

A DESCRIPTIVE ANALYSIS OF THE IMPACT OF COVID-19 ON GRADES

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Introduction

Students face enormous losses in learning due to COVID-19 driven by adaptation to an online learning environment, adaptation to a new physical environment, decreased access to university resources, in addition to personal stressors. The university has an incentive to retain as many students as possible, as evident by their instructions to departments to be understanding of students' situations and the change to a more lenient Pass or No Pass grading policy during Spring, Summer, and Fall 2020. This paper discusses the effect of COVID-19 on course grades and retention at the University of Oregon in Spring and Fall of 2020. We descriptively analyze course grades across department and term to determine if grades increased after COVID-19 despite the decrease in learning. We predict that monetary incentives at the administrative and department level of the university, altruism of instructors, and cheating drive the inflation of grades.

Key Findings

1. On average, the median grade across all university courses increased from a B+ to an A- after COVID-19 began.
2. Instructor altruism may be driving grade inflation more in departments with lower grade averages.
3. Students heavily increased use of P/NP grading option once the policy changed.

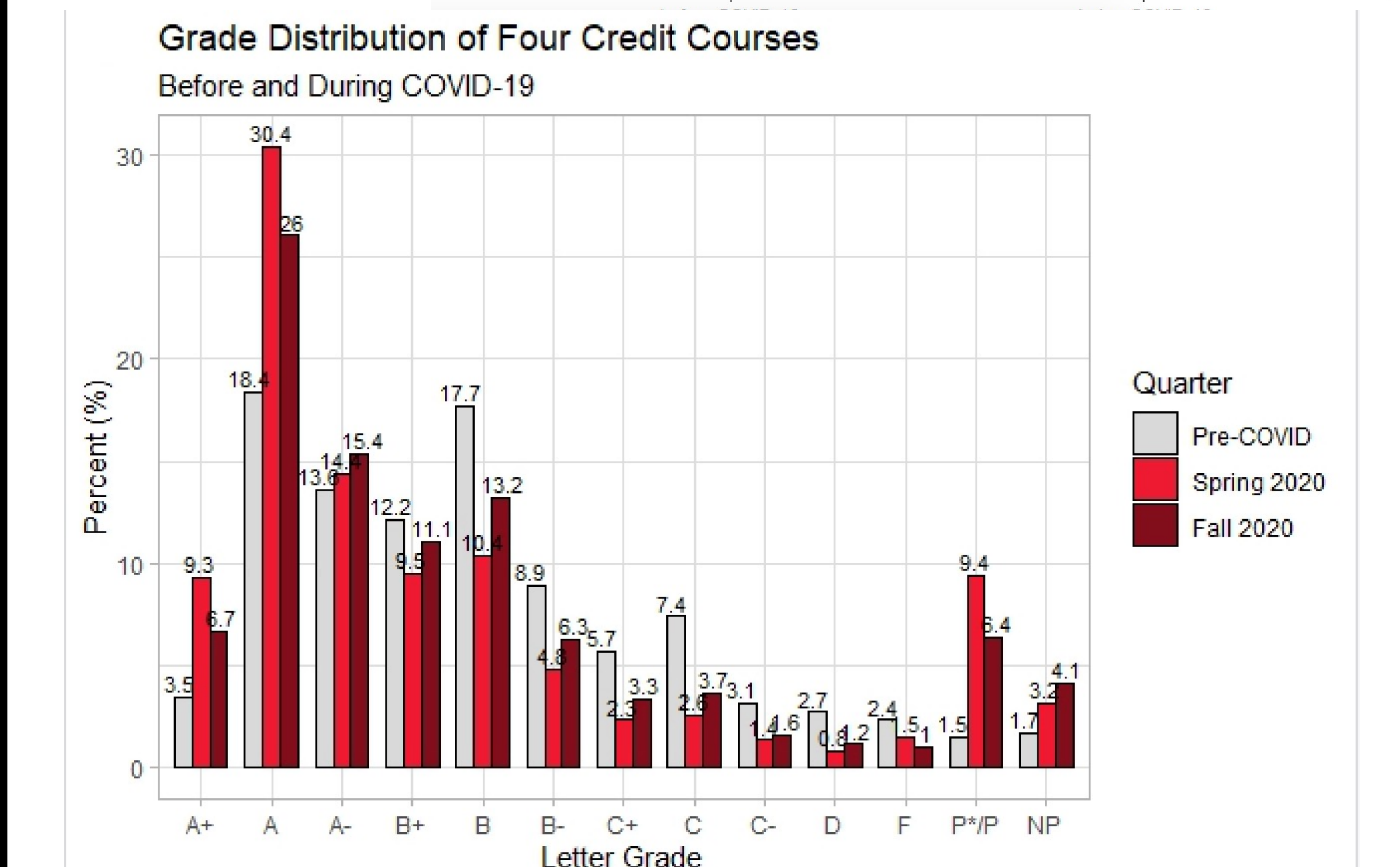
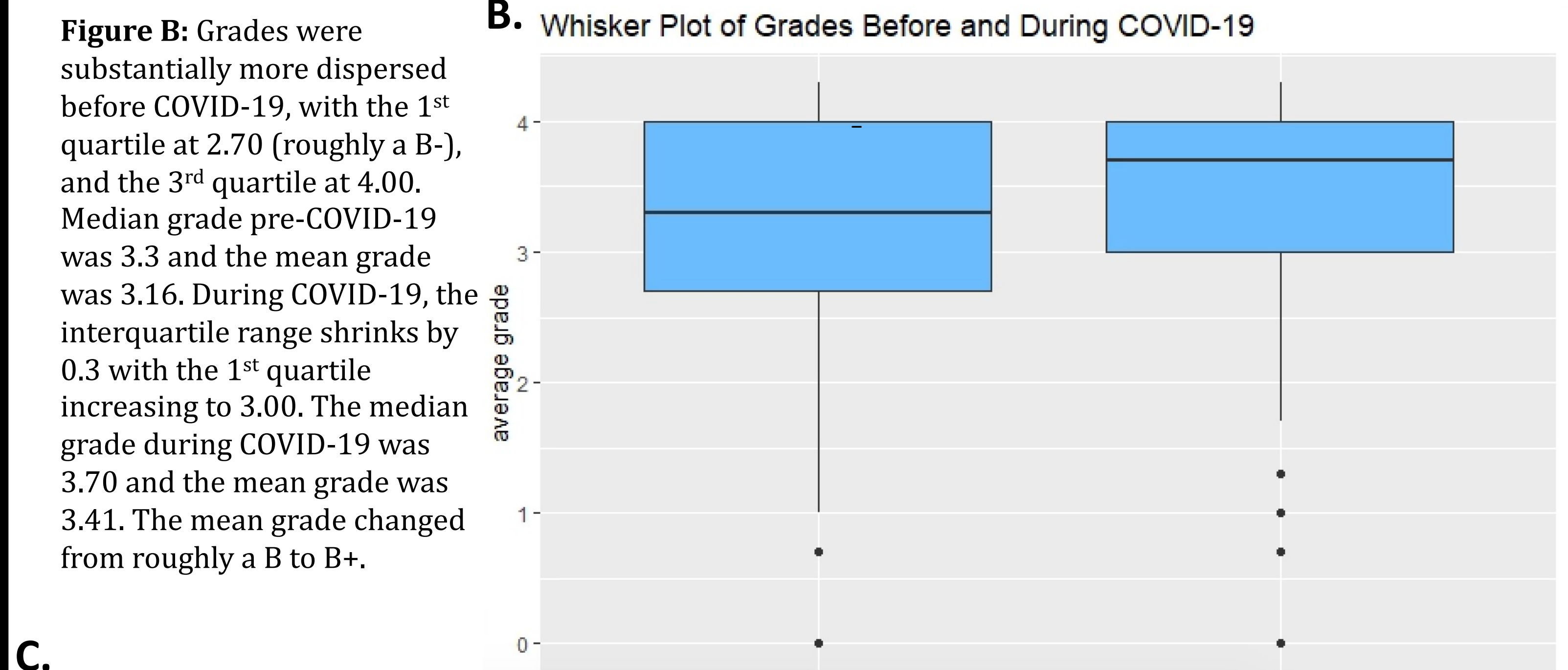
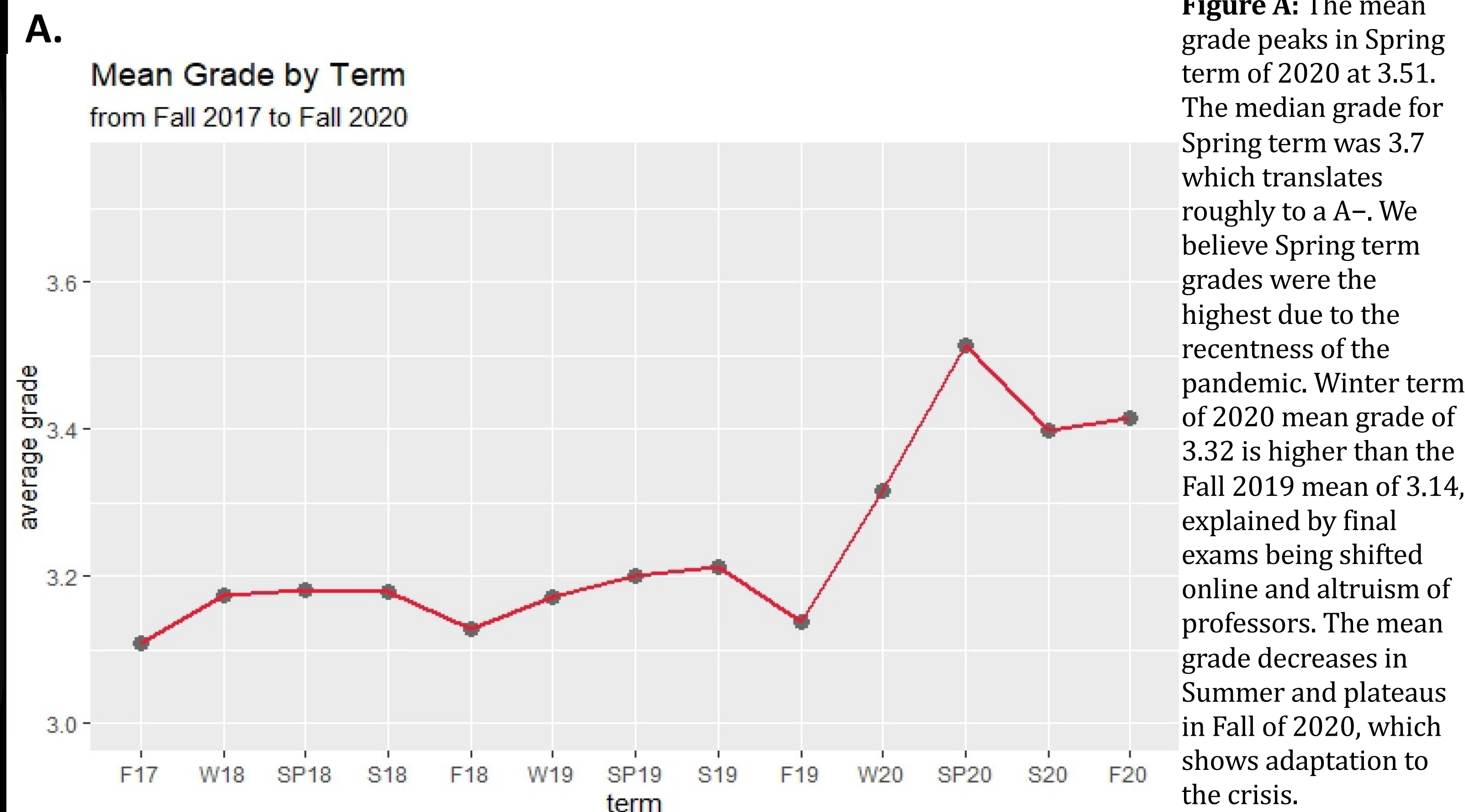
Existing Literature

- Aucejo et al. 2020 used student survey data to construct a subjective treatment effect, finding that 13% of students delayed graduation and 50% expected their GPAs to decrease
- Bird et al. 2020 used a difference-in-difference model to show that the abrupt shift to online learning caused an 8.5% decrease in course completion.
- Figlio et al. 2010 and Alpert et al. 2016 conducted randomized studies that show that students in online courses perform worse in online courses.

Methodology

We obtained de-identified data from the University of Oregon Registrar containing course information for each student. We merged this with a dataset containing student information, allowing us to examine retention rate. We created before and after COVID-19 subsets: before COVID-19 contains all entries from Fall 2017 through Winter 2020 and after COVID-19 contains Spring and Fall 2020. Grades are recorded in letter format; where necessary we used a GPA scale to convert letter grades to numeric. Retention was calculated by finding a student's last term and verifying if they graduated; if the student's last term was anything before Fall 2020 and they did not graduate, we marked them as "dropped". The percentage of students dropped is simply the number of students who dropped divided by the total enrollment of that term.

Overall Grade Inflation



Departmental Grade Inflation



Retention

Figure E: Retention is an important indicator of university and student success. We see a cyclical pattern where the most students drop out in the Spring term. After Spring 2020, 6% of the student population dropped out, likely driven by students' perceptions of the value of online school as well as personal circumstances (e.g. loss of parental income, loss of own income, health emergencies). Retention was also lower in Winter 2020, likely driven by the shock of the crisis however, it seems that most students chose to participate in one term of online school before dropping out.

Retention Before and During COVID-19			
Fall 2018 - Spring 2020			
term	total dropped	total enrollment	% dropped
Fall '18	446	18026	2.5
Winter '19	272	17203	1.6
Spring '19	647	16640	3.9
Fall '19	447	17808	2.5
Winter '20	365	17010	2.2
Spring '20	979	16297	6

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