Grade Inflation Trends in the Principles of Financial Accounting Class Before, During, and After the COVID-19 Disruption: DEIB, Course Delivery Modalities, and Faculty Employment Status

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This study considers grade inflation before, during, and following the COVID-19 disruption within a Diversity, Equity, Inclusion, and Belonging (DEIB) framework focusing on the first principles of financial accounting class. Findings indicate that there was an identifiable trend of grade inflation before the pandemic alongside a significant marginal effect concurrent with the COVID-19 disruption followed by a return to normality in the post-pandemic timeframe. Importantly, the disaggregated data demonstrated no significant variations across course modality and instructor employment status with respect to the studied sub-groups of students providing evidence that grade inflation does not have an inequitable impact.

Keywords: principles of accounting, grade inflation, DEIB, COVID-19, faculty employment status

INTRODUCTION

Grade inflation and diversion from normality have long captured the imagination of administrators, educators, employers, parents, students, and other interested parties at all levels of the educational process (Bejar & Blew, 1981; A Nation at Risk, 1983; Bilimoria, 1995; Kamber & Biggs, 2004; Sanchez & Moore, 2022; Yeritsyan et al., 2022). The Vietnam War and the Civil Rights Movement of the 1960s and 1970s arguably provided the seeds for grade inflation as the academy attempted to protect students from the military draft while supporting an expansion of university access to underrepresented parties, although the origins of grade inflation may well precede this timeframe (Bowen and Cooper, 2021).. "Grade inflation is widely believed to be detrimental to the perceived legitimacy and rigorousness of higher education" (Bilimora, 1995, p. 452). The general concept of inflation has been described as "an increase in grade point average without a concomitant increase in achievement" (Bejar & Blew, 1981, p. 143). A Nation at Risk (1983), the seminal report by the United States Department of Education, addressed contemporary society's perceived eroding educational foundations across a broad spectrum of educational institutions, including elementary and secondary schools (both private and public), vocational and technical organizations, colleges, and universities. University administrators acknowledged a need to accept and confront "a rising tide of mediocrity that threatens our very future as a Nation and a people" (p. 9). The authors proclaimed that, alongside a broad litany of fundamental and critical issues identified through their efforts, this

migration towards mediocrity supported and affirmed the conclusion that "grades have risen as average student achievement has been declining" (p. 22). Their recommendations for action included a forcefully and strongly worded pronouncement for all interested parties that "the problems we have discerned in American education can be both understood and corrected if the people of our country, together with those who have public responsibility in the matter, care enough and are courageous enough to do what is required" (p. 2).

Concerns surrounding grade inflation in higher education, and more specifically in the domain of accounting studies, the subject of this effort, have remained largely unabated over the ensuing decades following the A Nation at Risk report in 1983 and the issue appears to continue to persist at all educational levels and, arguable, may well present an even more troubling issue today. Rosovsky and Hartley (2002) define and reassert earlier definitions for grade inflation, explaining that it is "an upward shift in the grade point average (GPA) of students over an extended period without a corresponding increase in student achievement" (p. 4). Sanchez and Moore (2022), reporting on current grading practices in high schools, offered "evidence of grade inflation without and with accounting for student and school characteristics" (p.1). They added that "grade inflation became apparent in 2020 and 2021 [during the global pandemic], with the rate … increasing substantially during those years;" however, "attributing these changes directly to the COVID-19 pandemic is difficult" (p.1). Yeritsyan et. al. (2022) pontificated that "grade inflation raises concerns about the credibility of academia's standards of excellence and accountability through the lowering of academic standards" while concluding that "these concerns are dismissed if higher grades reflect improved academic achievement and not inflation" (p.1). Therefore, if rising grades present themselves over an extended period (defined as grade inflation), they are not an issue to either consider, be concerned with, or direct effort towards if there has been a corresponding increase in student abilities or achievement. Measuring comparative achievement across time is important; however, this research effort is directed at the numerical existence of grade inflation and a consideration of some identifiable demographic factors that may accompany such a diversion, upward or downward, across time leaving the comparative achievement level question to future research.

The massive social and education delivery disruptions accompanying the COVID-19 pandemic have brought rise to renewed concerns surrounding the intersection between student achievement and grade inflation as institutions evolved their course delivery methodologies and sought to find common ground between student desires/concerns/needs and institutional requirements relative to quality outcomes. Concurrently, "[t]oday's business schools, students, and faculty are demographically quite different from in the past … [with] … women and some racial and ethnic minorities remain[ing] underrepresented in colleges/schools of business (COB) (Bell, 2010, p. 5). Into this whirlwind, diversity, equity, inclusion, and belonging (DEIB) initiatives directed at decreasing the educational opportunity gap have exploded in the past decade. In combination, it is fair to say that significant change has been in place; however, and unfortunately, these have brought with them alarm to concerns of "no child left behind" grading standards that serve to ensure success for all such endeavors while being quite likely to exacerbate grade inflation. To emphasis, it is far too often proclaimed, without adequate evidence, that lower grading standards are or should be the anticipated and expected outcome of DEIB programs that primarily serve to enhance student retention metrics by selecting the low hanging fruit. This goal, highly desirable to some university administrators, is often declared as simply passing sub-par students onto the next class – a significant quality issue and consequential choice. The impacts of COVID-19 and DEIB initiatives are important concerns worthy of empirical study.

In this ever-evolving and changing higher education landscape, our research seeks to explore the crossroads between grade inflation, course delivery methodologies, and identifiable demographic characteristics of faculty and students. Our primary focus and concern is directed at the principles of financial accounting course, a challenging, and often required, gateway course offering for undergraduate students at most, if not all, higher educational institutions that offer business studies and some majors outside the immediate college. We wish to discern if grade inflation is evidenced in the principles of financial accounting course over an extended period of time at the subject institution when considering all course sections delivered. Subsumed within this analysis is our desire to establish if there is evidence of

increased grade divergence during the COVID-19 timeframe, the timeframe where higher education was profoundly changed. Our interest is primarily directed at a consideration of various defined demographics, from both the faculty and students sides, which have potential to elicit differing grade inflation or diversion impacts across time. Finally, and importantly, as course delivery methods have evolved from the traditional on-campus, in-person classroom environments, a significant research question is whether grade inflation presents differently in these new course delivery methodologies compared to the more traditional course delivery arrangements.

THEORETICAL FOUNDATIONS

Several normative research theories can be combined to form a synergistic framework supporting empirical consideration of grade inflation in higher education environments, both its existence and the associated impacts. Institutional theory, a stable of management studies literature since it originates with Meyer and Rowan (1977), affords a solid foundation upon which several supporting theoretical pillars more commonly deployed to address empirical issues within the accounting research domain can be laid. This theory emphasizes how organizational structures and societal pressures operate together to offer and provide authoritative guidance surrounding expectations for acceptable behavior and actions that ultimately support sustainability. Further, one formattable line of thought surrounding institutions asserts, in part, that organizations look to their peers to optimize their decisions, practices, and structures to assure legitimacy. For better or worse, higher education institutions of all ilk's are in this together. They collectively face considerable pressure from their customers, cohorts, employees, and benefactors to serve society's best interests. Their interests include, but are not limited to, offering a reasonably priced model for educational services while concurrently enabling broad access to career-building opportunities for all members of society regardless of economic or social status, color of skin, religious orientation, roots of one's ancestors, gender, and myriad other considerations encompassing the ideals of "fairness and inclusion. Within this truly challenging operational environment, higher education administrators will make important decisions regarding tuition pricing, program offerings, student enrollment and retention, faculty hiring practices, and DEIB concerns as society evolves.

Rational choice theory (popular with economists) argues that as public universities have increasingly transformed into commercial enterprises focused on revenue generation, they are increasingly forced to compete for a finite or limited customer base. This economic scenario is particularly acute for publicly funded higher education as their basket of consumers has diminished in recent years, concurrent with decreased governmental funding, and expanded competition from alternative higher-education providers offering broad/easy access and remote delivery options. To further confound and exacerbate this enormous shift in the fundamental operational paradigm, the appearance of COVID-19 afforded a catalyst that was at least as disruptive and nefarious as the forecasted enrollment cliff is perceived to be. In such a chaotic and unruly marketplace, competition based on the heightened need for revenue generation is a truth with considerable potential to invade the evaluation process by lowering academic standards. This theoretical paragon, rational choice theory, is targeted at and addresses the revenue side of the income statement.

Cost containment, the well-understood counterpoint to revenue generation in the profit maximization process, is captured in functionalist theory. It argues that an increasing use of temporary faculty, either adjuncts or fixed-term employees, to control costs to maintain or increase profitability is a logical approach that is particularly fraught with danger in higher education environments. Marketing professors have long discussed and elaborated on the critical balancing act that accompanies the mixture of pricing and quality as a firm position itself in the marketplace. An increased use of temporary appointments would seem to imply decreased input quality in terms of faculty qualifications that could seriously impact output from the manufacturing process (educational delivery). Further, from this less secure employment position, when compared to tenured faculty, limited-term appointees can be predicted to respond in ways that heighten their chance of survival in future contract arrangements, a desirable outcome for the faculty member that could undoubtedly manifest itself in the lowering of grading standards to satisfy the customer and thereby receive positive student evaluations. This latter point is of no minor concern in today's higher education

commercialization model as all faculty members, regardless of employment status, are increasingly impacted by the student evaluation process. Indeed, there is an extensive body of literature on student evaluations, including much discussion on how to manipulate these instruments to benefit faculty members. It is fair to say that these have become a game, a manageable process that may ultimately have little value while also having great potential to pejoratively impact career advancement, for many subjected to this process. Students are perceived and valued as customers who must be maintained or acquired for the institution to remain successful. And the existence of websites that enable students to offer "insight" without attribution concerning courses and faculty members, further emphasizes the interplay between these two parties in the educational domain. This theoretical paradigm, functional theory, targets and considers the expense side of the income statement.

DEIB concerns and its myriad dimensions are captured in the literature surrounding critical theory (Frankfurt School), first defined by Horkheimer (1937), where systems of oppression that perpetuate inequalities are examined. The theory considers several philosophical approaches to understanding and interpreting DEIB group behavior differences. As a thought paradigm with a long history and widely applied in humanities and social science research, critical theory, in a broader sense, has provided a foundation for a growing line of essential perspectives in accounting research. This paragon presents an analogous albeit counterviewpoint to the agency and stewardship theories commonly applied in financial accounting information asymmetry research. Information asymmetry is potentially crucial to understanding existing DEIB distinctions that may present themselves through grade variations, generally downward for the underrepresented party. While undoubtedly diverse in their personal backgrounds and views of education, it can be stipulated that faculty generally have an agreed-upon belief relative to academic goals and objectives for a given course of study. Students who learn the subject well should be rewarded on their course metric, while those who do a lessor job should be awarded lower measures of success. However, this information set, and outcome measurement process may be at odds with that maintained by carefully crafted sub-groups of students who possess a group dynamic and culture that could serve to unsettle or upset the achievement of faculty desires. The U.S. government and all higher educational institutions have clearly defined methods for dividing students into sub-groups based on demographic characteristics of interest. The reader is encouraged to digest their institution's definitions in this regard as a singular explanation for the attributes of interest in all aspects simply does not exist.

It is the interplay of this principal-agent relationship, often described as culture, that, if it exists and presents itself in grading differentials, the academy needs to understand so that well-founded strategies and metrics for measuring successful DEIB interventions can be developed, implemented, and evaluated without any spurious impacts inflecting the evaluation procedures. Critical race theory addresses revenue and expenses on the income statement within a framework of fairness and inclusion – the essence of belonging.

LITERATURE REVIEW

An early critic of increasing grades in the accounting domain, Ellis (1977) offered, "[a]nyone concerned with recruiting college graduates has probably noticed a rise in the overall grade point averages (GPA) of potential employees. In addition, the topic of overall grade inflation has been widely recognized in the general press" (p. 21). Cluskey Jr. et al. (1997) studied the relationship between grades and student aptitude, focusing on four senior-level accounting classes. They employed regression procedures to find that grade inflation existed at the university and college levels but was not pervasive within the accounting courses studied. Interestingly, their motivation was rooted in perceived institutional pressures of the time "such as the need to bolster declining business school and accounting department enrollments, greater competition for a declining number of high school graduates, increased emphasis on teaching critical thinking skills, and faculty evaluations that depend, at least in part, on student evaluations" (p. 273) – similar, if not precisely the same issues often cited by concerned parties to this debate within universities, School of Business, and Departments of Accounting today.

Anglin and Meng (2000) reported grade inflation in Canada for virtually all disciplines across 20 years commencing in 1973/74. A decrease in F awards and a skewing of grades toward the B/A range were evidenced. Notably, the study of accounting was not considered in their research sample. The evidence in support of university-level grade inflation is questioned by Shoichet (2002). Johnes and Soo (2017) suggest inconsistent evidence supporting an affirmative position. Chowdhury (2018) claims that grade inflation is a global phenomenon worldwide.

Indeed, the normative and empirical evidence and the existence of grade inflation appears to remain conflicted. Several authors argue it does not even present an issue worthy of discussion (Finefter-Rosenbluh, and Levinson, 2015, p. 18). Several empirical efforts have offered evidence supporting the idea of grade inflation (Chowdhury, et al. 2017) while others have failed to find a mathematical relationship (Johnson, 2021, pp. 107-110). More recently, attention has been directed to the COVID-19 pandemic and its considerable impacts on education delivery and academic outcomes. Clearly, the existence of grade inflation at the university level remains an unsettled issue, particularly as it relates to a single academic discipline or course, such as accounting.

Other important and timely issues are subsumed within the debate on grading behavior in COBs. Sonner (2000) questioned the increased usage of adjunct faculty positions for business courses and whether this contributed to grade inflation. Such a collective of short-term, often temporary, instructors "face serious pressure to earn good (student) evaluations … meaning giving higher, potentially inflated, grades" to keep students happy should be an anticipated and expected outcome. She studied average course outcomes over two years at a small public university, finding evidence that adjunct faculty give higher grades regardless of the instructional level. Kazim et al. (2005) expanded the scope of this topic in a similar small private college setting but across the 20-year horizon (fall 1983 to spring 2003). They confirmed the earlier findings concerning adjunct faculty. However, each of these studies is of limited value (generalizability) as neither encompassed a more prominent public institution, which is the setting for our effort.

Over the past decade, course delivery modalities have rapidly morphed with the expansion and growth of for-profit, online universities alongside the advances associated with the "Internet of Things. For higher educational institutions and society, these events reached a heightened crescendo with the urgent demands and challenges of the massive time and space disruptions associated with the COVID-19 pandemic (Usndg, 2020). In the face of the extraordinary chaos that accompanied instantaneously switching locations and delivery formats, institutions called for a heightened understanding of student issues and concerns, often placing more lenient grading policies into practice, either explicitly or implicitly. For many institutions, the University and COB leadership delivered a concise and clear message that the faculty and instructor should focus on providing pathways toward student success. Adopted course delivery mechanisms were to be user-friendly, easily accessible, flexible, and targeted to meet the needs of students so that they could continue their enrollment despite the challenging societal issues. All feasible approaches to ensure classroom success were deemed a university priority of the highest degree. Some argued that student performance was likely to decrease in this environment due to limited instructor-student contact and its impact on student motivation (Sintema, 2020). Others claimed the opposite viewpoint that this mandatory transition to solely off-campus, online course delivery would result in grades being inflated and thus of questionable value due to a lack of supervision (Park & Cho, 2023). Technological issues and presumed academic dishonesty (Sangster et al., 2020) raised substantive concerns among faculty about whether grades accurately reflected students' learning and quality of work during such a challenging time.

Before COVID-19, businesses and universities had initiated or extended their concentrated efforts to address the myriad issues associated with diversity, equity, inclusion, and belonging (DEIB). The groups of students, or classifications, considered for this study were defined with reference to such taxonomies as reported at the university level at the target school. For educational institutions, efforts were often targeted at aiding marginalized groups to foster more success in historically difficult courses, such as the course targeted in this study. These efforts, if successful, result in two positive and highly desirable outcomes. First, members of the treatment group tend to obtain higher course grades. Second, the non-success rate, often and increasingly measured by a DFW metric, declines as students receive an acceptable final course grade permitting matriculation to their chosen major. Both outcomes will have the same effect, raising the

average overall course GPA. This outcome may be interpreted as grade inflation; more likely, some components of the increased grades result from some combination or interaction between both forces.

Historical grade inflation trends surrounding accounting courses' principles are an empirical question. To our knowledge, it has yet to be considered or documented in prior research focusing on this specific course. Concurrently, COVID-19 represents an identifiable, time-bounded intervention in course delivery that is likely to have been responsible for some diminution in faculty expectations, and this could undoubtedly, and likely did present itself through more lenient grading processes (Sangster et al., 2020). For an upward grade diversion to be unquestionably attributed to grade inflation, two plausible rationales must be considered as potential causal agents and reasonable explanations. First, more academically capable students will indeed, in general, earn higher grades. It must be confirmed that students today are comparable to those of prior periods, so pre-existing academic ability can be eliminated as a reason for higher grades in subsequent semesters. Second, a measurable increase in knowledge attained across a semester would explain, to a considerable degree, better course outcomes. For the current study, consideration of the pre-existing academic disposition of students is undertaken as a prerequisite to a comprehensive evaluation of grade inflation. The question of increased knowledge attainment after completing the course requirements remains for future research.

RESEARCH METHOD

Data for this study was collected in October 2023 from university records for students enrolled in the principles of financial accounting course between the fall semester of 2013 and the spring semester of 2021 (16 academic semesters). Summer sessions were deemed to be sufficiently dissimilar from regular semester courses, including student demographic compositions and course format, that they were excluded from the analysis. The educational institution studied is a comprehensive, AACSB accredited, regional, midwestern university located in a medium-sized, rural community setting serving approximately 15,000 students. It is the largest of the many institutions in the state post-secondary operational environment. While it is certainly rural in nature, it also possesses many characteristics of urban educational institutions due to its location just outside a large urban environment and its active push and involvement in diversifying the student body along persons of color and international status.

The institution has 13% of students self-identifying as persons of color and approximately 9% of the student body classified as international. Students were not restricted to COB enrollees as the class is required for numerous other majors outside this specific domain at the target institution and may also be completed as a general education requirement. Relevant data collected included course grade, modality, repeat status, university cumulative GPA, high school GPA, high school class rank, ACT scores, gender identification, ethnicity, and first-generation student status. The Institutional Review Board (IRB) approved the data collection protocol. A total of 5,595 cases were produced, including student retake attempts. Retakes were considered a new observation each time a student enrolls, with students being restricted at the university level to an aggregate of three enrollment attempts. Course grades fall on a five-point scale of 0 to 4 (F to A). W (administrative action) and P marks do not earn points and are excluded from calculating course grade metrics.

The rationales and subjects for our study, leading to the development of research questions, are four-fold. First, is there empirical evidence of a trend in grade inflation across time for this course in aggregate without granting consideration for course delivery methodologies or faculty and student demographics? Second, during the three COVID-19 semesters, did grade inflation spike from its historical linear pathway without granting consideration to any other variables of interest? Third, does grade inflation, if evidenced, manifest differently across distinct groups based on DEIB student demographics of interest, course delivery modalities, and faculty employment status during the COVID-19 disruption? Fourth, there is little published "research on the extent to which eased grading standards continued post-pandemic, as teachers and students returned to normal schooling" and this is of considerable interest to all (Goldhaber & Young, 2023, p. 1). We seek to empirically assess each of these salient issues concerning the principles of financial accounting

course, a gateway, foundation required of all students seeking admission to the COB – grading diversity before, during, and following the conclusion of the pandemic.

RESULTS AND FINDINGS

A high-quality, archival dataset specifically designed and maintained to support evidence-based data analytics adds substantively to this research and its findings. Sufficient observations are available over an extended timeframe, providing statistical power that supports any conclusions drawn. The availability of this dataset, in combination with our motivations listed above, led to the development of five targeted research questions.

Research Question #1: *Do enrolled students in the historical timeframe (before the COVID-19 disruption) appear to differ concerning pre-existing academic abilities compared to their COVID-19 cohorts?*

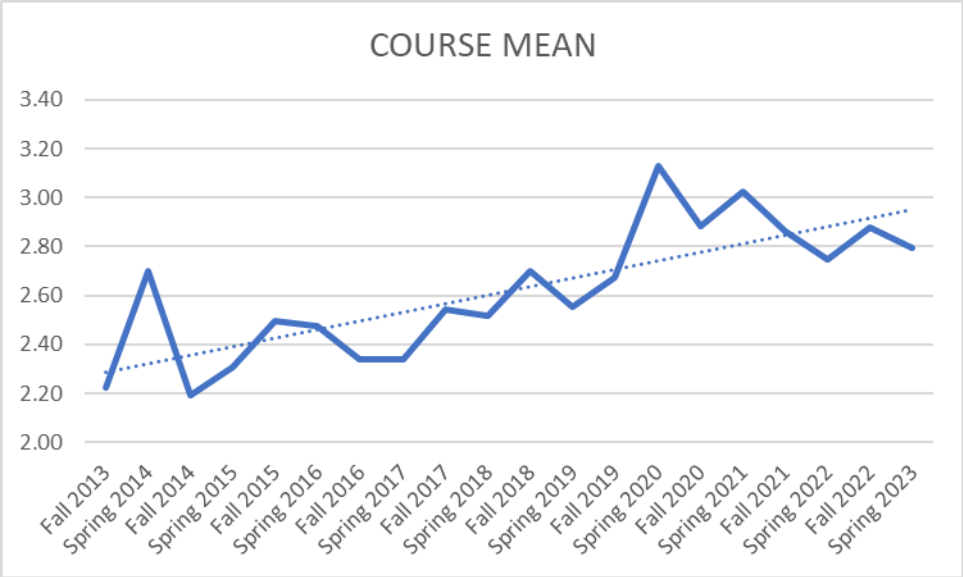
Table 1 summarizes academic performance statistics by semester for the 5,595 cases obtained. The observations are divided into a historical (4,374 observations) and COVID-19 (1,221 observations) period dichotomy. These measures can serve as surrogates for pre-existing academic achievement and have been utilized as such in other research efforts (Rosacker et al., 1995). They include university cumulative GPA, high-school (HS) cumulative GPA, HS rank, and ACT scores.

Figure 1 affords a visualization of mean course grades across time. The trend line is rising across time, implying some degree of increased grades as a function of time. It is visually apparent that there was a significant spike in the course mean during the spring semester of 2020. The course means for the fall semester of 2013 to the fall semester of 2019 (historical era) averaged 2.58, ranging from 2.23 to 2.70. For the three semesters of the COVID-19 timeframe, this metric averaged 3.00, with a range of 2.88 to 3.02. Of the 16 semesters included, 6 exceeded the historical average, with all 3 COVID-19 era observations meeting this criterion. The upward trend, of course, strongly suggests grade inflation. Spring 2020, Fall 2020, and Spring 2021, outliers from the trend line, suggest marginal grade inflation during the COVID-19 pandemic. Finally, the four semesters following the COVID-19 disruption support a finding that course means have returned toward the normal grade inflation trend line.

TABLE 1
MEASURES OF PRE-EXISTING ACADEMY ABILITY

	University GPA	High School GPA	High School Rank	ACT
Fall 2013	3.03	3.25	60.61	22.25
Spring 2014	3.01	3.23	59.77	21.86
Fall 2014	2.95	3.21	58.09	22.08
Spring 2015	2.95	3.16	57.28	21.58
Fall 2015	2.95	3.17	55.11	22.05
Spring 2016	2.98	3.18	54.59	22.01
Fall 2016	2.94	3.15	54.99	21.96
Spring 2017	2.94	3.15	55.45	22.15
Fall 2017	2.97	3.24	56.42	21.79
Spring 2018	2.97	3.21	56.84	21.62
Fall 2018	3.00	3.23	56.18	22.13
Spring 2019	2.98	3.25	57.07	22.31
Fall 2019	2.97	3.26	55.72	21.68
Spring 2020	3.17	3.30	56.48	21.96
Fall 2020	3.09	3.27	55.81	21.23
Spring 2021	3.08	3.33	56.69	21.51
Averages	3.00	3.23	56.53	21.87

FIGURE 1
COURSE MEAN



Correlations between academic performance in the principles of accounting course and the four measures of pre-existing academic ability were completed. While each measure is positively correlated with course grade attainment, university cumulative GPA provides the strongest relationship (Pearson Correlation=.680, p=.0000). Cumulative University and HS GPAs appear relatively stable across the semesters, with little indication of an upward trend, as has been indicated in some prior research (Sanchez & Moore, 2022). HS rank and ACT were similarly consistent, with a slight downward trend. These two systems of measurement, both being normalized or standardized gauges (not subject to potential grade divergence issues), appear to strongly suggest that students were comparable in pre-existing academic ability throughout the time horizon. Therefore, we conclude that the student's pre-existing ability would not formulate a reasonable or plausible explanation for any identified grade diversions that may flow from our subsequent assessments.

Research Question #2: *Is there evidence of grade inflation in either the historical and/or COVID-19 timeframes?*

A comprehensive evaluation of grade inflation demands that attention be directed at three research metrics. Metric #1 considers the trend in course grades across time as reflected in course means. A general increase in course means would fit the scenario of "a rising tide floats all boats" and represent a clear indicator of grade diversion. Metric #2 addresses any variation in the percentage distribution of A and B grades across semesters. The presence of a higher percentage of A and B marks for a given period would usually operate to raise the course mean. However, more importantly, it signifies a rightward shift in the traditional bell curve, a narrowing in the range of marks awarded, and a phenomenon described as grade compression (Finefter-Rosenbluh & Levinson, 2015). Metric #3 focuses attention on recorded F and W marks. Through a percentage lens, awarding fewer F course grades and recording a reduced number of administrative actions (W) would provide evidence in favor of a growing inclination for registered students to obtain passing (D or above) final course grades. Such an outcome would undoubtedly indicate grade inflation. In combination, these three approaches provide a platform for conducting a thorough assessment of grade inflation in the principles of accounting course.

Figure 2 presents the percentages for grades obtained bifurcated into historical and COVID-19 timeframes across three grading categories. Grades A and B were combined in a single category indicating

above-average performance in the class. C, D, and P outcomes are merged into a single group as a middle measure of success in the course. Generally, students are not permitted to take this course using a Pass / No Pass classification; however, during the first semester of the COVID-19 crisis (spring semester 2020), this option was made available to ensure a smoother transition for faculty and students. A limited number of students chose this pathway, all electing this route received a P final course grade. These outcomes are difficult to assess within a regular grading pattern as the only absolute is that a P is awarded for work that would have been granted a C or higher grade using the typical grading metrics. An analysis of the students selecting this performance measure by cumulative university GPA (a strong predictor of course grades) reveals a broad distribution across wide variation ranging from 2.35 to 4.00. Those choosing this grading process would likely have been dispersed equally across the two successful grade categories; however, to limit any unintended impact on our grade inflation analyses, all P grades were placed in the middle measure of the success category. The non-success outcomes of F and W were combined.

There is a significant increase in A/B grades being awarded during the COVID-19 timeframe when compared to the historical era. Sixty-five point five two (65.52) percent of the grades earned during the COVID-19 semesters fit into this category, a substantive increase (+15.87%). Grades appear to have migrated from the C/D/P middle category toward higher outcomes. Concurrently, a substantial decrease in F/W marks is apparent, with 11.38% of marked outcomes fitting into this bracket during the COVID-19 semesters, a decrease (-4.47%) not on the magnitude of the change in A/B grades but noteworthy. Combining the course mean and grade distribution findings, asserting strong evidence of marginal grade inflation during the COVID-19 disturbance is reasonable.

Research Question #3: *Does faculty appointment status portend differences in either grade inflation or grade distribution time across time?*

For most of the 20th century, full-time, tenure-track appointments have represented the prevailing model for American universities. This prototypical employment arrangement has changed dramatically over the last four decades (Kezar, 2013). Adjunctivitis is the expression that has evolved to encapsulate the phenomenon whereby fixed-term or adjunct contracts are increasingly utilized to serve classroom needs (Fruscione, 2014). This expanding trend can dramatically alter the power dynamics in a university's working environment, depending upon the relative percentage ratio of such appointments at a given institution. What is unquestionably certain is that fixed term and adjunct faculty occupy a lower status in this faculty dichotomy and, at the same time, likely face a somewhat inferior position concerning students who are increasingly viewed from the customer perspective.

Several researchers have examined the relationship between appointment status and various demographics of university instructors (Moore & Trahan, 1998; Kezim et al., 2005; Novell, 2007). Research questions tend to focus on years of experience, job security, and student evaluations, surmising that incentives exist for less permanent faculty, increasing the likelihood that they will operate in a dysfunctional manner concerning grades. As the utilization of fixed-term and adjunct appointments has increased, coupled with a reliance on student evaluations as customer satisfaction measures, the behavior of less enduring faculty within the university academy and their impact on grades becomes an increasingly critical issue that can be informed and perhaps influenced through empirical assessments.

FIGURE 2
GRADE GROUPS

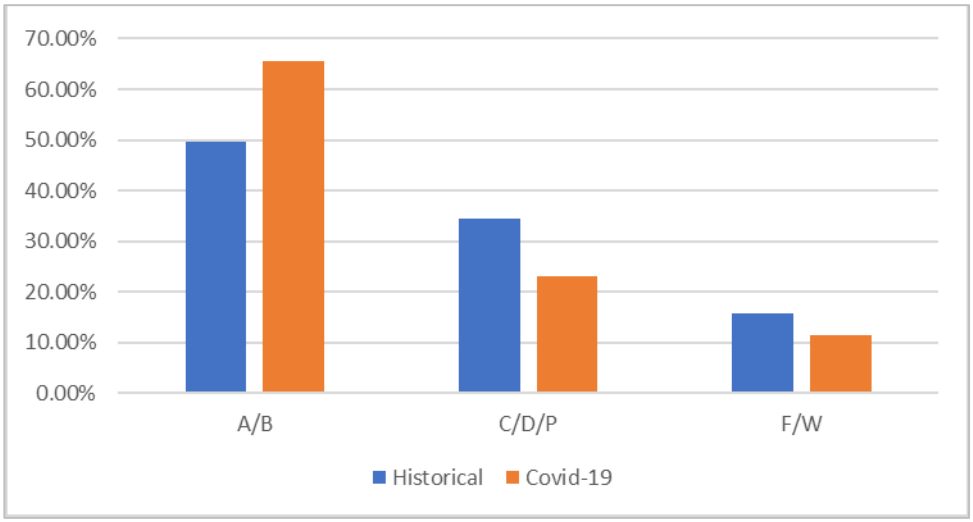


Figure 3 presents course means across our research time horizon with tenured and tenure-track appointments contrasted with fixed-term and adjunct faculty. The temporary faculty cohort consistently awarded higher course means across the time horizon, except for the three COVID-19 semesters. Quite interestingly, tenured and tenure-track faculty appear to have granted higher course grades during the COVID-19 timeframe, when university and COB administrators delivered a clear and unequivocal message that students should be given all pathways to success. It is plausible and reasonable to pontificate that the former group did not receive this message as distinctly and acted less tolerantly in their grading practices. For permanent faculty, there is an upward trend in grading over time, a finding that is indicative of grade inflation. Fixed-term and adjunct faculty vacillate considerably, ending in the final semester precisely where they started in the first semester.

Course grades in groups by instructor type are proffered in Figures 4 and 5. There was a significant increase (+23.65% and +15.08%) in A/B grades relative to the historical average for both faculty categories, with each group exhibiting a noticeable expansion of use. Concurrently, a substantive decrease (-8.62%) in recoding F/W marks for permanent faculty is evidenced, while fixed-term and adjunct faculty revealed a steadier pattern. Combining these findings, course mean and grade distributions, an assertion that tenured and tenure-track faculty exhibit more grade inflation behavior is supported for both timeframes – they lead the way in historical trend and marginal grade diversion behavior. Concurrently, there is more mixed evidence regarding fixed-term and adjunct faculty; however, for all three evaluation points, this faculty group does not encourage grade inflation in a manner that can be deemed excessive to that of their cohort. The conclusion is that the less permanent faculty do not exhibit more grade inflationary behavior when compared to their more permanent cohort.

FIGURE 3
COURSE MEAN BY INSTRUCTOR TYPE

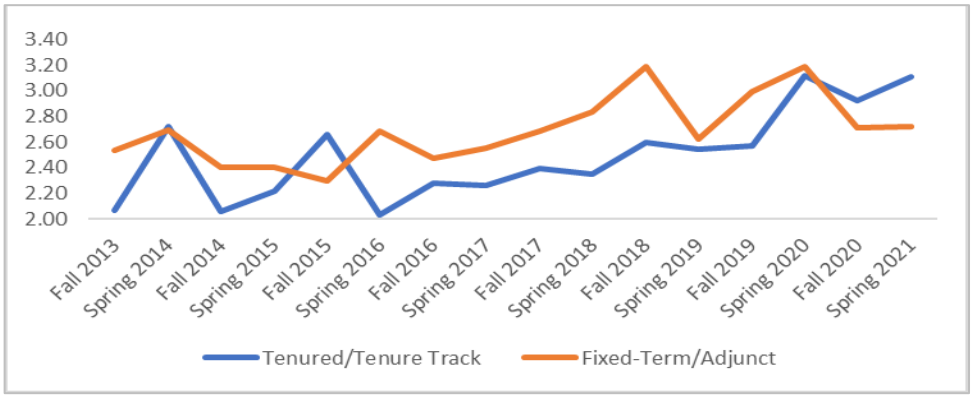


FIGURE 4
GRADE GROUPS BY TENURED TENURE-TRACK

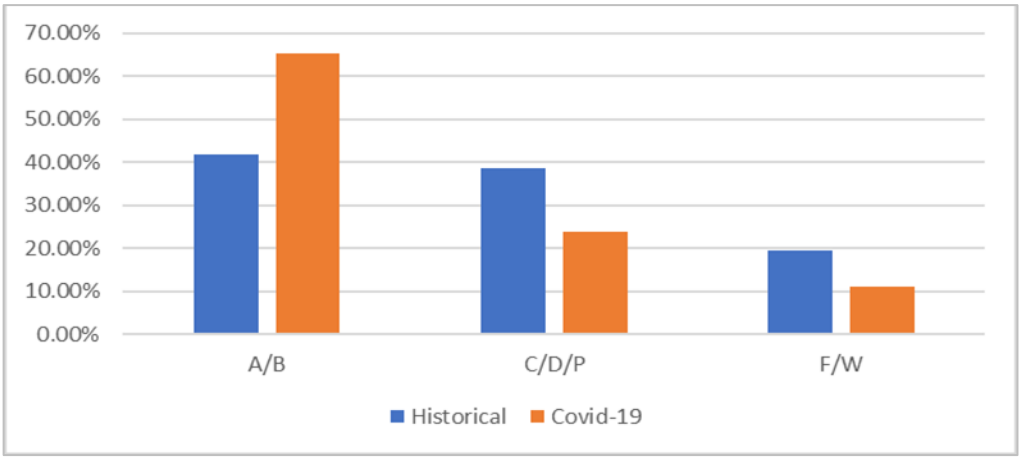
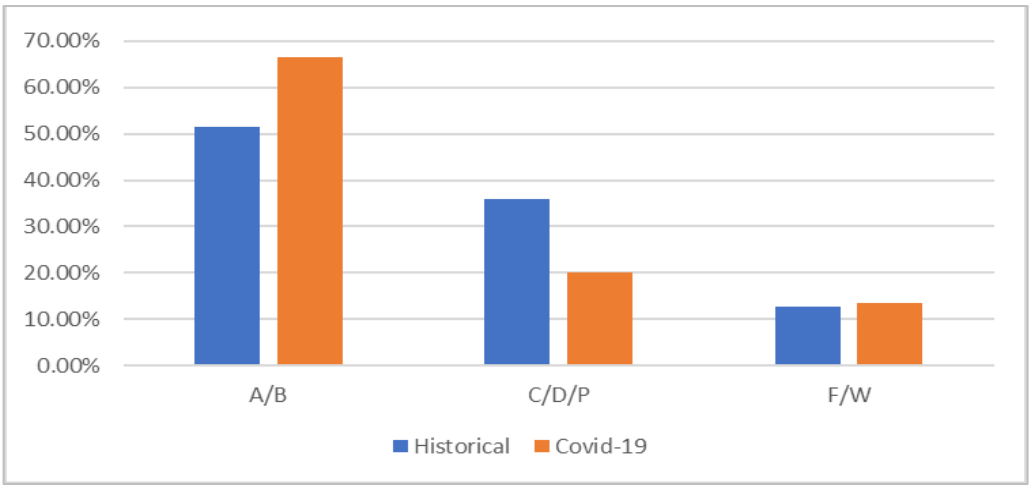


FIGURE 5
GRADE GROUPS BY FIXED-TERM/ADJUNCT



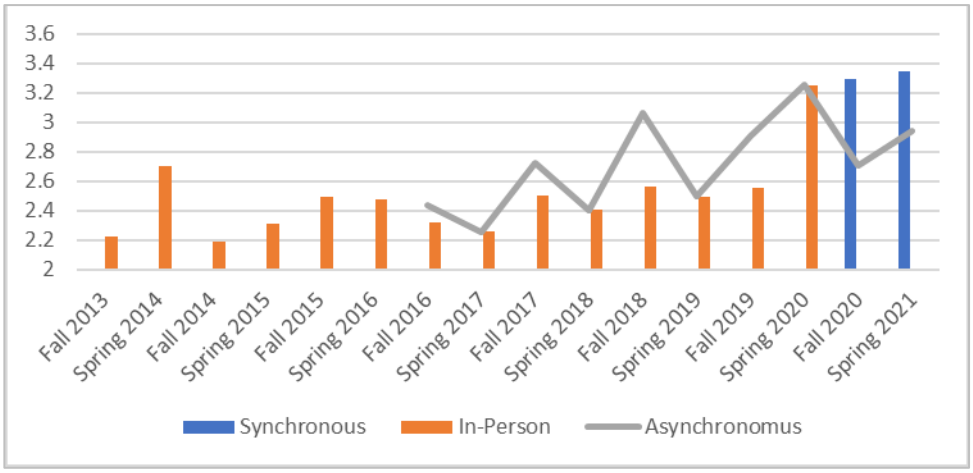
Research Question #4: *During the three COVID-19 semesters, did the course delivery method exacerbate or otherwise impact historical grade inflation?*

Course delivery modalities experienced great upheaval with the entrenchment of the COVID-19 pandemic during the spring 2020 semester. Much of the technology and faculty capabilities necessary to successfully implement synchronous course delivery systems were only in place for some, if not most, institutions. This void led to a cacophony of experimental teaching methodologies, some better, some worse, but all representing a best-efforts approach. Much was accomplished, but more was required as the pandemic persisted into the new academic year. Over the summer of 2020, substantive investments in technology (hardware) were completed, preparing classrooms to recognize the uncertainty that portended the coming academic year.

Figure 6 presents the course mean by teaching modality across time. Asynchronous delivery of the principles of financial accounting course commenced in the fall semester of 2016, while synchronous was first offered as the COVID-19 disruption became entrenched. Synchronous was supported with Zoom technology in on-campus classrooms (termed HyFlex). From a practical standpoint, this meant that students could come in person to the classroom (maintaining safe distancing practices) or attend remotely via a Zoom connection into the classroom. They could choose their delivery method with each class meeting, having great flexibility should COVID-19 issues present themselves personally or on a larger scale.

Entirely in-person course means appear relatively steady, exhibiting no grade inflation trend across the historical era before a significant upward jump with the first COVID-19 semester. This later finding is attributed to lenient grading practices as the campus community attempted to accommodate students as they first faced the challenges of an evolving pandemic and a rapidly closing campus. For the fall semester of 2020 and spring semester of 2021, as course delivery became Zoom-oriented (synchronous) with limited in-person, on-campus activity, the increase in grades witnessed for the immediately prior semester continued largely unabated with relatively equivalent course means. Asynchronous classes were offered across both the historical and the COVID-19 timeframes. They reveal an interesting chart with considerable variance, an upward grade inflation trend and a strong suggestion of seasonality with higher course mean apparent for fall semester classes. The results suggest that course grade distribution differs considerably between in-person and online courses.

FIGURE 6
COURSE MEAN BY MODALITY



Research Question #5: *Does grade inflation, either historical or COVID-19 marginal, differ across DEIB groupings? Are certain groups of students susceptible to grade inflation's positive or negative impacts?*

Grade inflation has significant potential to be a critical and substantive issue for numerous DEIB groups. Several authors have commented on the enormous societal impacts that can accompany upward-grade diversion. Awarding of higher grades "tend(s) to favor the already-privileged, and thus exacerbates existing inequities and injustices" (Finefter-Rosenbluh & Levinson, 2015, p. 10). This behavior "may increase social disparities and inequalities, as students who can afford to attend … schools or universities … that award comparatively higher grades will achieve unearned advantages in college and graduate admissions" (Chowdhury 2018, p. 89). Moreover, arguably of most importance to those who seek to eliminate educational opportunity gaps, the presence of grade inflation advocates for the beneficiaries of such outcomes by granting "better opportunities in the job market, which enhances social disparity and socioeconomic inequality" (Chowdhury, 2018, p. 89). Grade inflation will not provide fuel or forge a pathway toward resolving social inequalities; it is more likely to exacerbate or confound the existing issues. Therefore, it is essential to consider differential impacts that may be evident across various DEIB groups of students.

Percentage counts for the five DEIB groupings placed in consideration are offered in Table 2. Self-identified females constitute 32.36% of the total observations; students of color report 14.85%; international students are represented in 8.47%; the attribute first generation is present for 38.44% of the total observations; and under-represented is reported for 44.75%. As should be expected, a student may be present in more than one of the DEIB groupings. For self-identified females, international students, and the underrepresented groups, each exhibits a varying but relatively consistent pattern across time with no identifiable trend suggesting an increase or decrease in enrollment. Students of color have increased through the years, while first-generation (federal) students (as defined by the university) appear to be trending downward.

Table 3 summarizes the relative changes evidenced for each grade distribution and diversion metric. Each DEIB group, with a minor exception for first-generation students, benefited relative to the pool of observations, witnessing GPA increases more than those identified for all observations. For the A/B grade group, all DEIB classifications exceeded the changes evident for all observations set. Concerning the F/W grade group, each DEIB class outperformed all observations, except for international students who did not present as significant of a decrease. Several of the distinctions across the metrics are substantial, but what is impressive is the degree to which each DEIB appears to have not been disadvantaged by COVID-19-related marginal grade inflation.

TABLE 2
DIVERSITY, EQUITY, INCLUSION, AND BELONGING
DEMOGRAPHIC CHARACTERISTICS

Academic Semester	Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
Fall 2013	36.89%	11.82%	6.22%	37.96%	45.61%
Spring 2014	29.35%	12.56%	5.47%	44.04%	46.00%
Fall 2014	28.45%	12.54%	7.18%	41.39%	46.38%
Spring 2015	35.02%	16.67%	7.74%	46.45%	51.88%
Fall 2015	28.79%	13.76%	8.79%	40.95%	51.44%
Spring 2016	29.52%	12.88%	9.34%	46.52%	45.42%
Fall 2016	30.14%	13.11%	9.09%	40.69%	45.33%
Spring 2017	31.81%	16.12%	7.01%	40.00%	45.45%
Fall 2017	32.61%	13.66%	7.88%	38.02%	43.32%
Spring 2018	36.05%	17.19%	11.25%	40.97%	49.59%
Fall 2018	29.12%	15.72%	10.82%	38.95%	44.86%
Spring 2019	33.05%	15.56%	7.45%	31.56%	41.37%

Academic Semester	Self-Identified Females	Students of Color	International Students	First Generation Students (Federal)	Underrepresented Students
Fall 2019	34.04%	17.61%	10.77%	37.35%	43.07%
Spring 2020	34.35%	13.23%	9.92%	29.09%	39.34%
Fall 2020	32.35%	16.30%	8.56%	38.02%	44.97%
Spring 2021	36.36%	16.35%	5.73%	30.51%	37.50%
Total	32.36%	14.85%	8.47%	38.44%	44.75%

Self-identified females represent a DEIB group of considerable interest to accounting educators and the profession. This issue of gender representation in professional accountancy is well described and documented in many other published studies. Suffice it to say that substantial effort has been directed at, and much has been accomplished regarding, increasing the presence of these valued members of our community, and all interested parties have a great desire not to see this tremendous progress over the past several decades retreat in any manner.

Figures 7A and 7B present course outcomes for this demographic group. Historically, self-identified females outperform others in the class, and this trend is undoubtedly confirmed and evident in the course mean data. Both parties to this dichotomy exhibit a grade inflation trend in their respective timelines. Further, during COVID-19, self-identified females experienced a jump in course mean. They showed higher attainment of A and B outcomes (more than reported for all observations) but only experienced a marginal decrease in F and W marks (comparable to that indicated for all observations). These findings concerning self-identified females present evidence of a positive marginal grade inflation impact compared to all registered students during COVID-19. There is no evidence to support a declaration that self-identified females were impacted in a manner inconsistent with their contemporaries.

TABLE 3
RELATIVE DIFFERENCES IN GRADE ATTAINMENT BY DEMOGRAPHIC CHARACTERISTICS

	Historical GPA	Covid-19 GPA	Difference	Historical A/B	Covid-19 A/B	Difference	Historical F/W	Covid-19 F/W	Difference
All Observations	2.53	3.00	0.47	49.65	65.52	15.87	15.85	11.38	(4.47)
Self-Identified Female	2.59	3.15	0.56	49.57	68.97	15.40	15.40	10.74	(4.66)
Student of Color	2.13	2.72	0.59	31.24	54.30	24.47	27.47	16.67	(10.80)
International Student	2.78	3.33	0.55	59.57	77.55	13.83	13.83	5.10	(8.73)
Underrepresented Student	2.32	2.87	0.55	38.94	59.07	21.14	21.14	12.95	(8.19)
First Generation	2.45	2.91	0.46	44.78	61.99	18.03	18.03	12.76	(5.27)

FIGURE 7A
COURSE MEAN BY SELF-IDENTIFIED FEMALE

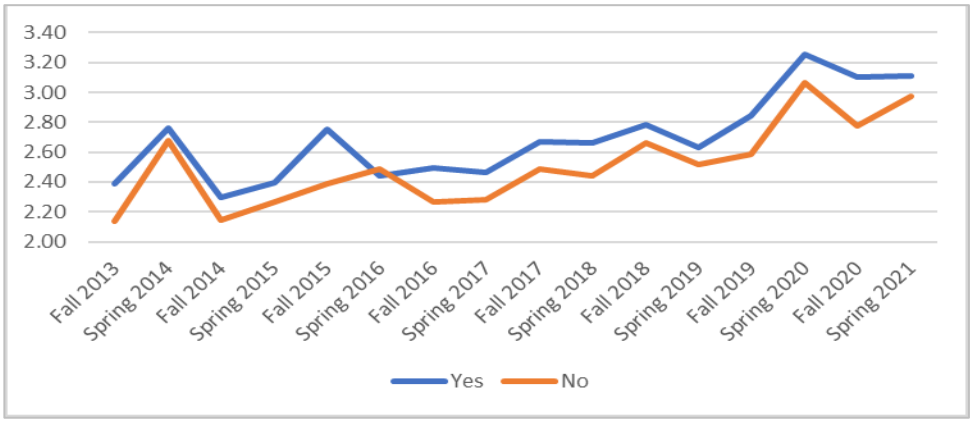
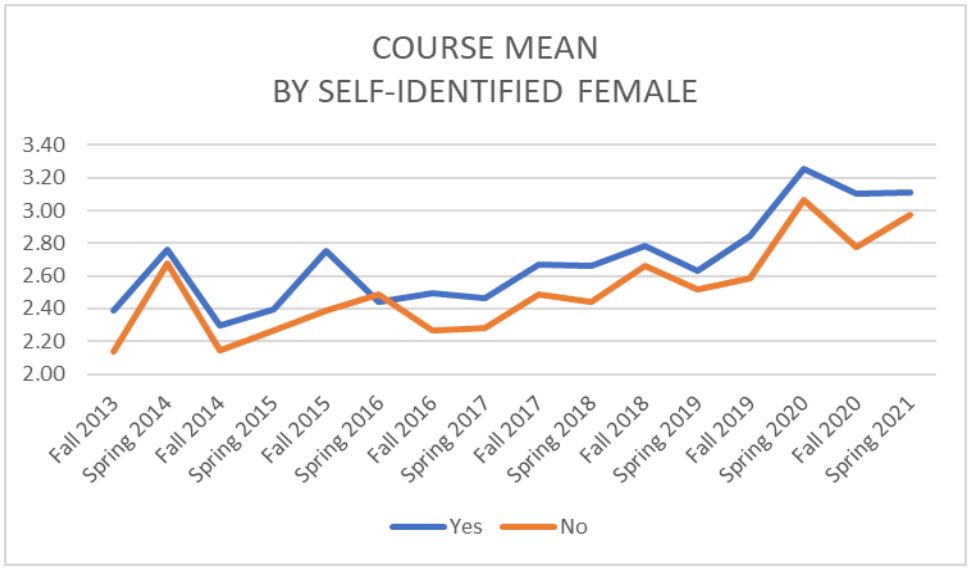


FIGURE 7B
GRADE GROUP BY SELF-IDENTIFIED FEMALE



Figures 8A and 8B inform course outcomes for students of color. This cohort of interest has a well-documented record of lower academic achievement in the principles of accounting course across time. The data confirm this assertion with all semester course means revealed below the cohort group. The temporal mean data exhibit a grade inflation trend alongside comparable marginal grade inflation increases across the three COVID-19 semesters. A/B group grades were elevated (+0.59%), and F/W marks declined (-10.80%). This later finding is significant as it indicates that students of color benefited somewhat during the COVID-19 timeframe, exhibiting a decrease in non-success outcomes that exceeded twice that of all observations. Students of color were not placed in a non-preferred position relative to the other cohorts during the disruption.

FIGURE 8A
COURSE MEAN BY STUDENT OF COLOR

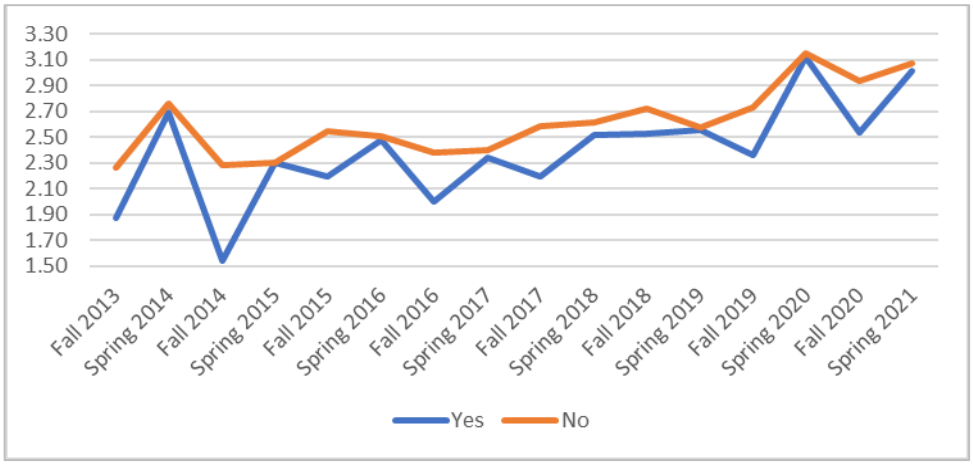
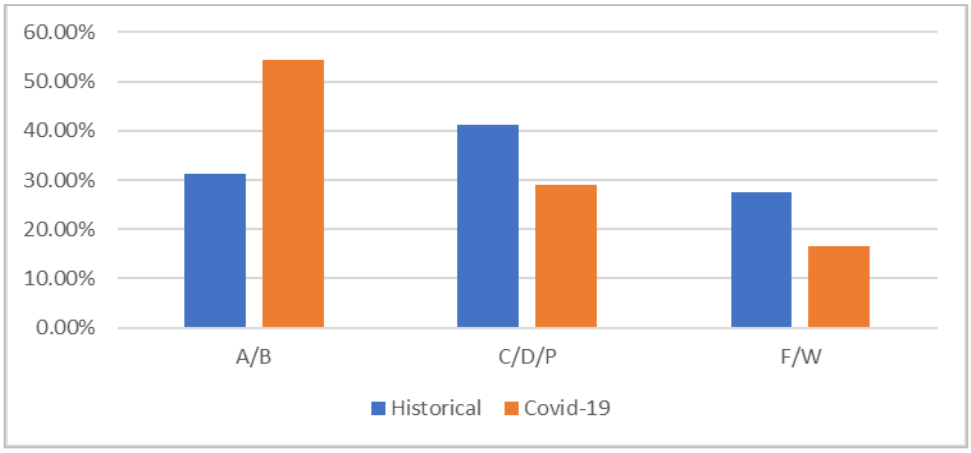


FIGURE 8B
GRADE GROUP BY STUDENT OF COLOR



Figures 9A and 9B offer course outcomes for international students. This DEIB group has a history of higher academic achievement for the principles of accounting course across time, which is confirmed. The temporal data exhibit a trend of grade inflation and comparable marginal grade inflation increases for the three COVID-19 semesters. A/B group grades increased (+0.55%) while F/W dropped (-8.73%). The former finding aligns with that for all observations, while the latter is significantly enhanced, indicating relatively more success in completing the class requirements during the pandemic. International students were more restricted in their ability to leave campus and return home, and this proximity to university resources may account for this outcome. There is no evidence to support the conclusion that international students experienced an elevated negative grade divergence position relative to that of their classmates.

FIGURE 9A
COURSE MEAN BY INTERNATIONAL STUDENT

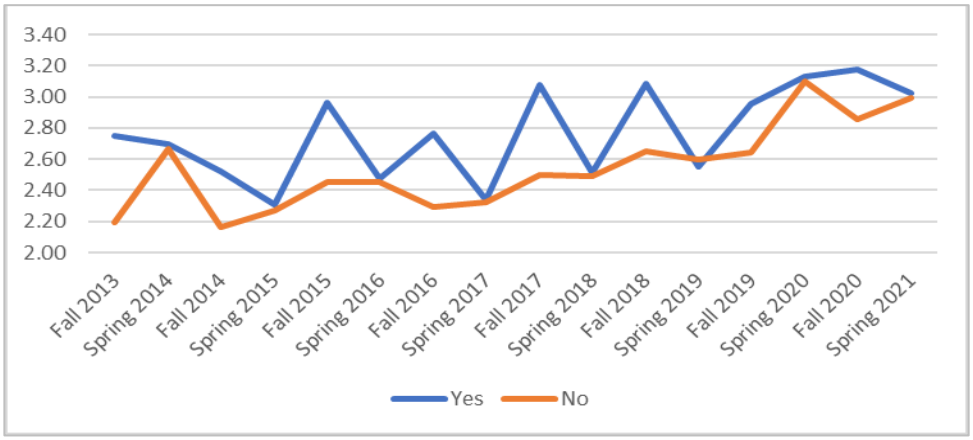
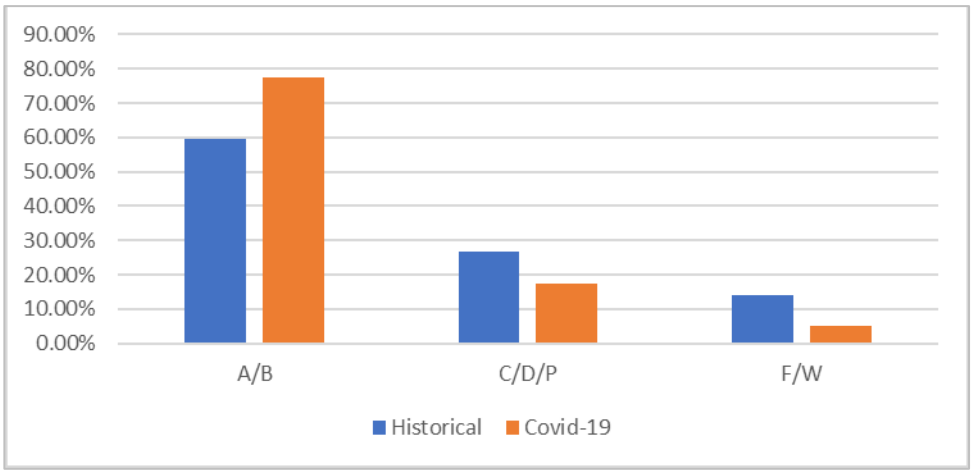


FIGURE 9B
GRADE GROUPS BY INTERNATIONAL STUDENT



Figures 10A and 10B report course outcomes for underrepresented students. The temporal data exhibit a consistent pattern for both cohorts with limited marginal grade inflation. Students identified as underrepresented perform in a consistently deficient manner compared to non-underrepresented students. A/B group grades increased (+0.55%) for this cohort, while F/W marks declined (-8.73%). More success is observed and confirmed, as evidenced by course completion. There can be no conclusion that underrepresented students have been placed in a disadvantageous position concerning grade inflation.

FIGURE 10A
COURSE MEAN BY UNDERREPRESENTED STATUS

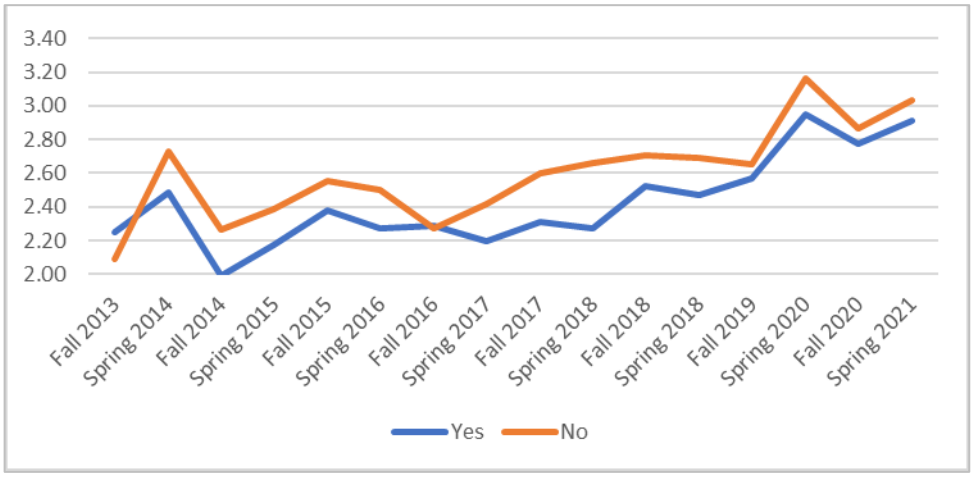
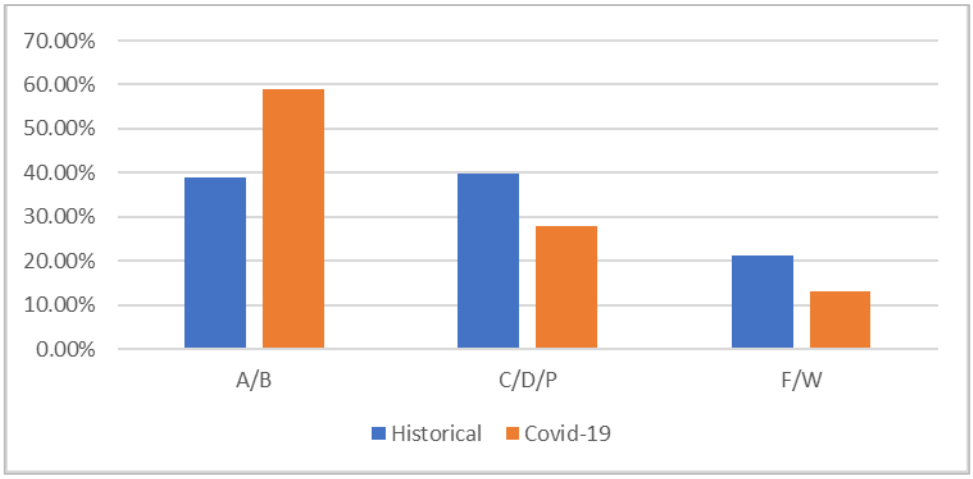


FIGURE 10B
GRADE GROUPS BY UNDERREPRESENTED STATUS



Figures 11A and 11B inform course outcomes for first-generation students. The temporal data exhibit a trend of grade inflation and comparable marginal grade inflation increases for the three COVID-19 semesters. A/B group grades rose (+0.46%) while F/W declined (-5.27%). Each was in line with the movements observed for all observations. There is no evidence to support a declaration that students identified as first-generation were impacted in a manner inconsistent with that of their contemporaries.

FIGURE 11A
COURSE MEAN BY FIRST GENERATION STATUS

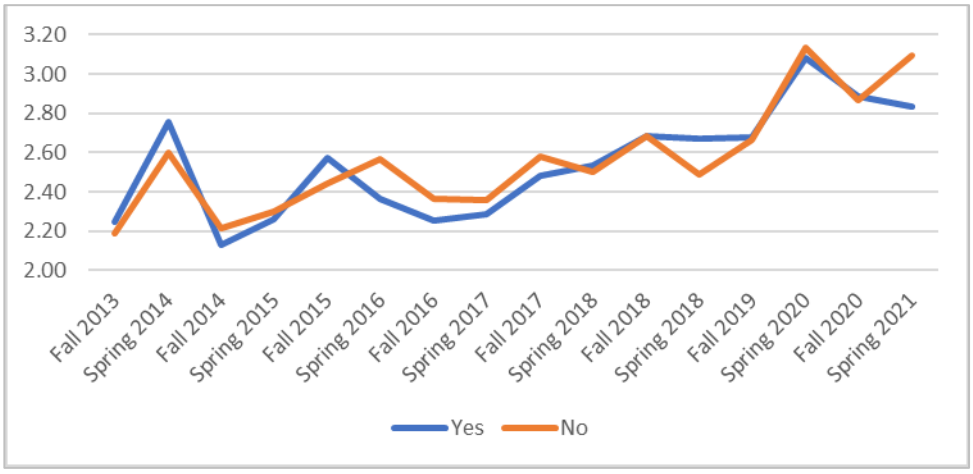
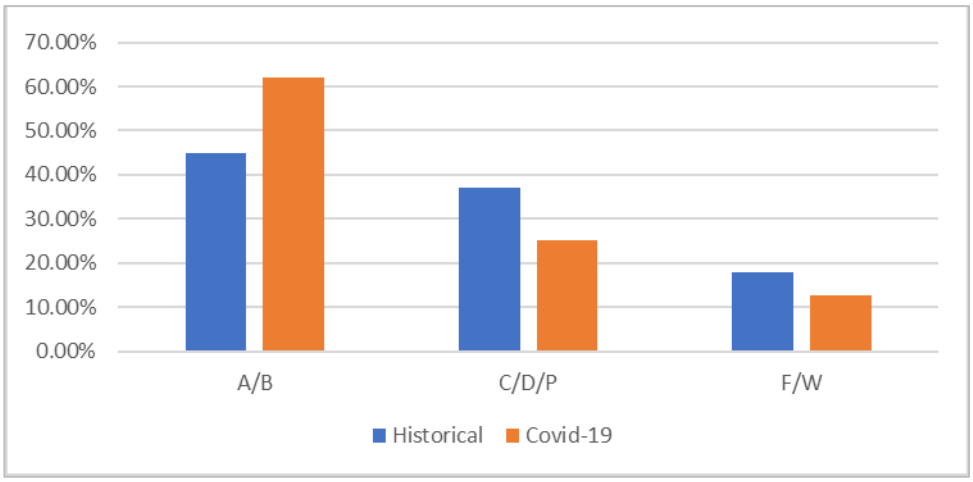


FIGURE 11B
GRADE GROUPS BY FIRST GENERATION STATUS



DISCUSSION AND LIMITATIONS

This study adds to the existing literature in several distinct and meaningful ways. First, the findings presented provide clear and convincing evidence of historical grade inflation across an extended period, including a time of significant and consequential disruption, and amongst several different course delivery methods and student demographic dimensions. Second, a single undergraduate principle of financial accounting course that had yet to be considered in prior research was investigated. Third, robust evidence of grade divergence during the three semesters of the COVID-19 disruption was offered. Further, as predicted, this was accompanied by preliminary support for a return to normal grade inflation post-pandemic, as presented in Figure 1. Finally, empirical consideration of learning gaps amongst DEIB groups is increasingly essential for higher learning institutions as they implement, extend, and improve their efforts with these initiatives. Research within and between these sub-groups is necessary as a platform to focus further attention and efforts directed at eliminating barriers that present challenges for specific identifiable populations to advance discussions on long-term solutions.

As with all studies, the findings may be specific to the institution, its student body, and the population studied. First, generalizing the results to other institutions should be carefully considered. To the extent that a given institutional environment mirrors that of a midwestern university with a largely rural student body, the findings may provide significant evidence. On the other hand, a large metropolitan institution, with a sizable portion of the student body entering from an urban background and presenting significant racial diversity, should be careful. The best way for the findings to confirm applicability is for a similar study to be conducted at such a location as the archival data evaluated here are generally available within institutional environments. Third, replication of this paper and its research methodology is encouraged where structured instructional techniques have been applied to the target course. Any intervention in the learning process is worthy of evaluation, and assessments represent best practices in project management. Finally, as we progress through post-pandemic semesters, additional observations will become accessible, providing more power to the assessments of grade inflation and an opportunity to evaluate post-pandemic grading more fully, which is our intent.

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