

Capstone Project – Topic Summary

Maia Almeida, Diane Saraceni, Shannon Usher

College of Professional Studies, Northeastern University

EDU6222: Contemporary Issues Capstone

Dr. Morris

January 22, 2023

Topic Summary

This group will explore retention rates and of transgender and gender nonconforming students in science, technology, engineering, and mathematics (STEM) education. This is important for higher education in several ways. Institutions need to report retention rates; low retention rates indicate an issue with the institution or specific student demographic. Retention rates then affect graduation rates, which is another reported metric. If the retention rate is low, the graduation rate will also be low. Prospective students and their families review these two metrics when researching and applying to selected institutions. Retention rates with transgender and gender nonconforming students in STEM are a problem because the retention rate is approximately 10% lower than that of their cisgender peer students (Maloy et al., 2022).

We have discussed interviewing a director or assistant director at the NU LGBTQA Resource Center. This would allow us to access more data for our project and receive feedback from them on our expected project, and how they can leverage the project with their Trans@NU program. There are still so many unanswered questions regarding LGBTQ students, it's important to have more conversations and talk to more students and administrators about these topics (Legg, 2020).

Articulation of why this is a contemporary issue

Most research has been conducted on understanding the female experience in STEM fields. Research on the LGBTQ+ experience, specifically on transgender and gender nonconforming experiences, is an emerging and contemporary field of research. There is significant data proving lower retention rates for these students who are enrolled in these programs. Understanding the root cause of this lower retention rate requires more thorough

research. Initial findings suggest that transgender and gender nonconforming STEM students experience with extensive discrimination and harassment and mental health challenges: STEM students who identify as transgender or gender nonconforming have reported bullying, microaggressions, unfavorable campus climates, and trouble locating peer groups that provide support (Maloy et al., 2022). Although 71% of students say they struggle with mental health issues, these issues are higher among transgender and gender non-conforming students – being around 90% (Alonso, 2023). These reasons can cause this student population to withdraw or transfer to another institution.

Retention rates of transgender and gender nonconforming students further affect the diversity of STEM fields; if transgender and gender nonconforming students are not remaining in a program to receive their degree, they therefore do not enter the workforce. It is estimated that that LGBTQ+ people are 17–21% less represented in STEM fields than expected. Specifically in higher education, 69% of queer faculty in STEM fields report that their departments are uncomfortable places to work (Freeman, 2018). The higher education space needs to adapt their priorities to align with the health, safety, and well-being of transgender and gender nonconforming students to increase retention rates and create welcoming spaces for LGBTQ+ students and faculty alike.

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