

Reverse Transfer Journey: Guided Pathways and the Pursuit of Post-Transfer Success

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I. Introduction

This is a full-length research paper. In the United States, more than 43.1 million individuals are identified as Some College, No Credential (SCNC)—students who began higher education but left prior to degree completion [1]. Bachelor's degree holders, in comparison to those with no degree, are associated with an employment rate 1.5 times higher [2]. Within the population of SCNC students is a subset known as reverse transfer students, which has shown steady growth in recent years. While there are multiple definitions for reverse transfer across the literature, our study focuses on Undergraduate Reverse Transfer Students (URTSs). These are students transferring from a four-year institution to a two-year institution prior to baccalaureate degree attainment [3].

In Illinois, URTSs account for roughly one-fifth of all four-year students, but nearly half of the state's non-degree persisting students. The most recent data from the Illinois Education Research Council found that among a sample of approximately 8,000 URTSs, 51% transferred back to a four-year institution, and only ~25% went on to complete a bachelor's degree [4].

Reverse transfer has received growing attention in higher education research. However, the processes and experiences that shape students' decisions to leave four-year institutions and persist to attain a bachelor's degree are not fully understood. Prior research indicates that a range of financial, academic, and social factors may influence these pathways, but it remains unclear how they interact across students' trajectories [4, 5, 6].

Social integration, the process by which newcomers are incorporated into the social structure of a pre-existing community, has been previously established as a primary predictor of student persistence, as demonstrated by Tinto's model of student departure [7]. A key feature of social integration is a sense of belonging, which is a sense of acceptance, inclusion, and identity for a member within a group. Studies found that students with a lower sense of belonging persist at lower rates, suggesting that belonging is crucial in student success [8]. The connection makes Schlossberg's Transition Theory relevant for interpreting how the quality of coping resources influences newcomers' adjustment, with its pillars of situation, self, support, and strategies, shaping how students navigate transitions [9]. Following the theory's pillars, prior works reference structured peer mentorship and academic support programs affecting a student's sense of belonging. This is imperative to URT when considering it as a transitional period.

Notably, the existing literature has largely focused on the vertical transfer pathway from two-year to four-year institutions, with comparatively less attention given to non-traditional transfer pathways like URT [10]. Due to the limited URT literature, this study utilizes broader transfer and belonging research found in traditional transfer pathways to apply findings, particularly social integration, sense of belonging, and institutional support to URT contexts.

Through the investigation of URTSs' motivations to initially attend four-year institutions and their subsequent decisions to reverse transfer, this study highlights key factors guiding transfer trajectories, including the evolution of students' sense of belonging. In addition, this study examines post-URT experiences to evaluate how two-year institutional interventions influence

the pathways of Returning Reverse Transfer Students (RRTSs)—those who re-enroll at a four-year institution following reverse transfer.

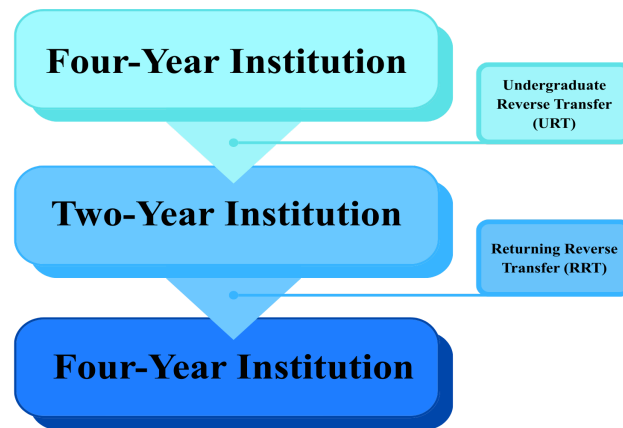


Figure 1. Reverse transfer transitions between institutions

Engineering provides a significant context for examining degree persistence, given the discipline has maintained a degree completion rate of ~50% for decades [11]. As a high-attrition academic field, engineering provides an environment where URTS-related issues, such as persistence, are most pronounced. A Programmatic Learning Environment (PLE) is a guided, structured program that can help address this issue. They include access to several academic and extracurricular activities that are geared towards facilitating student success. The PLE emphasizes student engagement in academic and professional activities, and prioritizes fostering a sense of belonging. By examining the role of PLEs in the experiences of engineering URTSs, this study investigates institutional practices associated with bachelor's degree persistence and post-transfer outcomes.

This study is guided by the following research questions:

Research Question 1 (RQ1): What factors do URTSs identify as influencing their bachelor's degree persistence?

Research Question 2 (RQ2): How do PLEs influence URTSs' sense of belonging, and how is this reflected in their degree persistence and post-transfer outcomes?

The following case study interviews will provide an in-depth perspective on the experiences of seven engineering URTSs. The personal investigation into these students' motivations aims to capture factors that are not always clear with quantitative data alone. To guide our research, we hypothesized that URTSs who engage in PLEs with structured activities and social integration programs may report a stronger sense of belonging, which is associated with improved persistence and post-transfer outcomes.

II. Methods

A. Study Objective

This study investigates the factors that contribute to URT and what interventions or support systems will increase bachelor's degree attainment among URTSs. To understand these factors,

we conducted a collection of qualitative case study interviews. We also incorporated a longitudinal component. We designed the interview protocol using Appreciative Inquiry (AI) as a guiding framework, which is a strengths-based approach centered around change that is used to emphasize the identification and amplification of existing assets, rather than shortcomings [12]. The AI framework was selected over traditional approaches because it promotes a perspective based on positivity [13], encouraging participants to be reflective on their overall URT journey. This choice aligns with the study's objective to identify factors contributing to bachelor's degree attainment and overall academic persistence among URTSs. Case study interviews provide insight into relevant context, complex relationships, and evolving systems [14]. Through the emphasis of support and growth, prompts aligned with the AI framework enhanced the likelihood that factors like belonging and academic preparation would be identified explicitly.

B. Development of the Interview Protocol

This study is designed as a qualitative multiple case study, with each of the seven URTSs treated as a bounded case situated within the same PLE. Participants were asked to partake in case study interviews meant to gauge their sense of belonging and the factors affecting degree attainment and post-transfer outcomes, given their URT background. We conducted a total of seven case study interviews from Wilbur Wright College, a two-year community college. The first six students (Participants A-F) were interviewed while attending a PLE at Wilbur Wright College. The seventh case study (Participant G) features an RRTS who has secured a full-time offer in their field of study.

Interview questions were organized around themes believed to be relevant to the URT experience, including sense of belonging, institutional support, and experiences following transition. The thematic structure of the questions provided the framework for the interpretation of participants' experiences and allowed the interviews to directly address the study's objectives, which contributes to identifying influencing factors of URTSs and their post-transfer outcomes across institutions. The protocol encouraged participants to discuss both strengths and challenges through the use of reflective prompts. While the core thematic structure of the protocol was consistent, the seventh interview included additional prompts focused on post-transfer outcomes to capture longitudinal aspects of the URT experience. This design ensures that key themes remain consistent, while allowing flexibility to capture differences in some participants' experiences.

The AI framework influenced how we investigated cases, while the multiple case study structure allowed us to understand how to bound and compare them.

	Sense of Belonging	Post-Graduation Outcomes
Example Questions	How has your experience in the Engineering Pathways Program influenced your confidence and sense of belonging, especially as you progressed toward and secured your full-time offer?	What aspects of your time in the Engineering Pathways Program or at community college do you think directly contributed to your ability to secure a full-time job offer before graduating?

Table 1. Examples of interview questions organized by thematic categories that emerged across the case studies

C. Context & Sample Characteristics

Wilbur Wright College is a public, two-year community college. The undergraduate enrollment at Wilbur Wright College is approximately 7,800 students, of which 29.6% are enrolled full-time. The institution reports an overall graduation rate of 32.5%. The PLE offered at Wilbur Wright College includes a cohort learning model, access to peer-led tutoring and professional organizations, frequent advising check-ins, and access to career development seminars, providing preparation for careers in engineering and computer science.

All eligible URTSs enrolled in the PLE during the study period were invited to participate via email. Six students volunteered and were selected to participate. The seventh participant was invited to participate at a later date to introduce a longitudinal component. A total of seven participants were interviewed, with each being interviewed once.

Each case consisted of one URTS's trajectory from initial enrollment at a four-year institution, through reverse transfer to Wilbur Wright College, and (when applicable at the time of the interview) subsequent return to a four-year institution.

The initial six participants were interviewed during their enrollment at the two-year college, while they were a part of the PLE. These individuals were attending Wilbur Wright College with the intention of transferring to a four-year institution to pursue engineering and computer science during the time of the initial six interviews. Among these six participants, four identified as low-income, and five of the participants identified as first-generation college students. An additional interview was conducted with a seventh participant during their final semester at a four-year institution. This interview was designed to include additional prompts focused on the student's post-transfer academic, social, and career outcomes.

D. Data Collection Procedures

While individual trajectories were examined, the analytic unit was thematic patterns across cases rather than narrative construction. Each case study was conducted using a set of interview questions developed following the AI framework. The first six interviews followed a standardized interview protocol to maintain methodological consistency across cases. Each interview was conducted in person and spanned between 30 and 45 minutes. Interviews were transcribed and reviewed by a member of the team. All participants were asked questions relating to the same thematic elements, which included questions regarding sense of belonging and institutional support, whereas the seventh interview included additional questions relating to post-transfer outcomes. The first six case study interviews were conducted while the participants were still enrolled at Wilbur Wright College following URT, while the seventh was an RRTS.

E. Data Analysis

We utilized Iterative Thematic Inquiry (ITI), which is a contemporary extension of thematic analysis that frames themes as the foundational component of qualitative analysis. Themes are developed early in the analysis process and are then refined through repeated engagement with

data. Rather than treating coding as the central mechanism, ITI emphasizes writing and memoing as tools for creating, revising, and analyzing thematic patterns [15]. Through this process, themes are used to interpret meaningful patterns across participants' responses. This approach allows recurring instances to function as a crucial component for generating research findings.

Our process began by studying the available literature on belonging and academic support, and establishing themes we believed would be relevant to our research. Our preliminary themes included self-efficacy, academic preparation, and sense of belonging. After interviews were transcribed and reviewed, analytic memos were written by the team to record observations. We then collaboratively used thematic coding to analyze each transcript, organizing interview data by preliminary, and emerging patterns. Through iterative comparison, we finalized themes that appeared frequently and were aligned with RQ1 and RQ2. This led to a sense of belonging and academic support being revealed as central themes, with confidence identified as a new theme from the seventh interview.

F. Ethical Considerations

All identifiable characteristics of interviewees were kept anonymous. Participant descriptions were limited to income status and first-generation college student status. These characteristics were reported because prior research demonstrates that transfer pathways and degree attainment are unevenly distributed across socioeconomic and demographic groups [16]. Reporting these characteristics is necessary for providing contextual information for interpreting these students' experiences and informing institutional considerations when it comes to supporting URTSs' persistence and bachelor's degree attainment.

G. Trustworthiness and Rigor

The trustworthiness and rigor of this study were guided by previously established qualitative research criteria for credibility, transferability, dependability, and confirmability. Credibility was established through in-depth interviews, which included follow-up questions and iterative analysis of case study findings. Transferability was established through precise detailing of the study setting and sufficient contextual detail of participant characteristics, allowing readers to evaluate the applicability of these findings in other institutional settings. Dependability was addressed by conducting interviews in the same manner, and analytic memoing following each interview was used to evaluate and revise themes. Confirmability was supported by analyzing themes based on participants' directly quoted descriptions of their experiences and by interpreting themes with the use of a well-established tool for evaluation informed by AI [17].

III. Results

Upon analyzing the seven case study interviews, the collected responses revealed recurring factors that impacted participants' experiences. The following contains descriptions of participants and their interview responses [18].

Case Study Participant	Pre-URT Experience at initial Four-Year Institution	Post-URT Experience at ABC College
A	Attended a university renowned for its high-ranking engineering programs.	More socially comfortable and academically supported.
	Received full funding at the university, noting "Money was the biggest thing."	"I felt like I was welcomed."
	"Felt miserable" after two years.	
B	Attended a four-year institution with the desire to experience new environments and distance from family.	Better aligned with intended major.
	Felt that the four-year institution lacked diversity and was disconnected, commenting, "I really liked the school but I felt really in the minority here."	"I like how we are all trying to be successful and the really bonds us".
	Wanted to change majors but major of interest was not offered at the four-year institution.	Felt a greater sense of belonging and a stronger connection with peers.
C	Attended a university with the belief that it "would've been a great investment."	Experienced a more prominent social acceptance and stated they "socially belong" due to shared academic aspirations and interests among their peers.
	Received full funding at the university.	
	Struggled academically stating their institution "didn't support the students that were struggling," describing the experience as "really cold."	Felt they could succeed at ABC College because there was "a common goal of wanting to transfer to a four-year institution".
D	Attended a four-year institution where courses were online and asynchronous.	Felt more academically supported and socially connected.
	Experienced difficulties with teachers, recalling that "they didn't care about you as a student."	"I belonged here [ABC College] because it was in-person and I got to know people, teachers, the program, smaller community—nice to have a smaller group of people and understand the process to get my degree."
	Setback by the cost of tuition expenses and believed they were unsupported.	
E	Attended an initial university that was chosen over a second institution.	Reported the two-year institution had a more connected community.
	Took online and asynchronous courses for two semesters, then resided on campus but felt socially limited, recalling they, "[I] didn't really get to see many people outside of my roommates and whoever was on my floor."	"A lot tighter-knit here [ABC College]" and "more welcoming."
	Experienced financial struggle, including the price of tuition causing the anxiety of "debt piling up."	Felt ABC College fostered a "sense of community."
F	Attended a four-year institution due to the "prestige the school had."	"You feel like you can talk to people more one-on-one, especially when it comes to the faculty here [ABC College]."
	"I would say I felt like I belonged there" despite the fact that they "did not really interact with a lot of people."	"I felt like I connected and belonged in this community."
	Found a lack of resourceful support, especially financially. They struggled to afford institutional expenses, especially housing.	Felt that URT led to "academic growth" and more direction regarding their major, degree, and "field of work."
	Attended for two semesters.	

Table 2. Case study results across Participants A-F

The following figure displays how frequently a lack of community, academic support, major selection, and financial stability or support were mentioned as challenges at the four-year institution.

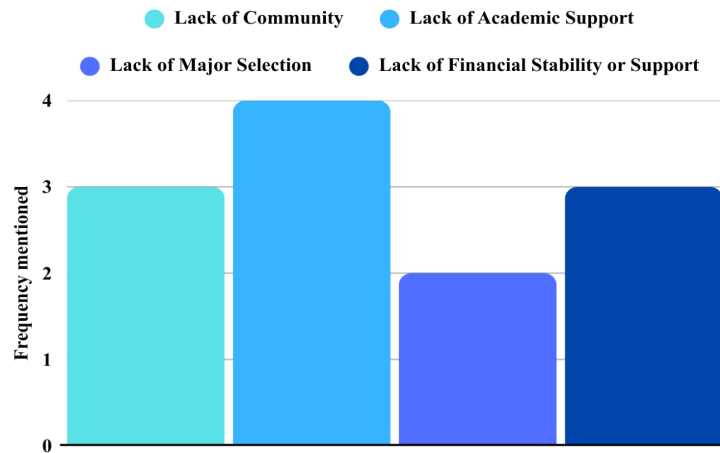


Figure 2. Conditions from the initial four-year institutions that prompted URT across the six case study interviews

Across case studies A-F, lack of academic support was the most frequently mentioned, with four instances. Lack of community and financial stability each received three mentions throughout the case study interviews, while lack of major selection was attributed in two separate instances. Each participant identified two factors that encouraged them to URT.

Lastly, participants were asked to retroactively reflect on their experiences and determine whether they would have chosen an initial four-year institution, a two-year institution, or another option had they needed to make their initial post-secondary education decisions again. Participants (A-F) each gave one response.

Five participants stated that, retroactively, they would have attended a two-year institution. One participant, Participant E, stated that they would not have chosen their initial four-year institution or a two-year institution; instead, they would have chosen to attend a separate four-year institution.

The following case study is the only one that was conducted with an RRTS. It uncovers long-term impacts of the PLE and further expands on the support and opportunities received at the two-year institution that were identified previously in the Work-In-Progress paper [18].

Participant G was interviewed as an RRTS. When describing their experience, they highlighted the support and sense of belonging they continued to experience even after leaving the PLE at Wilbur Wright College. The student also emphasized the belonging and support that was facilitated by the faculty, especially the advisors. Participant G did not only feel like they belonged in the context of their college experience, but they also felt supported more generally in life, “For us, without even our own families to cheer us on, how much the program staff cares about our success is really important because it kind of fills that void.” The participant expressed various advantages of the PLE structure, including cohort learning models, access to internship opportunities, and academic preparation programs. As a result of the academic preparation the student received at Wilbur Wright College, they expressed feeling ready to succeed academically, “I felt confident and immediately comfortable in my classes.” Moreover, the participant expressed being at a remedial level prior to Wilbur Wright College. Before the

student began their studies there, they had access to a bridge program, another aspect of the PLE, which helped to increase their academic preparation prior to starting at the two-year. The student expressed that their confidence increased not only academically, but also in overcoming adversity. When reflecting on which institution they would choose if they had to begin their post-secondary career again, Participant G said they would choose Wilbur Wright College, stating, “I firmly believe it was the best decision I made for my education.”

IV. Discussion

Once at a four-year institution, many students are confronted with several challenges, which may prompt them to reverse transfer. The results identified factors including a lack of financial stability, major selection, academic support, and community (Figure 2). These challenges are not limited to our sample; for example, financial strain is reflected in the broader transfer literature. With the cost of attendance for four-year institutions rising every year [19], many students are encouraged to seek a more affordable alternative. Two students in the sample expressed financial strain as a primary factor influencing their departure (Figure 2).

Additionally, two students identified challenges relating to major selection as a factor influencing their decision to URT (Figure 2). As previously mentioned, Schlossberg’s theory is pivotal during educational transitions. Roughly a third of students transition between fields, which can lead to prolonging their studies. Major changes are a non-linear educational transition that entails uncertainty. Students express feelings of stress around major changes as a result of a lack of institutional guidance. Uncertainty with major transition may intersect with broader factors relating to academic support and sense of belonging [20].

As demonstrated in the transfer literature, feeling socially integrated in a community is crucial for student persistence [7], which belonging is positively associated with [8]. Ensuring that institutions have resources for fostering a community is critical. One intervention that addresses this gap includes programs aimed at providing peer networks, mentorship, and campus activity engagement. This has been showcased in initiatives such as the PRIMER program, a peer-mentoring support program meant to lessen the challenge of transferring from a two-year to a four-year institution. Students in the program reported an increase in their sense of community, while further findings revealed the importance of peer connections, faculty mentors, and structured campus involvement in fostering belonging [21]. These findings align with a broader body of research suggesting that a student’s sense of belonging is closely associated with persistence, especially during times of transition [22]. Similarly, support programs such as PRIMER can help foster a sense of community for URTSs. For instance, participants in our study were engaged in a structured pathway program that includes access to service activities and cohort learning models, among others. Participants D and E both mentioned the increased sense of community they experienced upon their transition to the two-year institution (Table 2).

Additionally, limited academic support, which can contribute to students seeking different educational environments [5], was the other most frequently mentioned challenge in our results (Figure 2). Prior research suggests engagement in Educationally Purposeful Activities (EPAs), activities predictive of a higher Grade Point Average (GPA), has been linked with stronger

academic outcomes for transfer students. Because GPA is linked to degree persistence in transfer literature, these findings suggest that EPAs may be relevant for supporting transfer students' academic trajectories [23]. These findings have relevance in the context of this study, where participants were enrolled in a PLE incorporating peer-led tutoring, an activity identified as having the most significant impact on transfer students. It is also helpful to investigate the effects of other peer-instructional activities that were not analyzed in prior EPA literature, such as those relating to peer-led mentoring programs and organizations. Both peer-related activities are encompassed by a PLE and were offered to participants in this study; all participants took part in at least one. Participant C highlighted the significance of having a common goal with their peers (Table 2). Peer-related activities could be significant for fostering a sense of community among students.

One aspect of this study focused on factors affecting the degree completion of URTSs. Our results suggested that supportive environments that foster a greater sense of belonging, as well as PLEs, may have impacts on academic outcomes. Addressing RQ1, URTSs described four major factors that influenced their persistence: lack of academic support, lack of community, financial constraints, and major selection challenges (Figure 2).

Another focus of this study was on students' sense of belonging and how it impacted their persistence. Addressing RQ2, participants described experiencing an increased sense of belonging during their time at the two-year institution, where they were engaged in a PLE. Although participants did not always isolate specific program components, their accounts consistently linked the structured academic and peer environment to feelings of support and inclusion. In the seventh interview, where additional prompts more explicitly explored programmatic experiences, the participant identified specific PLE activities—such as cohort learning and advising—as meaningful contributors to both their sense of belonging and their post-transfer persistence. Consistent with Tinto's theory of student departure, belonging appeared to function as a mechanism through which structured engagement supported continued enrollment and degree attainment. Furthermore, the seventh participant attributed a post-transfer employment opportunity to a PLE-specific resource, suggesting that the influence of belonging extended beyond persistence to longer-term academic and professional outcomes. Additionally, considering that five of the six students stated they would retroactively have attended the two-year institution, this may indicate that participants perceived the two-year PLE environment as aligned with their academic goals, which connects to RQ2's belonging construct.

As detailed earlier, one of the four pillars of Schlossberg's transition theory is support. Support includes close relationships such as institutional resources and peers. Access to reliable support is critical for helping students navigate and adapt during transitional periods. Accordingly, Participant G described how dependable the community they became a part of was, even underlining confidence in the fact they could continue to rely on Wilbur Wright College faculty even upon RRT. This support is often crucial for allowing individuals to overcome the several challenges faced during transition periods [9]. Through the seventh case study, an emerging theme, confidence, was uncovered. The participant detailed the feeling that they were able to build the resilience needed to persist in achieving their goals. More specifically, Participant G reflected on their confidence as it related to academics. However, after participating in PLE

programs, such as an academic preparation program, the participant expressed feeling comfortable and confident when engaging in upper-level coursework upon RRT.

The opportunity to apply for a fellowship related to their field of study catalyzed the seventh participant's professional career; upon RRT, they received a return offer and continued to excel. Participant G's testimony provided insight into the potential longitudinal outcomes of PLE initiatives at two-year community colleges. Their account emphasized the beneficial outcomes resulting from the extensive support they received, effectively contributing to their experience even after their RRT. The participant expressed having support from the PLE, which they did not have from family. This support was considered to be critical for allowing the student to thrive professionally and academically.

Through these seven case study interviews, participants perceived the major contributors of reverse transfer as relating to belonging and academic support, with financial factors and major selection as other contributors mentioned. The results demonstrated that a PLE may be beneficial for supporting URTSs' experiences both during their time at the two-year institution and during their return to the four-year institution.

V. Future Works

Future research on URTSs would benefit from larger and more diverse samples. Access to URTSs outside of a PLE would allow for a mixed-methods approach. With a larger sample size, researchers could incorporate a quantitative element with the use of surveys to assess sense of belonging and perceived academic support. Moreover, a larger sample would allow for a comparative element, where researchers could compare outcomes for URTSs in the PLE to those outside of it.

To expand on the current study, our additional research plans to utilize the initial six case-study participants by continuing to incorporate a longitudinal component. Following up with the initial participants (A-F) would provide insights into more long-term outcomes of the PLE they participated in, such as bachelor's degree attainment. This would not only expand on the current understanding of long-term outcomes from the seventh case study, but it would allow for comparison to the initial reports from students while they were at the two-year college, to their experience while they are back at the four-year institution.

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