TRANSFORMATIONAL CHANGE IN RESPONSE TO COVID-19

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THE ISSUE

With the sudden onset of the COVID-19 pandemic in the U.S. in March 2020, and all the college's instruction, academic and student support services, and administrative services making rapid transitions to virtual/online platforms, the college was concerned that equity gaps—specifically, higher rates of withdrawal and lower rates of success among students of color and federal Pell grant recipients (a proxy for income) as compared to majority students—could grow wider. This research project aimed to capture the disruptive changes in policy, instruction and assessment, and academic and student support processes and practice—as well as the associated perceptions of faculty, staff, and students—in order to compare how those changes may or may not have affected equity gaps at the college. This brief summarizes the key findings from year one of the research study, detailed in an accompanying report, and can be used to advance student success going forward.

RESEARCH QUESTIONS

The study was guided by the following overarching research questions:

1. In what ways did the COVID-19 pandemic catalyze transformational change at Wake Tech?
2. How did college stakeholders (students, faculty, staff/administrators) view these changes? How did perspectives compare among stakeholder groups?

3. Is there an association between institutional changes and significantly different success[1] and withdrawal rates[2] compared to prior to COVID-19?
4. Is there an association between institutional changes and widened or narrowed equity gaps in student success and withdrawal rates, particularly for students of color and those with low incomes?

DATA AND METHODS

Both qualitative and quantitative data were collected and analyzed independently and then compared to gain a more complete understanding of how sudden changes in instruction and services due to COVID-19 may have affected equity gaps at the college. Qualitative data collection included focus groups, interviews, and open-ended survey questions. Quantitative data analysis included descriptive statistics of survey responses and course enrollment, as well as conducting a quasi-experimental study using Propensity Score Matching (PSM) statistical techniques to assess the impact of COVID-19. Using administrative data sets from Spring 2019, Fall 2019, Spring 2020, Fall 2020, and Spring 2021, student success and retention were compared by gender, race-ethnicity, and Pell Grant status.

KEY FINDINGS

- **Key College Challenges** to overcome to transition to fully online service delivery:
  (a) Using new systems for making appointments
  (b) Using video conferencing platforms for meetings and classes
  (c) Quickly scaling up online service delivery to meet the demand
  (d) Converting seated courses to fully online in a matter of two weeks, but especially hard for the health sciences, trades, and Workforce Continuing Education

[1] Success Rate: Percentage of A, B, C, S, and P grades out of all grades including withdrawals but excluding AU, X, SR, and NA.
[2] Withdrawal Rate: Percentage of W, WP, WE (special COVID-19 withdrawal grade), and WF grades out of all grades excluding AU, X, SR, and NA.

(e) Engaging students in courses that converted from seated to online, as engagement was perceived to have dropped

(f) Significantly expanded workload for faculty following the transition to online instruction (due to rapid course redesigns, increased communication with students and expanded number of sections to teach in lab and clinical courses) and associated mental and physical toll

(g) Faculty, staff, and students experienced similar and numerous challenges when working and learning during the pandemic: abrupt and ongoing challenges with childcare, managing virtual learning for their children, changes in work schedules, financial issues, lack of motivation, and increased stress and anxiety, overall.

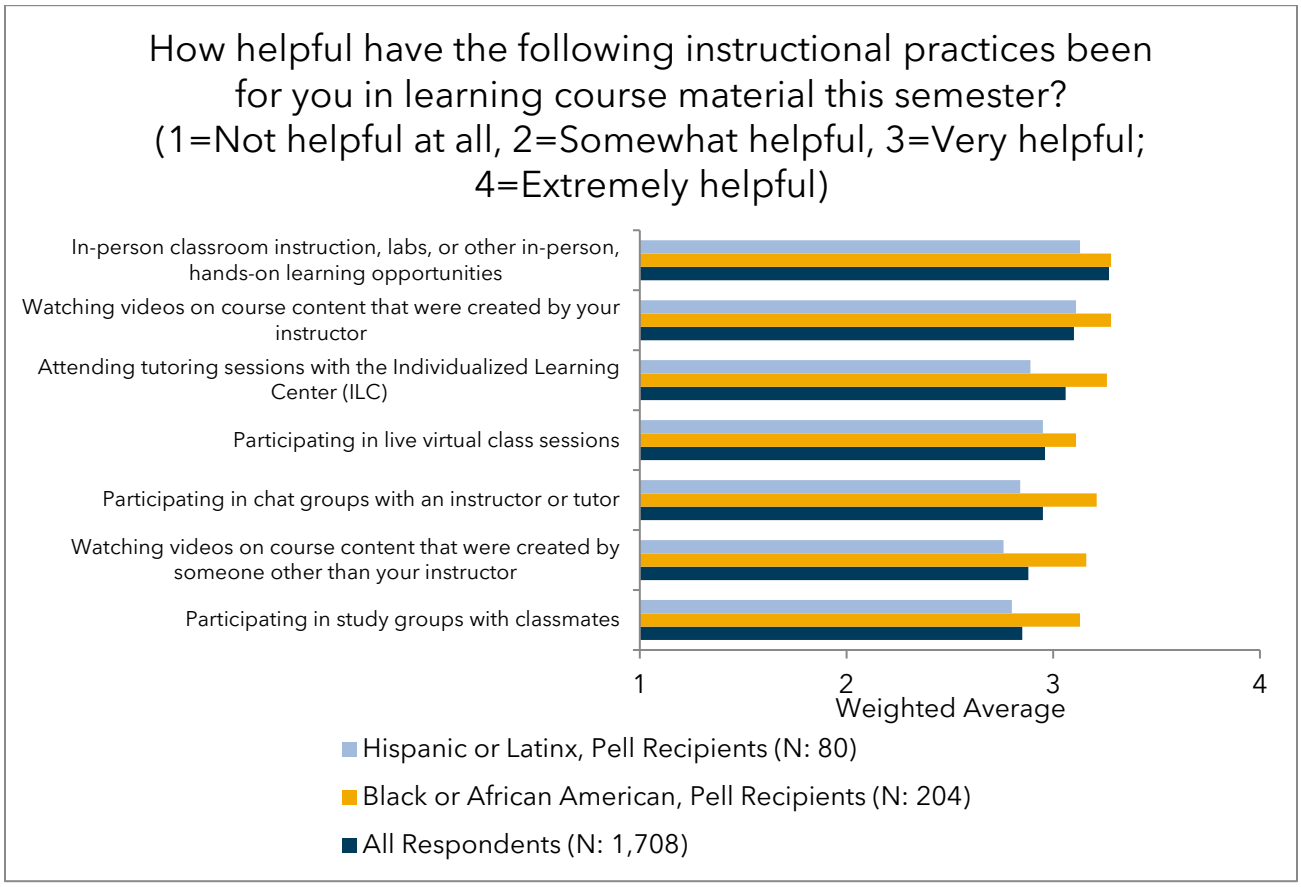
- **Key College Solutions/Changes** to prevent attrition and reduce COVID-19 impacts on student access and success:
    - **Laptops:** Providing laptops to students who did not have computer access (either via the free laptop distribution or loaning laptops through the college libraries)
    - **Gift cards:** Providing grocery store gift cards for students in need of food assistance
    - **Expanded hours of virtual service availability** (e.g., tutoring, academic advising, financial aid advising, etc.) to meet the needs of students who work or have other obligations during typical work hours (Monday-Friday, 9am-5pm)
    - **One-stop Answer Center and coordinated academic and non-academic support services** (Student Experience Program) that streamlined answers to student questions and referrals to specific supports/services
    - **More flexible course attendance policies**
    - **More flexible course due dates and late work policies**

- **Different course assessments:** different assignments, quizzes, or tests than originally planned
- **Increased communication with students:** frequency of contact with students changed, and tended to increase, due to virtual office hours and more widespread use of messaging via Microsoft Teams
- **Increased use of MS Teams and videos in courses.**

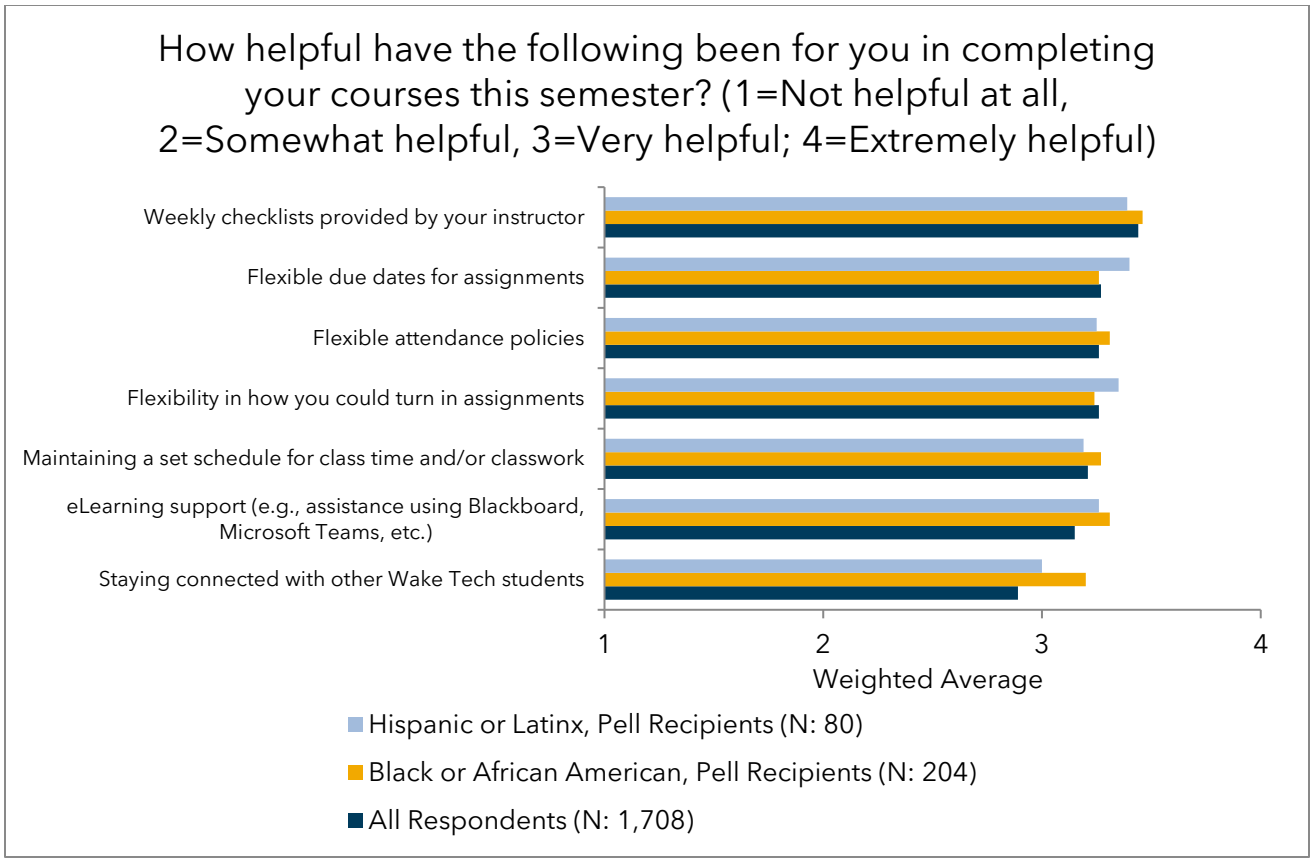
- **Key College Shifts in Attitudes:**
  - **Technology adoption:** The pandemic sped up planned implementation and adoption of new technologies and allowed faculty and staff to experience the benefits of conducting classes and operations online beyond physical campuses.
  - **Assumptions about remote instruction:** While faculty experienced in teaching online expressed gratitude about being prepared in advance through EPIC (eLearning Preparedness Initiative across the College) certification, many faculty who had not taught online embraced online learning during the pandemic.
  - **"No going back":** As we transition out of the pandemic, the prevalent attitude among faculty and staff is that we have changed for the better, with a desire to keep many of the innovations put into place during the pandemic. Assumptions about online learning, for those who rapidly transitioned, changed toward acceptance and finding benefits.

- **Student Perceptions of Most Helpful Practices**
  - **Top course practices that helped students learn**, especially Black/African American Pell recipients:
    - In-person classroom instruction, labs, or other in-person, hands-on learning opportunities

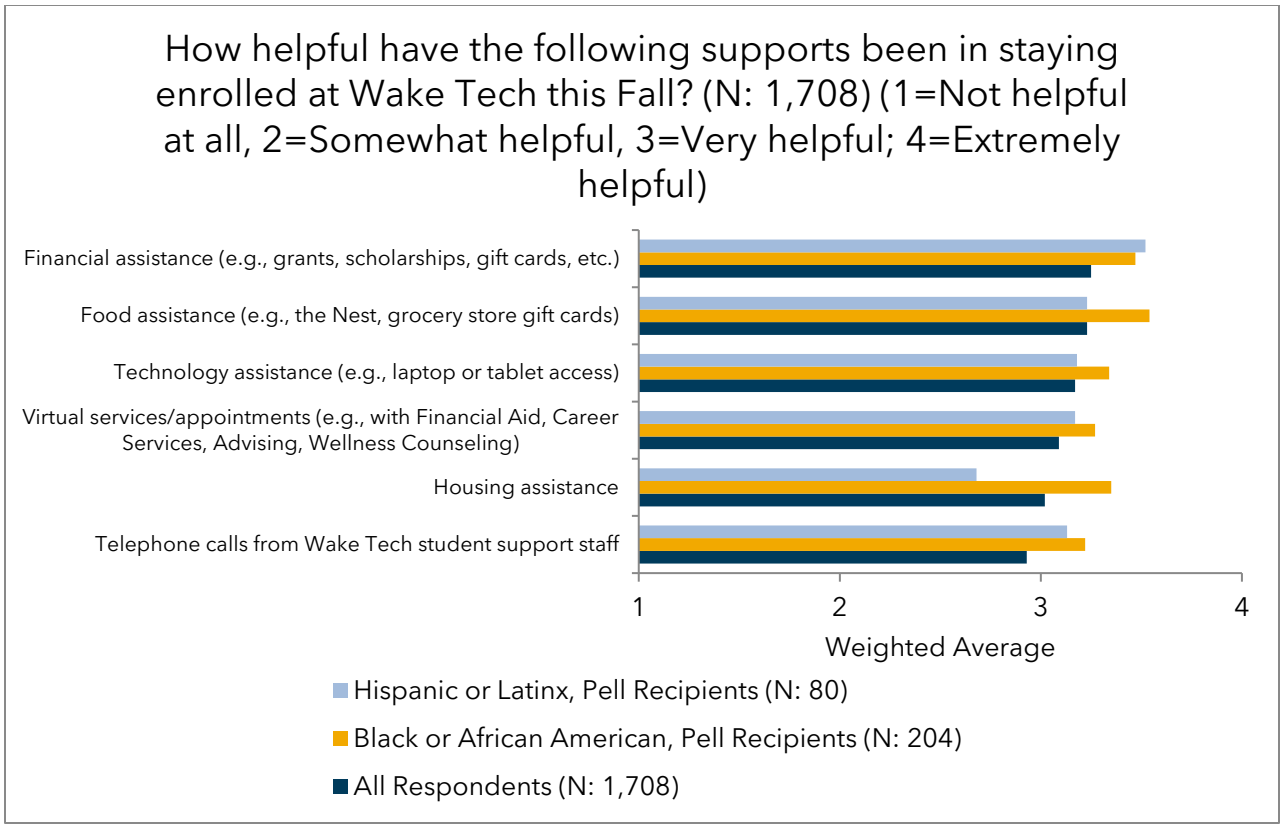
- Watching videos on course content that were created by students' instructor
- Attending tutoring sessions with the Individualized Learning Center (ILC)



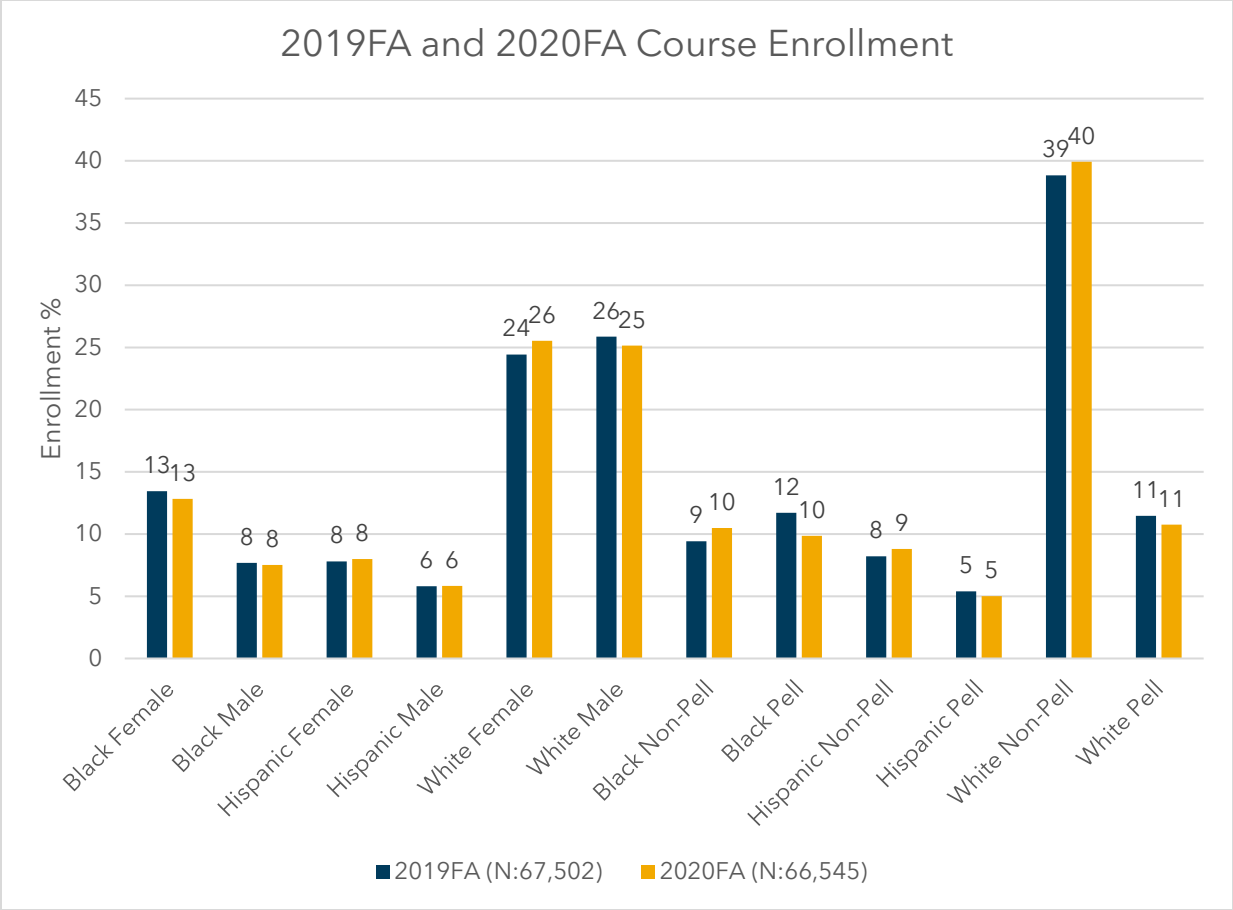
- **Top course practices that helped students complete their courses**:
  - Weekly checklists provided by students' instructor
  - Flexible due dates for assignments
  - Flexible attendance policies
  - Flexibility in how students could turn in assignments

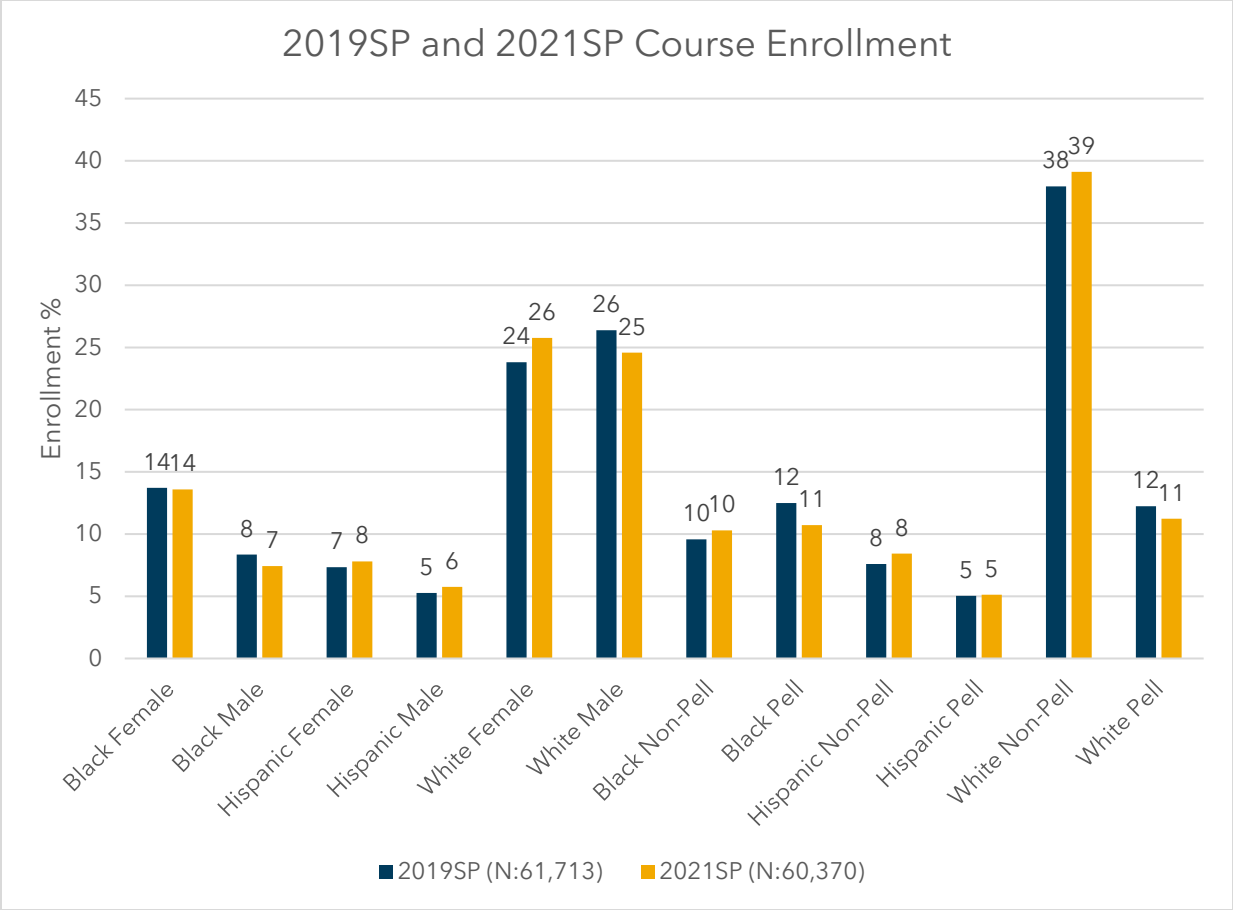


- **Top supports that helped students stay enrolled at the college,** especially Black/African American Pell recipients:
  - Financial assistance (e.g., grants, scholarships, gift cards, etc.) (also particularly helpful for Hispanic/Latinx Pell recipients)
  - Food assistance (e.g., the Nest [college's food bank], grocery store gift cards)
  - Technology assistance (e.g., laptop or tablet access).

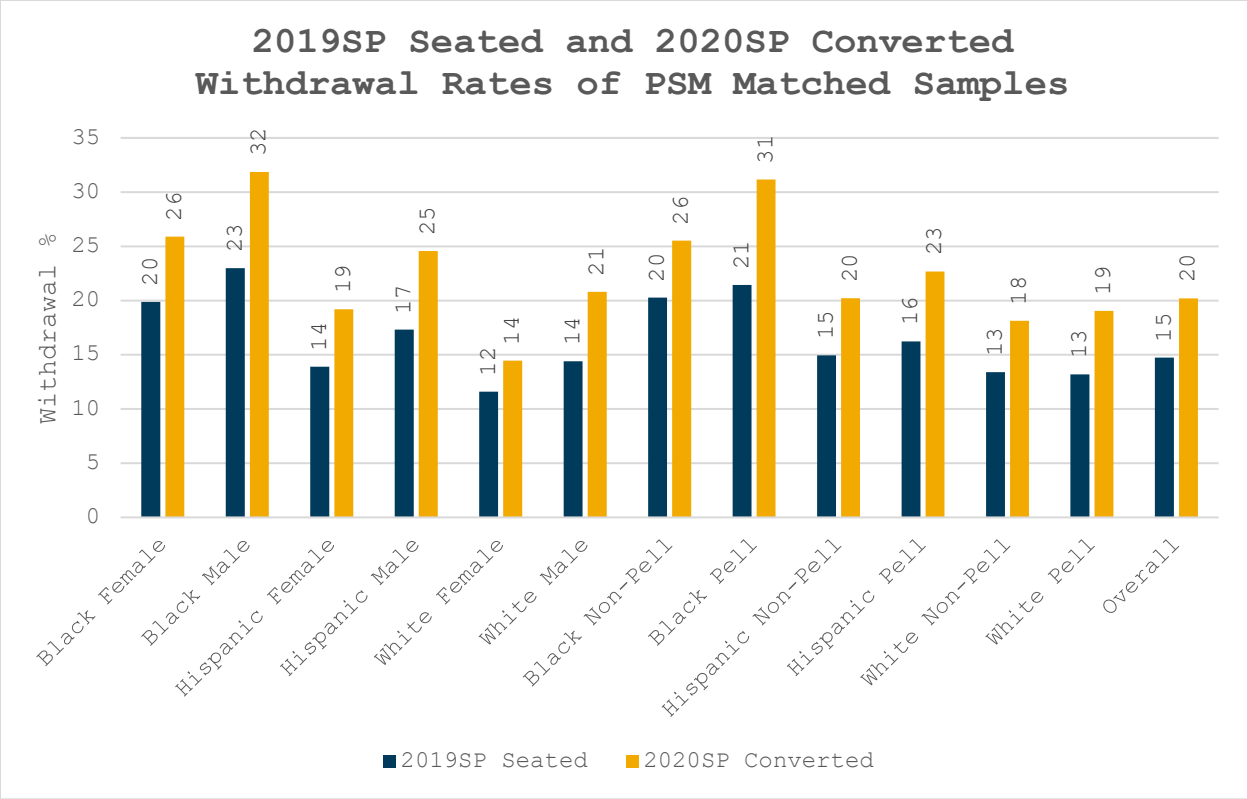


- **Course Enrollment**
  - Even with the more limited course offerings during the pandemic, there were not drastic declines in overall enrollment (seats) or major shifts in the demographic composition of the course seats when comparing Fall 2020 to Fall 2019 and Spring 2021 to Spring 2019.
  - In Fall 2020, nearly all of the demographic proportions by race-ethnicity/gender and race-ethnicity/Pell status remained consistent with Fall 2019; the most notable difference was a two-percentage-point gain for Black/African American Non-Pell students and a two-percentage-point drop for Black/African American Pell students.
  - Spring 2021 showed a net loss of male students and Pell recipients, although demographics proportions by race-ethnicity/gender and race-ethnicity/Pell status remained relatively consistent to Spring 2019, overall.

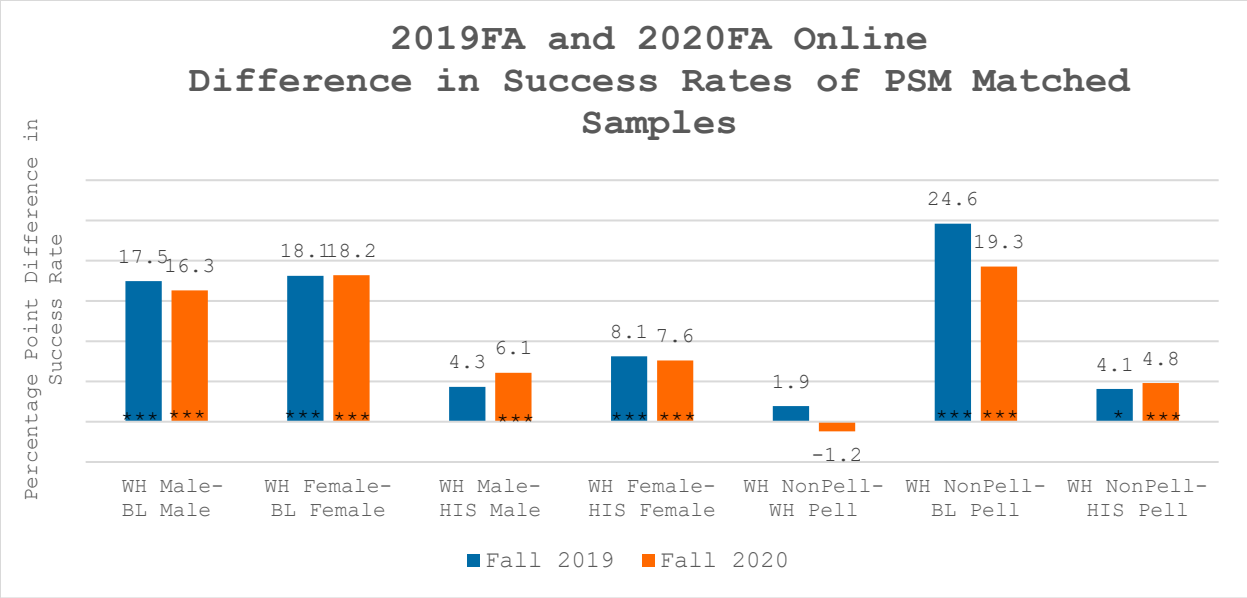

2019FA and 2020FA Course Enrollment
Enrollment %
45
40
35
30
25
20
15
10
5
0
13 13
8 8
8 8
6 6
24 26
26 25
9 10
12 10
8 9
5 5
39 40
11 11
Black Female
Black Male
Hispanic Female
Hispanic Male
White Female
White Male
Black Non-Pell
Black Pell
Hispanic Non-Pell
Hispanic Pell
White Non-Pell
White Pell
2019FA (N:67,502)
2020FA (N:66,545)

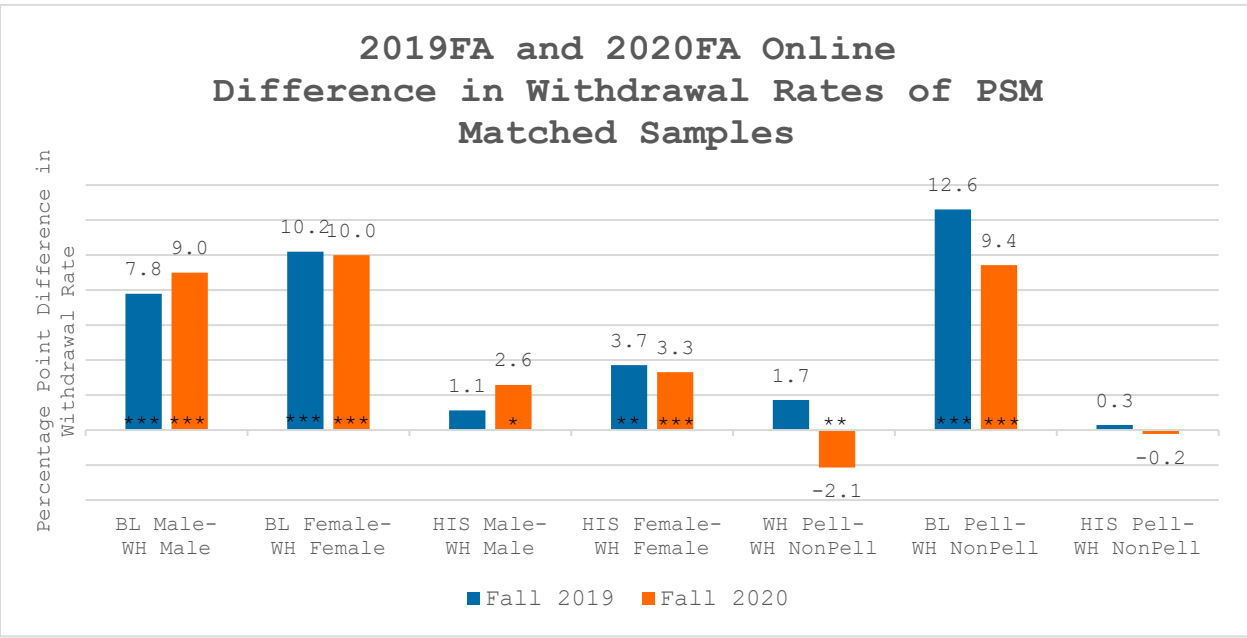


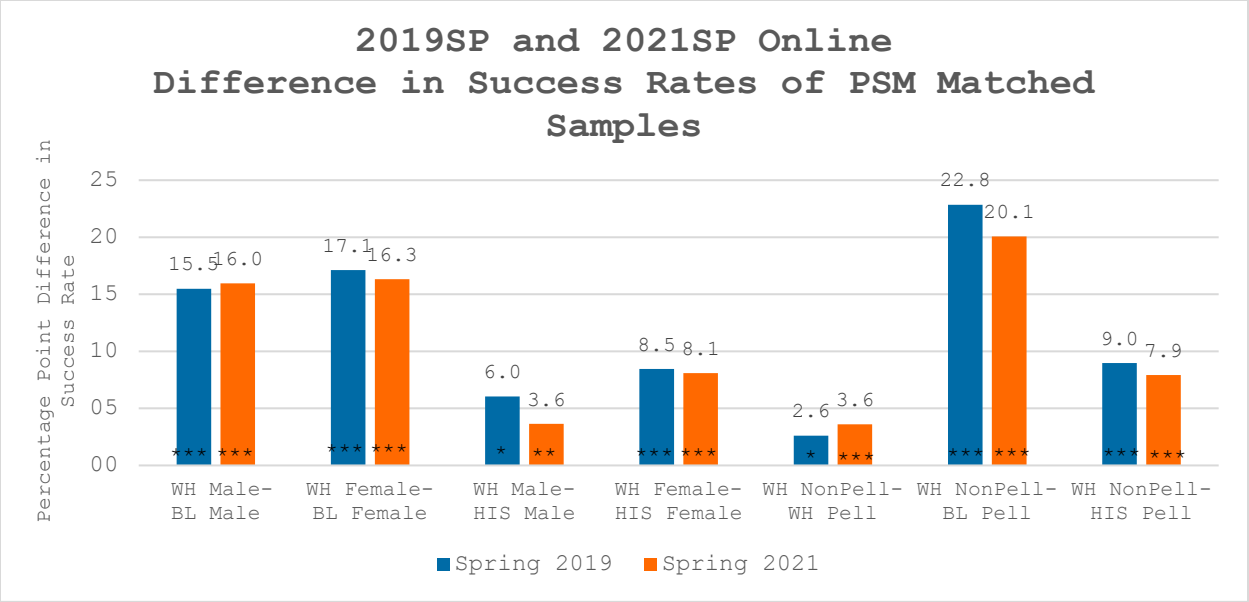
- **Student Course Performance**
  - **Courses converted from seated to online in Spring 2020:** Compared to Spring 2019 (and controlling for student characteristics), the one significant change in course success rates was a decrease for Black/African American Pell Grant recipients; a precipitous increase in withdrawal rates occurred across all demographic groups in courses that converted from seated to online delivery, especially for Black/African American males and Black/African American Pell Grant recipients.

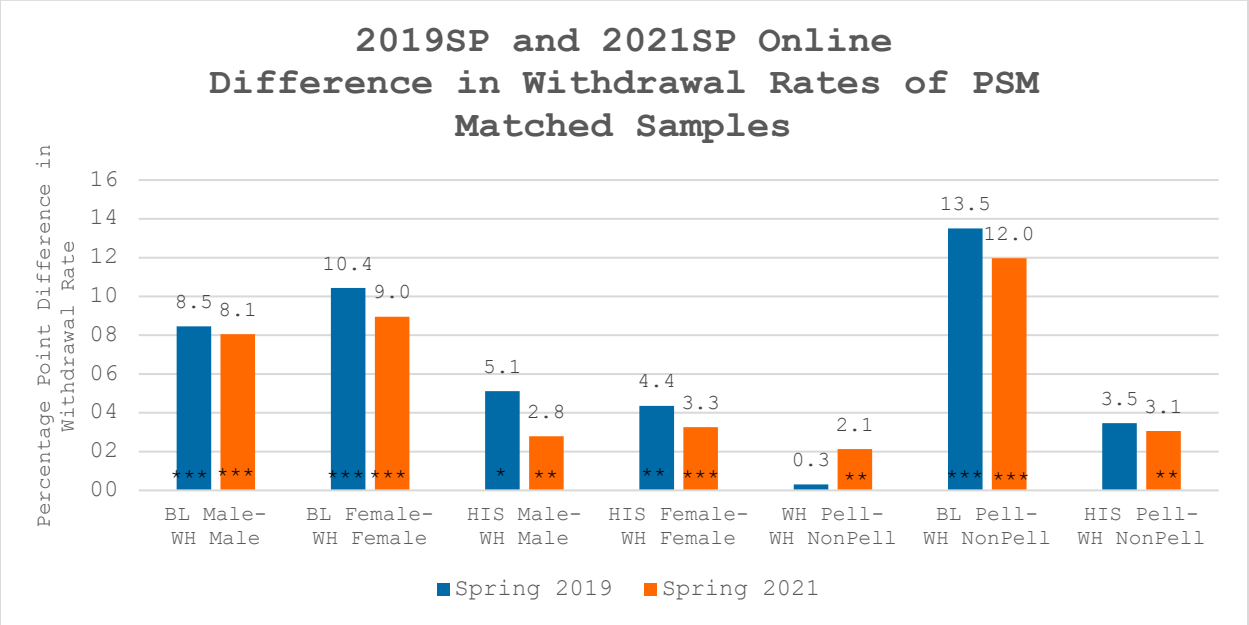


- **Online courses in Fall 2020, Spring 2021 (compared to pre-pandemic):** Across all demographic groups, withdrawal rates decreased and success rates increased in online courses.
- **Overall, rather than widening, equity gaps** in performance between most majority and minority subgroups **actually narrowed** in the semesters during the pandemic compared to semesters before the pandemic, particularly between White/Caucasian Pell non-recipients and Black/African American Pell recipients. Notable increases occurred in the following:
    - success rate gap between White/Caucasian males and Hispanic/Latinx males in Fall 2020
    - withdrawal rate gap between White/Caucasian males and Black/African American males in Fall 2020
    - withdrawal rate gap between White/Caucasian males and Hispanic/Latinx males in Fall 2020.


2019FA and 2020FA Online
Difference in Success Rates of PSM Matched Samples
Percentage Point Difference in Success Rate
17.5
16.3
18.1
18.2
4.3
6.1
8.1
7.6
1.9
-1.2
24.6
19.3
4.1
4.8
WH Male-BL Male
WH Female-BL Female
WH Male-HIS Male
WH Female-HIS Female
WH NonPell-WH Pell
WH NonPell-BL Pell
WH NonPell-HIS Pell
Fall 2019
Fall 2020


2019FA and 2020FA Online
Difference in Withdrawal Rates of PSM Matched Samples
Percentage Point Difference in Withdrawal Rate
7.8
9.0
10.2
10.0
1.1
2.6
3.7
3.3
1.7
-2.1
12.6
9.4
0.3
-0.2
BL Male-WH Male
BL Female-WH Female
HIS Male-WH Male
HIS Female-WH Female
WH Pell-WH NonPell
BL Pell-WH NonPell
HIS Pell-WH NonPell
Fall 2019
Fall 2020





CONCLUSION

Qualitative feedback from students, faculty, staff, and administrators indicated consensus in the belief that necessary changes were made and additional supports and resources were provided in an intentional effort to circumvent the pandemic's potential impact on access and outcomes for the college's most vulnerable students. Findings from the statistical analyses offer an early indicator that these efforts helped to mitigate the impact on equitable access and equitable outcomes for the students

who were enrolled at Wake Tech during the pandemic. With plans for many of the major developments implemented during the pandemic, such as virtual service delivery, expanded service hours, and high-flex classrooms, to continue past the pandemic and indefinitely, it will be important to continue to monitor changes in equity gaps. Should these changes and innovations—as well as attitudes that embrace student-centered approaches to instruction and service delivery—continue to be associated with narrowing equity gaps, it will become clearer the extent to which responses to the COVID-19 pandemic ultimately resulted in transformational change at the college.