humanities Elective		3
		UW-Platteville	Philosophy/Humanities Elective		3
		UW-River Falls	Logical Reasoning	PHIL 230	3
UW-Stevens Point		Critical Thinking	PHIL 121	3	
UW-Stout		Critical Thinking	LOG 250	3	
UW-Superior		Critical Thinking	PHIL 212	3	
UW-Whitewater		Humanities Elective		3	

		Wisconsin Technical Colleges	Thinking Critically and Creatively	809-103	3
Social and Behavioral Sciences	Course Subject Set	Institution	Course Title	Course Number	Credits
	Abnormal Psychology	UW-Eau Claire	Abnormal Psychology	PSYC 251	3
		UW-Green Bay	Abnormal Psychology	PSYCH 435	3
		UW-La Crosse	Abnormal Psychology	PSY 204	3
		UW-Madison	Abnormal Psychology	PSYCH 405	3
		UW-Milwaukee	Psychology Elective (main and branch)		3
		UW-Oshkosh	Psychology of Abnormal Behavior	PSYCH 303	3
		UW-Parkside	Social Science Elective		3
		UW-Platteville	Abnormal Psychology	PSYCHGY 4430	3
		UW-River Falls	Abnormal Psychology	PSYC 325	3
		UW-Stevens Point	Social Science Elective		3
		UW-Stout	Abnormal Psychology	PSYC 362	3
		UW-Superior	Abnormal Psychology	PSYC 362	3
		UW-Whitewater	Social and Behavioral Sciences Elective		3
		Wisconsin Technical Colleges	Abnormal Psychology	809-159	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Developmental Psychology	UW-Eau Claire	Human Development	PSYC 230	3
		UW-Green Bay	Lifespan Development	PSYCH 203	3
		UW-La Crosse	Lifespan Development	PSY 212 GEL 999	3
		UW-Madison	Psychology Elective		3
		UW-Milwaukee	Child Psychology (main) Life Span Developmental Psychology (branch)	PSYCH 260 CGS PSY 250	3
		UW-Oshkosh	Developmental Psychology	PSYCH 391	3
		UW-Parkside	Intro to Human Development	PSYC 210	3
		UW-Platteville	Life Span Developmental Psychology	PSYCHGY 2730	3
		UW-River Falls	Lifespan Development	PSYC 245	3
		UW-Stevens Point	Human Growth and Development: A Life-Span Approach	HD 265	3
		UW-Stout	Lifespan Human Development	HDFS 255	3
UW-Superior		Psychology Elective		3	

		UW-Whitewater	Social and Behavioral Sciences Elective		3
		Wisconsin Technical Colleges	Developmental Psychology	809-188	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Introduction to Psychology	UW-Eau Claire	Intro to Psychology	PSYC 100	3
		UW-Green Bay	Intro to Psychology	PSYCH 102	3
		UW-La Crosse	General Psychology	PSY 100	3
		UW-Madison	Intro to Psychology	PSYC 202	3
		UW-Milwaukee	Introduction to Psychology (main) Introductory Psychology (branch)	PSYCH 101 CGS PSY 202	3
		UW-Oshkosh	General Psychology	PSYCH 101	3
		UW-Parkside	Intro to Psychological Science	PSYC 101	3
		UW-Platteville	General Psychology	PSYC 1130	3
		UW-River Falls	General Psychology	PSYC 101	3
		UW-Stevens Point	Intro to Psychology	PSYC 110	3
		UW-Stout	General Psychology	PSYC 110	3
		UW-Superior	Intro to Psychology	PSYC 101	3
		UW-Whitewater	Introductory Psychology	PSYCH 211	3
		Wisconsin Technical Colleges	Intro to Psychology	809-198	3
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Psychology of Human Relations	UW-Eau Claire	Psychology Elective		3
		UW-Green Bay	Psychology Elective		3
		UW-La Crosse	Effective Behavior	PSY 205 GEL 999	3
		UW-Madison	Psychology Elective		3
		UW-Milwaukee	Psychology Elective (main and branch)		3
		UW-Oshkosh	Psychology Elective		3
		UW-Parkside	Social Science Elective		3
		UW-Platteville	Positive Psychology	PSYCHLGY 2030	3
		UW-River Falls	Psychology Elective		3
		UW-Stevens Point	Social Science Elective		3
		UW-Stout	Psychology Elective		3
		UW-Superior	Psychology Elective		3
		UW-Whitewater	Psychology of Human Adjustment	PSYCH 104	3
		Wisconsin Technical Colleges	Psychology of Human Relations	809-199	3

Course Subject Set	Institution	Course Title	Course Number	Credits
Contemporary American Society	UW-Eau Claire	Sociology Elective		3
	UW-Green Bay	Sociology Elective		3
	UW-La Crosse	Sociology Elective		3
	UW-Madison	Sociology Elective		3
	UW-Milwaukee	Solving Social Problems (main) Contemporary Social Problems (branch)	SOCIOL 102 CGS SOC 130	3
	UW-Oshkosh	Social Science Elective		3
	UW-Parkside	Social Science Elective		3
	UW-Platteville	Social Science Elective		3
	UW-River Falls	Social Problems	SOCI 210	3
	UW-Stevens Point	Social Science/US Diversity Elective		3
	UW-Stout	Sociology Elective		3
	UW-Superior	Contemporary Issues in American Politics	POLS 260	3
	UW-Whitewater	Social Problems	SOCIOLOGY 250	3
	Wisconsin Technical Colleges	Contemporary American Society	809-197	3
Course Subject Set	Institution	Course Title	Course Number	Credits
Diversity Studies	UW-Eau Claire	Sociology Elective		3
	UW-Green Bay	Ethnic Diversity & Human Values	HUM STUD 213	3
	UW-La Crosse	Sociology of Race and Ethnicity	SOC 225	3
	UW-Madison	Social Studies Electives		3
	UW-Milwaukee	Race & Ethnicity in the US (main) Sociology of Race & Ethnicity (branch)	SOCIOL 224 CGS SOC 234	3
	UW-Oshkosh	Sociology Elective		3
	UW-Parkside	Social Science Elective - Diversity		3
	UW-Platteville	Race, Gender, and Class in the U.S.	ETHNSTDY 1030	3
	UW-River Falls	Sociology of Diversity	SOCI 220	3
	UW-Stevens Point	Social Science/US Diversity Elective		3
	UW-Stout	Sociology Electives		3
	UW-Superior	Race and Ethnicity	SOCI 273	3
	UW-Whitewater	Race and Ethnic Relations – Engaging Differences Elective		3

	Wisconsin Technical Colleges	Intro to Diversity Studies	809-172	3
Course Subject Set	Institution	Course Title	Course Number	Credits
Introduction to Sociology	UW-Eau Claire	Intro to Sociology	SOC 101	3
	UW-Green Bay	Intro to Sociology	SOCIOL 101	3
	UW-La Crosse	Introduction to Sociology	SOC 110	3
	UW-Madison	Sociology Electives		3
	UW-Milwaukee	Introduction to Sociology (main and branch)	SOCIOL 101 CGS SOC 101	3
	UW-Oshkosh	Intro to Sociology	SOC 101	3
	UW-Parkside	Intro to Sociology	SOCA 101	3
	UW-Platteville	Principles of Sociology	SOC 1030	3
	UW-River Falls	Intro to Sociology	SOCI 100	3
	UW-Stevens Point	Intro to Sociology	SOC 101	3
	UW-Stout	Introduction to Sociology	SOC 110	3
	UW-Superior	Intro to Sociology	SOC 101	3
	UW-Whitewater	Principles of Sociology	SOCIOLOGY 240	3
	Wisconsin Technical Colleges	Intro to Sociology	809-196	3
Course Subject Set	Institution	Course Title	Course Number	Credits
Introduction to American Government and Politics	UW-Eau Claire	American National Politics	POLS 110	3
	UW-Green Bay	American Government & Politics	POL SCI 101	3
	UW-La Crosse	American National Government	POL 101	3
	UW-Madison	Introduction to American Politics & Government	POLS 104	3
	UW-Milwaukee	Introduction to American Government & Politics (main) American Government & Politics (branch)	POL SCI 104 CGS POL 104	3
	UW-Oshkosh	American Government & Politics	POLI SCI 105	3
	UW-Parkside	American Politics	POLS 100	3
	UW-Platteville	Intro. to American Government	POLSCI 1230	3
	UW-River Falls	American Government & Politics	POLS 114	3
	UW-Stevens Point	American Politics	POLI 101	3
	UW-Stout	American Government	POLS 210	3
	UW-Superior	American National Government	POLS 150	3
	UW-Whitewater	American Government & Politics	POLISCI 141	3
	Wisconsin Technical Colleges	Introduction to American Government	809-122	3

	Course Subject Set	Institution	Course Title	Course Number	Credits
	Introduction to Economics	UW-Eau Claire	Introduction to Political Economy	ECON 201	3
		UW-Green Bay	Economics Elective		3
		UW-La Crosse	Economics Elective		
		UW-Madison	General Economics not offered; Social Science Electives		3
		UW-Milwaukee	Introductory Economics (main) Introduction to Economics (branch)	ECON 100 CGS ECO 101	3
		UW-Oshkosh	General Economics	ECON 101	3
		UW-Parkside	The American Economy	ECON 101	3
		UW-Platteville	Introduction to Economics	ECON 1010	3
		UW-River Falls	Modern Economics	ECON 100	3
		UW-Stevens Point	Principles of Macroeconomics	ECON 110	3
		UW-Stout	General Economics	ECON 201	3
		UW-Superior	Economics in Society	ECON 235	3
		UW-Whitewater	Social Science Elective		3
Wisconsin Technical Colleges		Economics	809-195	3	
Natural Science and Quantitative Reasoning	Course Subject Set	Institution	Course Title	Course Number	Credits
	College Physics	UW-Eau Claire	Lab Science Elective		3
		UW-Green Bay	Fundamentals of Physics 1	PHYSICS 103	3
		UW-La Crosse	Physics Elective		3
		UW-Madison	Physics Elective		3
		UW-Milwaukee	General Physics Lab I & Physics Elective (main and branch)	PHYSICS 121 & PHYSICS XN CGS PHY 121 & CGS PHY XN	3
		UW-Oshkosh	College Physics I	PHYS/AST 171	3
		UW-Parkside	College Physics I	PHYS 105	3
		UW-Platteville	Introductory Physics I	PHYSICS 1350	3
		UW-River Falls	Conceptual Physics	PHYS 114	3
		UW-Stevens Point	Natural Science Elective		3
		UW-Stout	Physics Lab Elective		3
		UW-Superior	Physics Elective		3
		UW-Whitewater	Natural Science Elective		3
		Wisconsin Technical Colleges	College Physics I	806-143	3
Course Subject Set	Institution	Course Title	Course Number	Credits	
	UW-Eau Claire	General Biology	BIOL 105	4	

Concepts of Biology	UW-Green Bay	Principles of Biology + Lab	BIOLOGY 201 & 202	4
	UW-La Crosse	Biology for the Informed Citizen	BIO 100	4
	UW-Madison	Animal Biology	ZOOLOGY 101	4
	UW-Milwaukee	Elements of Biology (main and branch)	BIO SCI 102 CGS BIO 101	3 5
	UW-Oshkosh	Biological Concepts-Unity	BIO 105	4
	UW-Parkside	Nature of Life	BIOS 100	4
	UW-Platteville	General Biology	BIO 1150	5
	UW-River Falls	General Biology	BIO 150	3
	UW-Stevens Point	General Biology	BIOL 101	4
	UW-Stout	Introductory Biology	BIO 101	4
	UW-Superior	Concepts of Biology	BIO 123	4
	UW-Whitewater	Biological Foundations	BIOLOGY 120	4
	Wisconsin Technical Colleges	General Biology	806-114	4
	Course Subject Set	Institution	Course Title	Course Number
General Physics	UW-Eau Claire	General Physics	PHYS 211	4
	UW-Green Bay	Fundamentals of Physics 1	PHYSICS 103	4
	UW-La Crosse	Fundamental Physics I	PHY 103	4
	UW-Madison	General Physics	PHYSICS 103	4
	UW-Milwaukee	General Physics I Lecture/Lab (main and branch)	PHYSICS 120 & 121 CGS PHY 120 & 121	5
	UW-Oshkosh	College Physics I	PHYS/AST 171	5
	UW-Parkside	College Physics I	PHYS 105	5
	UW-Platteville	Introductory Physics I	PHYSICS 1350	5
	UW-River Falls	Algebra-Based Physics 1	PHYS 121	5
	UW-Stevens Point	Natural Science Elective		4
	UW-Stout	College Physics I	PHYS 241	4
	UW-Superior	Algebra-Based Physics I	PHYS 107	4
	UW-Whitewater	Principles of Physics I	PHYSICS 140	4
	Wisconsin Technical Colleges	General Physics 1	806-154	4
Course Subject Set	Institution	Course Title	Course Number	Credits
Introduction to Biochemistry	UW-Eau Claire	Survey of Biochemistry and Lab Science Elective		4
	UW-Green Bay	Chemistry Elective		4
	UW-La Crosse	Chemistry Elective		4
	UW-Madison	Biochemistry Elective		4

		UW-Milwaukee	Survey of Biochemistry (main) Applied Survey of Biochemistry (branch)	CHEM 103 CGS CHE 204	5
		UW-Oshkosh	General, Organic and Biochemistry II	CHEM 102	4
		UW-Parkside	Organic and Biochemistry	CHEM 215	4
		UW-Platteville	Natural Science Elective		4
		UW-River Falls	Science Elective		4
		UW-Stevens Point	Natural Science Elective		4
		UW-Stout	Chemistry Lab Electives		4
		UW-Superior	Chemistry Elective	CHEM 189	4
		UW-Whitewater	Lab Science Elective		4
		Wisconsin Technical Colleges	Intro To Biochemistry	806-186	4
	Course Subject Set	Institution	Course Title	Course Number	Credits
	Introduction to General Chemistry	UW-Eau Claire	General Elective		4
		UW-Green Bay	Chemistry Elective		4
		UW-La Crosse	Contemporary Chemistry	CHM 100	4
		UW-Madison	Chemistry Electives		4
		UW-Milwaukee	Chemical Science & Chem Lab (main) Introductory Chemistry (branch)	CHEM 100 & NS+ CGS CHE 125	5
		UW-Oshkosh	General Chemistry I	CHEM 105	5
		UW-Parkside	General Chemistry I General Chemistry I Lab	CHEM 101 CHEM 103	5
		UW-Platteville	General Chemistry	CHEM 1140	4
		UW-River Falls	General Chemistry I	CHEM 111/116	5
		UW-Stevens Point	Basic Chemistry	CHEM 101	4
		UW-Stout	General Chemistry	CHEM 115	5
		UW-Superior	Chemistry Elective		4
		UW-Whitewater	General Chemistry I	CHEM 100	4
		Wisconsin Technical Colleges	General Chemistry	806-134	4
		Course Subject Set	Institution	Course Title	Course Number
	Microbiology	UW-Eau Claire	Microbiology	BIOL 250	4
		UW-Green Bay	Principles of Microbiology	BIOLOGY 323 and 324	4
		UW-La Crosse	Microbes and Society	MIC 100	4
		UW-Madison	Microbiology Elective		4

	UW-Milwaukee	General Survey of Microbiology (main and branch)	BIO SCI 101 CGS BIO 251	5 4
	UW-Oshkosh	Microbial Survey	BIO 233	5
	UW-Parkside	Natural Science Elective		4
	UW-Platteville	Natural Science Elective		4
	UW-River Falls	Microbiology	BIO 324	4
	UW-Stevens Point	Natural Sciences Elective		4
	UW-Stout	General Microbiology	BIO 306	4
	UW-Superior	Microbiology	BIOL 355	4
	UW-Whitewater	Lab Science Elective		4
	Wisconsin Technical Colleges	Microbiology	806-197	4
Course Subject Set	Institution	Course Title	Course Number	Credits
Algebra and Trigonometry	UW-Eau Claire	Pre-Calculus Math	MATH 112	5
	UW-Green Bay	Pre-Calculus	MATH 104	4
	UW-La Crosse	Pre-Calculus	MTH 151	4
	UW-Madison	Algebra and Trigonometry	MATH 114	5
	UW-Milwaukee	Precalculus (main and branch)	MATH 115 CGS MAT 115	4
	UW-Oshkosh	Pre-Calculus	MATH 108	5
	UW-Parkside	College Algebra II with Trigonometry	MATH 114	5
	UW-Platteville	Pre-Calculus	MATH 2450	5
	UW-River Falls	College Algebra and Trigonometry	MATH 147	3
	UW-Stevens Point	Precalculus Algebra and Precalculus Trigonometry	MATH 118 and MATH 119	5
	UW-Stout	Trigonometry	MATH 121	3
	UW-Superior	Pre-Calculus	MATH 115	5
	UW-Whitewater	Precalculus	MATH 152	5
	Wisconsin Technical Colleges	College Algebra & Trigonometry w/ Applications	804-197	5
Course Subject Set	Institution	Course Title	Course Number	Credits
Calculus I	UW-Eau Claire	A Short Course in Calculus	MATH 111	4
	UW-Green Bay	Calculus and Analytical Geometry 1	MATH 202	4
	UW-La Crosse	Calculus I	MTH 207	4
	UW-Madison	Calculus and Analytical Geometry 1	MATH 221	4
	UW-Milwaukee	Calculus & Analytical Geometry 1 (main and branch)	MATH 231 CGS MAT 221	4 5

	UW-Oshkosh	Calculus I	MATH 171	4
	UW-Parkside	Calculus and Analytical Geometry I	MATH 221	4
	UW-Platteville	Math General Education Elective		4
	UW-River Falls	Calculus 1	MATH 166	4
	UW-Stevens Point	Applied Calculus	MATH 111	4
	UW-Stout	Calculus 1	MATH 153	4
	UW-Superior	Calculus for Business, Life and Social Sciences	MATH 151	4
	UW-Whitewater	Applied Calculus Survey for Business and Social Sciences	MATH 250	4
	Wisconsin Technical Colleges	Calculus 1	804-198	4
Course Subject Set	Institution	Course Title	Course Number	Credits
Introduction to Statistics	UW-Eau Claire	General Elective		3
	UW-Green Bay	Business Statistics	BUS ADM 220	3
	UW-La Crosse	Elementary Statistics	STAT 145	3
	UW-Madison	Introduction to Statistical Methods	STAT 301	3
	UW-Milwaukee	Elementary Statistical Analysis (main and branch)	MTHSTAT 215 CGS MAT 215	3
	UW-Oshkosh	Problem Based Inquiry Seminar in Statistics	MATH 189	3
	UW-Parkside	Elementary Statistics	MATH 103	3
	UW-Platteville	Elementary Statistics	MATH 1830	3
	UW-River Falls	Fundamentals of Statistics	MATH 226	3
	UW-Stevens Point	Elementary Statistical Methods	MATH 255	3
	UW-Stout	Elementary Statistics	STAT 130	3
	UW-Superior	Elementary Statistics	MATH 130	3
	UW-Whitewater	Elementary Statistics	STAT 101	3
	Wisconsin Technical Colleges	Introductory Statistics	804-189	3
Course Subject Set	Institution	Course Title	Course Number	Credits
Trigonometry with Applications	UW-Eau Claire	Trigonometry	MATH 113	3
	UW-Green Bay	Math Elective		3
	UW-La Crosse	Math Elective		3
	UW-Madison	Trigonometry	MATH 113	3
	UW-Milwaukee	Trigonometry (main and branch)	MATH 117 CGS MAT 117	2
	UW-Oshkosh	Trigonometry	MATH 106	2
	UW-Parkside	Trigonometry	MATH 113	3

		UW-Platteville	General Elective		3
		UW-River Falls	College Algebra and Trigonometry	MATH 147	3
		UW-Stevens Point	Precalculus Trigonometry	MATH 119	3
		UW-Stout	Trigonometry	MATH 121	3
		UW-Superior	Math Elective		3
		UW-Whitewater	Trigonometry	MATH 151	3
		Wisconsin Technical Colleges	Trigonometry with Apps	804-196	3

Transfer credits will be applied according to transfer accommodations found in SYS 135 UW System Undergraduate Transfer Policy.

Where a range of credits is indicated for a course subject set, it reflects differences among UW System institutions.

Colored cells in the “Course Subject Set” column highlight courses added to the UCTA in the most recent revision of the document.

The UCTA is not intended as a stand-alone advising document. Transferology should be consulted for any updates that may have been made to this information since publication. The UCTA is intended to delineate the course subject sets that meet the criteria for universal transfer among WTCS and UWS institutions. The courses that are included in Table 2 comprise a snapshot of the specific transfer equivalencies that existed at the time the UCTA document was published and may change over time.