

Life has a lot to do with it when it comes to community college women's transfer intent in STEM

In honor of the recent International Women's Day, we are putting a spotlight on one of our pieces that focuses specifically on women in STEM. Considering the persistent gender gap in STEM, community colleges have increasingly come up in conversations around how to expand and diversify the STEM pipeline to be more inclusive for women. Over half of women starting higher education are concentrated in community colleges, which therefore hold a potential talent pool from which future female scientists can be cultivated.

Yet, increasing the number of community college women embarking on the pathway toward a degree in STEM is a much more complex issue, especially considering the multiple roles and impactful experiences that women bring with them to college that shape their educational pathways. Taking this into account, we were curious to explore how such identities and experiences help mold women's intent to transfer in STEM.

Using survey and interview data from the Expanding STEM Talent Through Upward Transfer project (Wang, 2017), our study (Wickersham & Wang, 2016) delved into the narratives of two community college women beginning in STEM courses or programs at two-year colleges in a Midwest state. The interview was a primary source of data, and survey data offered a setting and description to frame these women's stories. Narrative inquiry helped us bring these women's roles and experiences to life, which we presented as a window into how their lives shaped and reshaped their educational plans around transfer in STEM.

Through this study, their stories revealed their roles and experiences as a parent, caretaker, employee, student with a disability, and so on, and how they had to reconcile and negotiate many of those roles as they weighed in on whether transfer could ultimately be a part of their realized educational plan. Our findings showed that, in some instances, women may be motivated enough to persist with their plans to transfer despite their multiple and challenging identities, as well as the experiences they encountered. In fact, one student used these roles, identities, and experiences as drivers to keep on her path to transfer in STEM. On the other hand, one of these women, through past and current experiences, along with coming into her own in terms of who she is as a person and what her broader goals were, decided that transfer was no longer part of her immediate plan.

Our study, through the stories of two women, highlighted the complex and changing lives and educational goals of community college women beginning in STEM. Based on what we learned, there are several takeaways for instructors, advisors, and other community college practitioners:

- Tailor services, spaces, and programs to the needs of women in STEM, as well as those outside of STEM. For instance, women may benefit from flexible service hours or course offerings, along with child care options.
- Reframe community college women's identities and experiences away from challenges or deficits and instead work with these students to help them see and use these complex dynamics as strengths to succeed in their programs. For example, with students with ADD, advisors can work with them to tap into and advocate for any strategies that may help these students in their classes. Instructors can encourage and support such strategies in the classroom.

- Advisors need to acknowledge and support the potentially changing educational goals of community college women and help them get on their desired pathway to ensure a smooth and efficient transition into the new field of study. This is especially critical for women, as they tend to be negotiating competing responsibilities, making support and efficiency key to their success as they navigate higher education.

Our society needs the strengths, abilities, problem-solving strategies, and innovative solutions that women can uniquely bring to the table in STEM careers (Corbett & Hill, 2015). Providing support structures that address women's unique barriers to success in higher education as they pursue these careers is critical. Life indeed has a lot to do with it. International Women's Day provides an opportunity to focus on this goal, and this study highlights some of the concrete ways colleges can contribute to women's success.

#### References and works cited:

Corbett, C., & Hill, C. (2015). *Solving the equation: The variables for women's success in engineering and computing*. Washington, DC: American Association of University Women.

Wang, X. (2017). Upward transfer in STEM fields of study: A new conceptual framework and survey instrument for institutional research. *New Directions for Institutional Research*, 2017(170), 49-60.

Wickersham, K., & Wang, X. (2016). What's life got to do with it? The role of life experiences in shaping female community college students' transfer intent in STEM fields of study. *Community College Journal of Research and Practice*, 40(12), 1001-1012.