

## **Effect of Online Learning on Transfer Student Success**

*Matthew Metzgar\**

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### **Abstract:**

**Introduction:** Online learning increased rapidly during the 2020 school year due to COVID-19. While online learning was perhaps the only realistic response to the health crisis, students differ in terms of their success with online learning. One particular group which may be vulnerable to problems with online learning is transfer students. Transfer students may be coming from smaller, in-person classes and are now put into fully online environments. This paper studies the performance of transfer students in online classes versus in-person classes.

**Methods:** This study compares the success of transfer students for an in-person semester to an online semester. A simple statistical test was performed to compare results for transfer students to control students.

**Results:** Transfer students appear to be performing worse than control students in the fully online learning environment.

**Discussion:** There may be a variety of reasons for the poorer performance of transfer students. They may be switching from smaller, in-person learning environments to more impersonal online environments.

**Limitations:** Pre-existing differences in individual students could not be controlled for.

**Conclusion:** These results suggest that transfer students may not be adapting to fully online learning as well as control students. Further research is needed to clarify this.

**Key words:** online learning, transfer students, economics.

### **Introduction**

With the spread of COVID-19 in 2020, most Universities shifted to fully online learning. This shift will have a variety of different effects, which will take many years to explore fully. One potential area of interest is its impact on transfer students. This study will empirically compare the performance of transfer students before and after the change to online learning. The study explores some

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\* Matthew Metzgar, UNC Charlotte, Belk College of Business, Charlotte, USA; [mmetzgar@uncc.edu](mailto:mmetzgar@uncc.edu)

of the switch's implications and the social environment on campus during the pandemic.

School transfers are by all accounts becoming more common in the COVID-19 era. There are a few reasons for this. Many students are now unable to attend the school of their choice and prefer to stay closer to home. Travel now increases health risks, and so this plays a factor as well.

However, not all of the changes for transfer students are negative from their perspective. With fewer out-of-state enrollments and a far smaller number of international students entering the country, some institutions are less picky in accepting transfer students than they used to be. The result is that some institutions are more motivated to enroll new students.

A recent Inside Higher Ed survey found that 9 in 10 college enrollment officers were either very concerned or somewhat concerned about enrollment numbers this past fall. Therefore, the same poll found that 78% of colleges were looking to actively increase the number of transfer students they recruit for the Fall 2020 semester (Lederman, 2020).

The author is employed at a large Southern U.S. University that typically accepts many transfer students. The author typically teaches several large sections of Managerial Economics, a junior-level course. The author has previously found that transfer students usually perform as well as students who started at the university as freshmen. According to the Higher Ed Survey, most administrators agree with this assessment (Lederman, 2020).

However, the onset of Covid-19 shifts the playing field in numerous ways. With the movement to online learning, many elements in the learning environment have changed. The terms for acceptance have changed, and so has the social and pedagogical setting. Faculty may have to provide additional leadership to provide all students with the opportunity for academic success (Žydžiūnaitė, 2018).

The new environment has also changed the playing field in regard to transfer students specifically. As we have discussed, it allows students who may previously have had difficulty gaining acceptance into the institution a chance to enroll. If the student pool has changed significantly, the same may be true for their academic performance.

Therefore, the author wanted to test whether transfer students are still performing and continuing students in an online environment.

If results are unequal, it may suggest transfer students have additional academic needs in a fully online environment. To provide students with the help they need, we must analyze COVID-19 related data quickly and draw meaningful policy conclusions shortly. This study aims to assist with that goal.

## **1 Literature review**

We do not yet have a significant amount of study on the influence of COVID-19 on students' performance, whether transfer or otherwise. However, there is already some high-quality research on the topic. One study has reached the counterintuitive conclusion that students fare better during the COVID-19 lockdowns than they did before (Gonzalez & de la Rubia, 2020).

However, we can contrast this with the way students perceive their experience of the pandemic. Almost all students report higher levels of anxiety, stress, and depression. Also, most believe that they perform more poorly in the academic field, even when this is not empirically borne out (Aristovnik et al., 2020).

Therefore, the overall trend of the limited literature on the topic of student performance during the pandemic paints a picture of lower mental health but not necessarily lower performance. These surprising findings can be explained by the surplus of time students now have to study and focus on their education. Many students are also unemployed or forced to work less, and therefore have more time to learn (Aucejo et al., 2020). This brings academic self-discipline into play, which has been shown to affect transfer and retention (Allen et al., 2008).

However, as always, socioeconomic differences and race play a significant role in the performance of students, and this may be especially the case for transfer students (Graham & Hughes, 1994). The lockdown seems to have hurt students with limited economic means in several unfortunate ways. One study shows that students from more affluent families can study 4 hours more a week on average than before the pandemic's influence. Meanwhile, families with fewer means have had to cut study time by 5 hours on average (Gonzalez & de la Rubia, 2020). It would be no surprise if these differences had a detrimental influence on academic performance.

While we are in the early stages of researching the influence of COVID-19 on students, there is a large amount of literature on transfer students' academic performance in general. Some studies show that transfer students initially suffer from 'transfer shock' and suffer lower grades (Glass & Harrington, 2002). Other research shows the importance of social on-campus connections for incoming transfer students, which of course would be weakened by fully online learning (Townsend & Wilson, 2009).

However, not all studies find significant 'transfer shock.' Some studies have even shown a temporary increase in grades. The term 'transfer ecstasy' has been coined to capture this phenomenon (Laanan, 2001). In fact, they reliably attain significantly higher grades in some disciplines than they did in their previous schools. However, business students do achieve lower grades on average upon transferring (Cejda, 1997). Therefore, there is reason to believe that the students taking part in this study may perform at a lower level than their equivalents in other fields.

Duggan and Pickering (2008) showed that barriers to success depended on the student's level (freshman, sophomore, junior/senior). The further along students are when they transfer, the more likely they are to stay and graduate and get good grades (House, 1989). Retention is significantly higher when students move from a community college to a 4-year university after completing their Associate of Arts degree (Best, 1993). Indeed, most researchers in the field agree that community college transfers can succeed in 4-year universities but only if they have high GPA's and have qualified for an Associate's degree (Best, 1993; Duggan & Pickering 2008; Glass & Harrington 2002; Zhai & Newcomb, 2000). These findings are very well-known, and schools take them into account when admitting students from community colleges.

These facts lead to some unintentional preference for more affluent community college students and discrimination against minorities. Socioeconomic and racial factors play a significant role in determining who transfers, where they transfer to, and how they fare once they get there. The students who manage to transfer from community colleges are often of higher socioeconomic status than the school's average student. Also, minorities are often underrepresented among transfers (Goldrick-Rab & Pfeffer, 2009).

If so, the overall assumptions of the existing literature are that transfer student will do roughly as well as their continuing equivalents. While there may be some 'transfer shock,' it is expected to wear off soon. In terms of COVID-19, the small amount of research done suggests that while students suffer mentally and socially, their academic performance has improved during the pandemic.

Income levels, which may defer between transfer students and continuing students, can have a critical impact on academic success as well. COVID-19 may have exacerbated income differentials among students. Research shows lower-income levels has negatively affected student learning during COVID-19 (Rodríguez-Planas, 2021). However, a different study shows no difference in midterm grades among transfer students (Selsby & Bundy, 2021). Another recent study shows no negative effect of COVID-19 on low-income, first-generation college students (Engelhardt, Johnson, & Meder, 2021).

## **2 Analysis**

The research questions ask whether transfer students will be as successful as continuing students for regular, in-person classes and fully online classes. Therefore, the formal hypothesis for this study is as follows.

Hypothesis H0: Transfer students will perform as well as continuing students in the Managerial Economics class in both in-person classes and fully online classes.

During Spring 2020, the author's university switched to fully online learning during the middle of the semester. Therefore, this semester would not be appropriate to test. By Fall 2020, the university informed students in advance

that the course they were registering for would be 100% online for the entire semester. The Fall 2020 semester then serves as the test condition.

The control condition will be the Fall 2019 semester. During each semester, the author taught three large sections (total ~ 300 students) each semester. Lecturers taught the Fall 2019 semester in-person two days per week. Meanwhile, staff taught the Fall 2020 semester two days per week but entirely online.

There was no apparent difference in student characteristics from the Fall 2019 semester group to the Fall 2020 semester group. Therefore, this analysis focuses on any differences between transfer and continuing students when switching to a fully online environment. This could be thought of as an exploratory study, as potential differences in student populations were not controlled for directly.

### 3 Results

The summary statistics are presented in Table 1 below. The results are pooled for three sections taught each semester.

The Fall 2019 sections were taught in-person, while the Fall 2020 sections were taught entirely online.

Table 1

*Summary statistics*

| <u>Student Type</u> | <u>Fall 2019 –<br/>Number of<br/>Students</u> | <u>Fall 2019 –<br/>Final Course<br/>Average</u> | <u>Fall 2020 –<br/>Number of<br/>Students</u> | <u>Fall 2020 –<br/>Final Course<br/>Average</u> |
|---------------------|---|---|---|---|
| Continuing          | 216   | 85.62   | 214   | 86.43   |
| Transfer            | 90  | 85.23   | 83  | 81.27   |

The results show a clear difference between the outcomes for the Fall 2020 semester.

Two separate regression analyses were then performed. The first regression tested whether there was a difference in outcomes for the Fall 2019 semester by student type. The second regression was conducted in the same way for the Fall 2020 semester.

A dummy variable was used to represent Transfer versus Continuing status. The results are presented below in Table 2 and Table 3.

Table 2

*Fall 2019 results*

|   | <u>Coefficients</u> | <u>Standard Error</u> | <u>t Stat</u> |
|---|---------------------|-----------------------|---------------|
| Intercept                               | 85.73               | 0.67                  | 94.71         |
| Transfer (Transfer = 1, Continuing = 0) | -0.39               | 1.62                  | -0.90         |

For the Fall 2019 data, the Transfer variable is not significant. There is no significant difference between the outcomes of continuing students and transfer students.

Table 3

*Fall 2020 results*

|   | <u>Coefficients</u> | <u>Standard Error</u> | <u>t Stat</u> |
|---|---------------------|-----------------------|---------------|
| Intercept                               | 86.42               | 0.94                  | 91.18         |
| Transfer (Transfer = 1, Continuing = 0) | -5.19               | 1.78                  | -2.90         |

For the Fall 2020 data, the Transfer variable is statistically significant. This data shows a substantial difference between the outcomes of continuing students and transfer students. This simple test is to be interpreted as a starting point for future analysis. There appears to lower performance by transfer students with the switch to a fully online learning environment. Potential reasons for this are discussed below.

#### **4 Discussion**

The data show that transfer students are not performing as well as they have in the past. The results imply that they are experiencing a more difficult adjustment to COVID-19 than their continuing student peers. While this finding does not necessarily negate results that students perform better academically during the pandemic, it shows us that we should treat these findings with caution. Some students may be doing better, but who and why?

One potential explanation for the difference between Fall 2019 and Fall 2020 is that 4-year universities in 2020 could not be as selective as they once were. With schools showing a willingness to enroll students they may have rejected before, this may lead to lower performance levels.

In the past, they could select only the most promising local applicants, particularly those who had received high grades and had received their Associate of Arts degree. They could then make up for the shortfall by admitting out of state and international students.

Class and race may be playing an unfortunate part in these results as well. Typically, many transfer students are lateral transfers, which means they move from one 4-year school to another. These students tend to be of a significantly higher socioeconomic class than their counterparts transferring from community colleges. However, with fewer students moving long distances to attend new schools, more community college students are transferring now and fewer lateral transfers. These population changes make a difference since, as we know, economically disadvantaged students tend to struggle in their first years in a 4-year college and experience higher dropout rates as well (Titus, 2006).

The result is that more students from lower socioeconomic status and less-educated families were accepted in Fall 2020. These groups have traditionally struggled in four-year colleges and experience higher dropout rates than their peers (Titus, 2006). To make matters worse, many of these individuals are now transferring to a new and more competitive environment during a stressful pandemic. Many of the transfers are also likely to have fewer hours to devote to studying, especially if they struggle economically.

However, there are other possible explanations. One of the predictors for the success of transfer students in the new institution is their social integration into their new academic home. Many students transferring have reported difficulty making new friends and feeling at home. However, this problem is generally alleviated over time as they meet other students on campus and in the dorms (Townsend & Wilson, 2006).

There is no question that this difficulty is exasperated for new students in COVID-19. The usual avenues for making new friends and obtaining a social support system may not be available as social events do not occur. Meanwhile, for students attending the school before the pandemic, life is easier socially speaking. They have already made friends and can rely on social support.

The most likely explanation combines the two. Schools are now admitting students with lower GPA's and fewer completed years in community college. These students tend to be of lower socioeconomic status and come from families with less higher education experience. These vulnerable students are now more socially isolated than they would be in a more typical year.

This study and other relevant research into transfer students show that it is not particularly useful to treat transfer students as one unit. How student transfers as a group have fared in the past tells us little about the likely outcome facing a specific individual. Now that the effects of COVID-19 have changed the population of transfer students, it performs quite differently.

## **Conclusions**

In summary, the results show that transfer students have not fared as well for this business class and continuing students in switching to fully online learning. Further research is needed to determine the causal mechanism behind these findings. However, previous studies give us an indication of the likely factors at play here. These are most likely the admission of more vulnerable students and their isolation due to the pandemic.

Transfer students will need additional academic support to do well in an online learning environment. That support will have to be multi-pronged as the problem is educational, social, and economical.

The discipline of the transferring students has been shown to influence their performance upon transferring directly. Business students experience more 'transfer shock' than their counterparts in other fields (Cedja, 1997). However,

additional research is needed to confirm these results. These results may not hold across all types of business classes.

Future research on transfer students during COVID-19 should emphasize differences in socioeconomic status and race. Other researchers have found that the impact of the pandemic on individuals varies significantly when we take those factors into account.

Additional research on specific transfer student characteristics would also be helpful. It may be that students transferring from certain institutions may do more poorly than those from other institutions. There may be additional factors such as student age, which impact transfer students' success in online environments. In any event, future research should avoid lumping together all transfer students into one group. It is clear that lateral transfers, lower socioeconomic status transfers, minorities, and other subgroups within the larger group of 'transfer students' fair quite differently academically. These divisions are merely sharpened, not created, by the plight induced by the pandemic.

If these findings are accurate, they have important repercussions. We have long been aware of the difficulty students of lower socioeconomic status have integrating into 4-year schools and obtaining their degrees. Although many schools have made significant strides in that regard, there is still improvements to be made. The situation may be exacerbated by accepting only the best-prepared students from community colleges. The pandemic seems to have made the situation worse, and transfer students are suffering economically and socially. Universities should consider expanding resources to alleviate their transfer students' plight, now more than ever.

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