

Gendered Difference in Student Completion due to COVID-19

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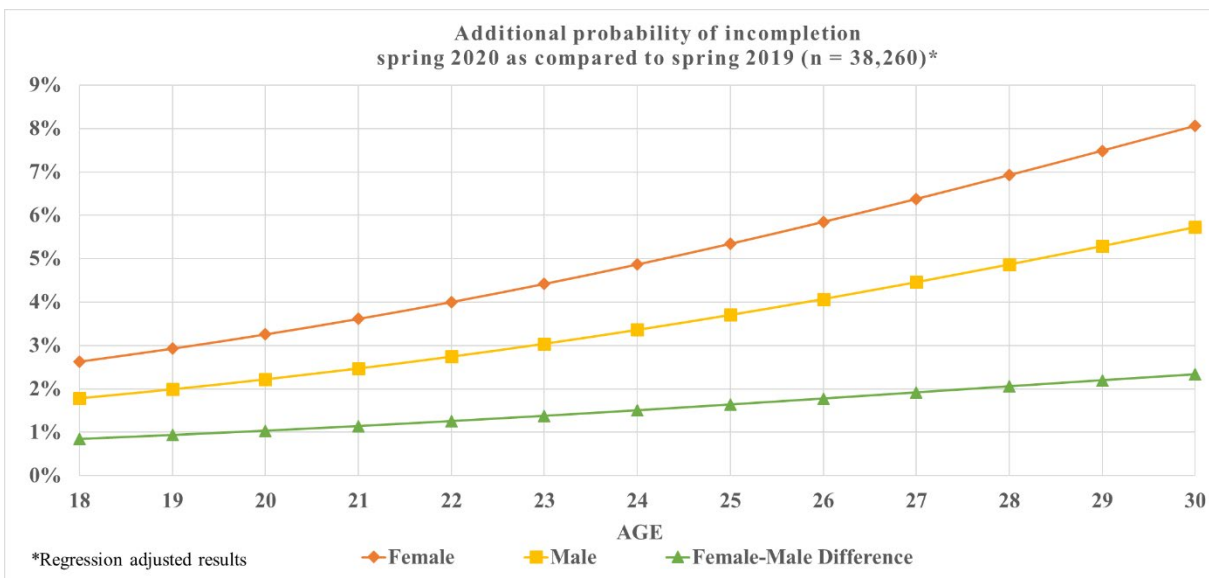
REDI Report – April 2021

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- To examine COVID-19’s effect on student completion and whether there were differences between genders and between older students and traditional students, we analyze student performance data from courses offered in spring 2020 and spring 2019 from multiple campuses in Northern Colorado. We find a statistically significant positive correlation between student age and the probability of noncompletion.
- We find that the positive correlation exists for both genders and widens by age with women having a higher probability of incompleting.
- Our research highlights the struggles of women and students with children and contributes to better understanding and awareness of the struggles faced by non-traditional students. It encourages public policies such as [child-care services](#), subsidized broadband connections, and so on, which could alleviate the burden that disproportionately fall on non-traditional students, particularly women.

After the World Health Organization informed the Global Outbreak Alert and Response Network of the first outbreak of COVID-19 on January 2, 2020, life changed for people all around the globe, including in Colorado. The spring semester for students in K-12 and colleges and universities in Colorado started as any normal semester. However, schools started to close and offer remote instruction around spring break. All schools either closed or went into remote instruction after Governor Polis issued a “stay-at-home” [order](#) on March 14, 2020.

Much has been written and discussed about how educational institutions, teachers, students, and professors had to adapt to the new modality of online instruction with technology like Zoom and MS Teams, among others. As institutions of higher learning adapted to the ‘new normal’, they offered asynchronous, synchronous, and blended or hybrid options for students. This sudden switch had an impact on all. Our interest was to see if this sudden switch of modality placed a disproportionate burden on non-traditional students¹.



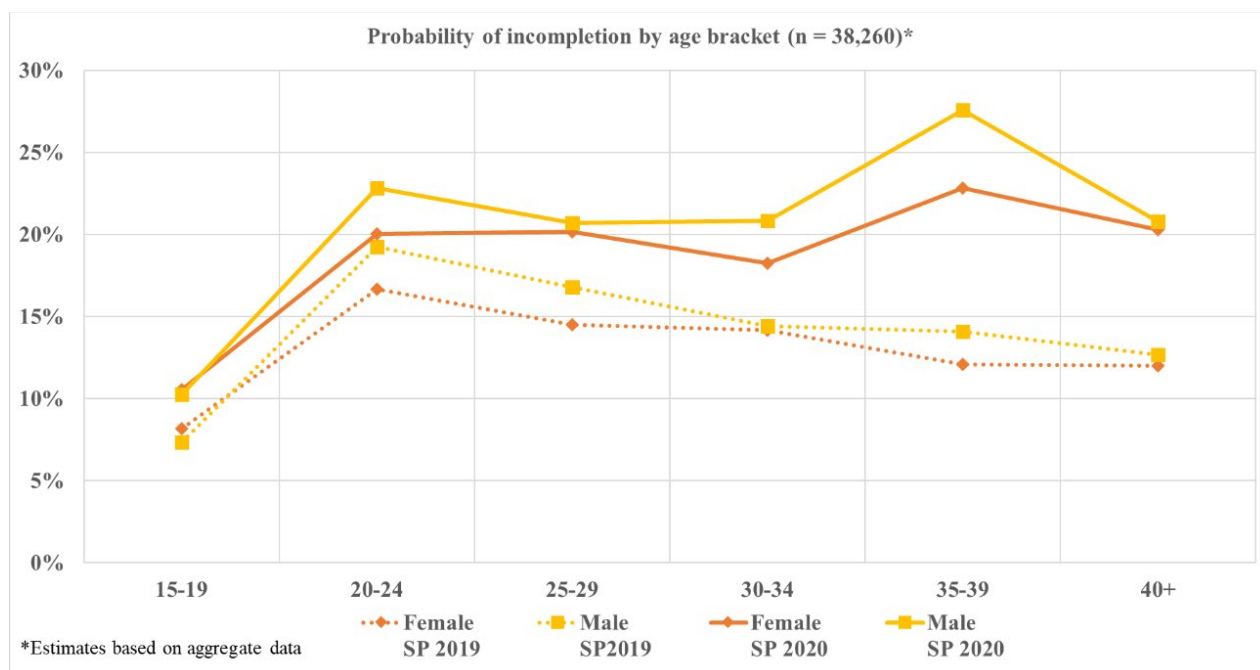
To study the impact on this group of students, we compared student completion (n = 38,260) from the 2020 spring semester with that of spring 2019 at various campuses in northern Colorado. A student was placed in the incompleting

¹ Students who are older, are parents, or are working full-time are generally considered to be non-traditional. Students who do not fall into those categories and between the ages of 18 to 25 would be considered traditional college students.

category if they had an Administrative Withdraw (AW), a Withdraw (W), an Incomplete² (I), and/or applied for a grade of Unsatisfactory (U). We evaluated the probability of being in the incompleteness category for each semester, controlling for various student characteristics (Age, Race/Ethnicity, GPA) and institutional characteristics (teaching modality, location). We find that the probability of incompleteness increased for both genders and with age. In fact, the gap between the two genders widens by age with women having a higher probability of incompleteness.

Older students and students with children in the spring [had added demand](#) on their time at home as their children were also learning remotely. Many individuals, particularly women, reported that they had to choose between work and staying home to help with their children’s remote learning. There were also [news reports](#) that highlighted that with the higher demand of care at home, the low wage earner, overwhelmingly women, had decided to leave the labor market. Women with children have reported spending more time caring for their children, including those who worked prior to the pandemic.³

Our results also show that the probability of incompleteness increases with a student’s age, possibly due to the high demand on their time at home. The [average age](#) of mothers in the surrounding counties of our study group is 27.2 and the [average age](#) of a father in the US is 30.2, which may explain the correlation we observe of an increase in the likelihood of non-traditional students being unsuccessful. We grouped students into different age brackets to see if the results would hold, and we do find that the probability of incompleteness does increase for students in higher age brackets. Most notable is the increase for the students in the 35-39 age bracket—a group that is likely to have school-age children and a job.



As the incomplete grades are resolved we will have a much better idea of what the final impact was. However, from what we currently find, older students, particularly women, were impacted much more negatively and a likely cause is the demand on their time at home. Our research highlights the struggles of women and students with children and contributes to a better understanding and awareness of the struggles faced by non-traditional students. It encourages public policies such as [child-care services](#), subsidized broadband connections, and so on, which could alleviate the burden that disproportionately fall on non-traditional students, particularly women.

² Students were allowed to have a full year to complete any incompletes in SP2020 due to COVID-19, so the data is going to change. We plan to update the results after all grades are finalized.

³ The Pandemic Parenting Study, University of Indiana, <https://research.impact.iu.edu/coronavirus/pandemic-parenting.html>