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Staring into the abyss: Does accounting face a looming enrollment crisis?*

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ABSTRACT

Leaders in higher education have predicted that declining birth rates since 2008 will lead to an enrollment cliff in higher education in which enrollment rates, which have steadily increased for decades, will reverse directions. Because many university budget models are predicated on increases to tuition, changes to this model can be catastrophic for universities that fail to plan ahead. We review recent trends in accounting degrees awarded, both individually and in comparison to other business school and university degree awards, to better understand how accounting is positioned relative to other degrees in higher education in the lead-up to this enrollment cliff. We review public data from the National Center for Education Statistics and find that accounting degrees awarded in the United States have steadily decreased since 2015. This decrease has occurred across institution types and demographic characteristics, indicating that there are fundamental issues with accounting that need to be addressed. Although the profession has taken some initial steps to encourage more students into the field of accounting, such as making changes to licensure procedures and requirements and encouraging accounting programs to seek out STEM designation, more measures may be needed for the supply of accountants to keep pace with future expected demand.

1. Introduction

In recent years, the accounting profession has sounded an alarm regarding the declining number of accounting graduates (Burke & Polimeni, 2023; Foley, 2024). In this paper, we investigate current United States (U.S.) enrollment trends in accounting and compare them to the enrollment trends for other business programs and all other university degrees combined to provide evidence about whether the recent declining enrollments are specific to accounting or part of a broader concern in higher education. We further examine differences across various individual demographic and institutional characteristics. Although others have studied the impact of enrollment trends in accounting, we are not aware of prior research that compares trends in accounting to other business or university degree trends. This information is important for accounting departments and for public and private sector firms that hire accounting graduates because it will help these groups to better plan and prepare for the future by allowing them to either identify and implement new ways to market and attract future students or to adjust current budget and hiring models to account for future enrollment decreases. The comparison with other university degrees also helps these stakeholders to identify whether the enrollment concerns are part of a broader educational concern or more specific to the accounting discipline.

The concern about future enrollment declines is relatively recent, though it is not unique to the accounting discipline. Through the 20th and early 21st centuries, enrollment in higher education in the U.S. steadily increased.¹ The increase can be attributed both to a growing population, driven by birth rates and immigration rates that exceed their corresponding death and emigration rates, as well as an increase in the percentage of individuals choosing to pursue a college education (Copley & Douthett, 2022). Higher education budget models have historically relied on these increasing enrollment numbers to support and expand the scope of their services offered (Engler, 2021). In recent years, however, higher education officials have sounded an alarm regarding a looming enrollment cliff that will reduce enrollment numbers and reverse the historic trend (e.g., Kline, 2019). Much of the enrollment cliff

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¹ According to information obtained on September 22, 2023 from the United States Census Bureau: https://www.census.gov/data/tables/time-series/demo/school -enrollment/cps-historical-time-series.html.

problem derives from a decreasing U.S. birth rate triggered by the recession of 2007–2009. During the three decades prior to 2007, birth rates remained steady; from 2007 to 2020 they fell approximately 20 % (Kearney et al., 2022). In addition to a decreasing birth rate, declines in immigration and potential decreases in the percentage of high schoolers attending college may also have an impact (Copley and Douthett, 2020; National Center for Education Statistics (NCES)., 2023) on future college enrollment numbers.

Universities as a whole as well as individual departments and disciplines must be prepared for the impacts of this looming enrollment cliff. However, demographic and geographic differences among students and universities may cause the impact to be felt more acutely at certain institutions and within certain disciplines. For instance, the percentage of college-eligible students who matriculate through higher education programs grew significantly more for women, Blacks, and Hispanics when comparing the postmillennial generation (1997–2012) to preceding generations (Copley & Douthett, 2020). Additionally, current enrollment projections across the United States show differences by region (Copley & Douthett, 2020), type of institution (Barshay, 2018; Douglas-Gabriel, 2021), and proximity to large metropolitan centers (Barshay, 2018).

In addition to differences based on demographics or geography, there may be cultural, economic, or programmatic factors that lead to varying enrollment impacts among disciplines. For example, recent political debate in the United States regarding student debt has heightened awareness of the disparity in the economic value proposition of various college degrees (Amselem, 2023; Brink 2022; Carnevale et al., 2022; Jones, 2018). This increased awareness may shield disciplines that are deemed more economically valuable from increased enrollment attrition relative to those perceived as less economically viable. Alternatively, a strong labor market may incentivize potential students across all disciplines to forego college for immediate entry into the workforce, or to select degrees that minimize the amount of time and effort required so that they can enter the workforce more quickly.

An accounting degree has long been viewed as marketable, and graduates from accounting programs have high job placement rates after graduation (NCES, 2022a). Current projections of future job availability indicate that accounting and auditing degrees will continue to be in demand for the foreseeable future, as they are expected to grow 6 % from 2021 through 2031 (BLS, 2022). Additionally, the attainment of a degree often remains a necessary step for employment as an accountant.² These are factors that could protect accounting departments from experiencing significant enrollment declines. On the other hand, there are warning signs that accounting programs may be exposed to the same enrollment risks as other programs. Increases in technological innovation and globalization have impacted entry-level accounting jobs, and larger accounting firms have shifted entry-level accounting work to offshore hubs (Herbert et al., 2021). Additionally, the emergence of more complex accounting systems has increased the need for accounting firms to hire employees with deeper systems and analytics knowledge. If accounting programs do not adequately adapt their curriculum to meet these needs, or if they fail to produce sufficient graduates overall, firms may look to fill staffing needs via other venues; indeed, in recent years accounting firms have hired a larger percentage of new employees having degrees in areas other than accounting (AICPA, 2022).

We utilize Integrated Postsecondary Education Data System (IPEDS) data collected by the United States Department of Education's National Center for Education Statistics (NCES) to analyze trends from 2008–2021 in the number of undergraduate accounting degrees

awarded at postsecondary institutions. Our approach is similar to that of the AICPA's Trends Report (AICPA, 2023); however, we utilize the data in accounting and compare it with the same type of undergraduate graduation data for both other business degrees and university degrees as a whole. We find several notable, and mostly worrisome, trends both in overall higher education and specifically in accounting. Accounting observed an increasing number of graduates in the early years of our sample period, which peaked in 2016. Afterward, it observed a consistent downward trend in the number of degrees awarded in the United States. More concerning may be how this trend contrasts to the enrollment trend in other business degrees over the same period. While accounting experienced negative growth, other business degrees, as well as overall university degrees, have consistently grown, albeit at a slower pace than in the past. Our findings suggest that current college students may view accounting as a less appealing degree choice relative to other options. In light of the impending enrollment cliff, this finding is more worrisome as the impacts of the enrollment cliff have not yet manifested in the data.

With a few exceptions, this downward trend is impacting enrollment across demographic groups. Enrollment trends are decreasing for both genders, as well as for those identifying as White, Black, Asian, and American Indian. The most encouraging trend is that the number of degrees awarded to Hispanic or Latino students has steadily increased throughout the sample period. While this is good news overall, the growth in accounting degrees awarded to Hispanics or Latinos has lagged the growth in other disciplines. Thus, promoting opportunities for these communities may be one avenue for accounting departments to expand their overall enrollments. There may also be opportunities for growth in accounting through significant changes such as reducing the requirements for CPA licensure. Accounting departments may also consider curriculum changes that allow them to be designated as Science, Technology, Engineering and Math (STEM) or include a greater emphasis on topics that are popular among current generations of students and employers, such as environmental, social, and governance (ESG) topics or artificial intelligence (AI) (EY, 2023).

In the following section, we discuss background literature and develop our research questions. We then discuss the data used and our methodology and follow that by reporting the results of our analysis. Finally, we discuss the implications of our findings and provide concluding thoughts, including potential avenues for future research and possible suggestions for reversing recent trends in accounting enrollment.

2. Background and research questions

Tuition is a significant source of funding for higher education, and it has taken on increased importance as universities attempt to provide more services and amenities to attract and retain students (Swartz, 2014) and as state legislatures reduce the amount of funding allocated to education (Mitchell et al., 2016; Valcik et al., 2017). There are several potential drivers of tuition revenue, such as changes in the collegeeligible population (through birth or immigration), changes in the percentage of college-eligible individuals who attend college, and changes in the price of tuition or fees. A combination of increases in these factors has generally allowed tuition revenue to grow over time (NCES, 2022b), and higher education has perhaps complacently relied on these steady increases when budgeting and planning future expenditures.

The percentage of college-eligible individuals who attend college has generally increased over time, especially among women and minorities

 $^{^2}$ A variety of jobs fall under the general category of accounting do not require a degree. However, accounting positions recognized as being above entry-level (e.g., controller, senior accounting manager, etc.) often list a CPA license as a preferred or required qualification, and all states require a college degree for licensure.

(Copley & Douthett 2020).³ However, a significant decline in birth rates following the recession of 2007-2009 has been the primary driver in a projected future enrollment "cliff" (Copley & Douthett 2020; Kearney et al., 2022). From 1980 to 2007, the birth rate in the United States held steady between 65–70 births per 1000 women,⁴ but that number decreased to 56 per 1000 in 2020-a decrease of 20 % since 2007 (Kearney et al., 2022). To put that number in perspective, the 2020 census estimated that there were 65 million women between the ages of 15-44. A decrease of 11 children per 1,000 women would equate to 715,000 fewer potential college-going citizens in 2038. As of 2019, approximately 48 % of adults ages 19 to 20 were enrolled in higher education classes. Assuming similar enrollment rates, approximately 343,000 fewer students would be enrolled across the U.S. following the decreased birth rate. Potentially more worrying is that prior research suggests that the declining birth rate has yet to show more than temporary signs of slowing (Kearney et al., 2022).⁵ In other words, birth rates continue to fall.

A decrease in enrollment is worrisome for higher education organizations due to budget systems that frequently rely on increases in tuition and fees to pay for new programs and services, in addition to the overall rising costs of university operations. Some prominent institutions have already been forced to discuss and make program cuts due to significant budget shortfalls arising, at least in part, from missed enrollment targets (Gardner, 2023). However, it is likely that these burdens, at least initially, will be unevenly distributed. For example, projections show that expected enrollment changes in various geographical regions of the United States varies from a decrease of 20 % or more in the Great Lakes region and parts of the South to an increase of 2 % in the Intermountain West and Texas (Copley & Douthett 2020).

Other factors may impact the enrollment of various institutions or departments. As tuition rates and student loan debt amounts continue to increase, there has been an increase in the conversation around the importance or viability of college degrees that have historically had a lower return on investment (ROI) based on the ratio of expected earnings to student loan debt (Vedder, 2021). The passage of the Gainful Employment regulations in 2011 under President Obama attempted to "terminate federal financial aid for programs where student debt was too high relative to income or where too few students were repaying their loans" (Gillen, 2022, 2). Although this policy was discontinued under President Trump's first term, reinstatement, in some form, was pursued by the Biden administration (Gillen, 2022). Both the Biden and second Trump administrations have targeted student loans via executive orders, suggesting this is likely to remain an issue for the foreseeable future. Webber (2016) analyzed the financial value of various college degrees and found that the median discounted present values range from \$85,000 to \$300,000. While his analysis did show that a college degree remains a net positive value for most college students, there were some circumstances in which certain degrees at high-cost institutions would rarely, if ever, reach a breakeven point from an economic perspective.⁶ Even within related degrees there can be significant differences; for instance, Carnevale et al. (2022) find that the median starting salaries from a bachelor's degree in various business disciplines ranged from \$38,400 in marketing to \$48,000 in finance and financial management services. The disparity in salaries among business master's degrees was even greater, with median earnings in human resources management at \$39,600 compared to \$80,000 for general business and commerce.

Historically, accounting degrees have been perceived as providing a worthwhile ROI due to their high job placement and the competitive salaries for new graduates (Carnevale et al., 2022; NCES, 2022a). As enrollments decline across the country, those majors perceived as having either a lower ROI–due to either a more difficult path to gainful employment or lower relative salaries–may experience a greater proportion of the decline. Accounting jobs are still projected to be in high demand in coming years, and accounting salaries are favorable compared to many other degree options; thus the projected ROI for accounting degrees may help to shelter them from decreases in college enrollment. This would be especially true for accounting programs that have instituted an enrollment cap and that currently have a surplus of demand.

On the other hand, many accounting programs encourage their students to pursue, at least initially, a career in public accounting. Public accounting firms have long had a compensation model that pays newly graduated accounting students less than what some other business school graduates earn in their first year out of college (Ellis, 2023). For instance, business majors such as business administration, finance, and management information systems have received higher starting salaries than accounting graduates in recent years (Carnevale et al., 2022). Public accounting firms have traditionally been able to overcome this starting wage barrier by promising larger and faster wage growth throughout an individual's career, but accounting enrollments may decline if students begin focusing more on starting wages than on potential future wages.

However, perceived ROI is likely only one factor that students consider when choosing a degree. Other factors, such as personal interest in the topic, are also influential. Swain and Olsen (2012) find that certain personality types are more attracted to, and more likely to remain in, accounting–both in academic and professional settings. Similarly, in a sample of introductory accounting students, Pearson and Pearson (2024) find that certain personality characteristics are predictive of intent to major in accounting. Thus, if degree decisions are largely based on personal interests or innate characteristics, we would expect any changes in birth rates to have a similar impact across disciplines unless there are shifts in these preferences or characteristics.⁷ In contrast, if students are basing degree decisions on an economic analysis of employment outcomes, we expect to observe variation among university degrees.

There are also institutional factors that may create disparities in the impact of reduced nationwide enrollment numbers. Douglas-Gabriel (2022) reports that enrollment declines in 2021 were most significant at two-year public colleges. Conversely, private four-year institutions experienced an increase in enrollments. While the impact of COVID in 2020 and 2021 may confound the interpretation of those fluctuations, they provide some evidence that certain institutions may be more at risk of feeling a greater impact of lower enrollment. Factors such as size and location of the institution, funding source (private vs. public), and academic ranking (either institutional or departmental) may all have an impact on enrollment numbers.

Based on the discussion above, and absent theory that would predict the impact of these different factors on enrollment, we ask several research questions to better understand the full enrollment impact of the

³ The college enrollment rate for high school graduates ages 16–24 has decreased in recent years (BLS, 2023). This may not indicate a change in the overall trend, but rather yearly stochastic variability or exogenous shocks from events such as COVID. Should this trend continue, however, then it may exacerbate the impact of the coming enrollment cliff.

⁴ Measure for women ages 15-44.

⁵ There have been slight increases in the U.S. birth rate since COVID, but whether this is a permanent or temporary change is yet to be determined. Even if the upward trend remains, the impact of increased birth rates won't begin to be felt in higher education for almost 20 years.

⁷ Although we do not investigate these types of shifts, there may be generational differences that have an impact on enrollments. A recent McKinsey & Company survey found that Gen Z respondents were more concerned with employment stability than were other respondents (Dua et al., 2022), and EY found that almost half of Gen Z respondents chose to pursue accounting due to its perceived stability (EY, 2023).

prior decade as higher education prepares for the oncoming demographic cliff.

RQ1: What enrollment changes have occurred in the accounting discipline from 2008 to 2021?

RQ2: How do the enrollment changes in accounting differ from other business school and general university enrollment changes from 2008 to 2021?

RQ3: What institutional characteristics have been associated with changes in enrollment from 2008 to 2021?

RQ4: What demographic factors have been associated with changes in accounting enrollment from 2011 to 2021?

3. Data

We use data collected by the United States Department of Education's National Center for Education Statistics (NCES) to evaluate enrollment trends across disciplines and demographics. The NCES conducts surveys at institutions of higher education on an annual basis, and this survey data is collected and published in the Integrated Postsecondary Education Data System (IPEDS).⁸ As part of this data collection, NCES gathers information from approximately 6400 colleges, universities, and technical and vocational institutions that participate in federal student aid programs. As per the amended version of The Higher Education Act of 1965, institutions that participate in federal student aid programs need to report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid.

Table 1 describes our sample. We begin by collecting all IPEDS data from 2008 through 2021. We select 2008 as the beginning year to avoid interpretation errors because the IPEDS database retains a consistent format subsequent to that year. We include all years through the most recently available data because we believe that a longer timeframe will

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Sample information.

Panel A: Sample selection	
	No. Obs.
University observations having IPEDS data available for degrees awarded for years 2008–2021	380,057
Less: Observations corresponding to non-baccalaureate degrees	(327,890)
Less: Duplicate observations due to students' graduating with multiple degrees	(15,622)
Less: Institutions not offering an undergraduate accounting degree	(20,384)
Less: Observations outside 50 U.S. states and District of Columbia	(529)
Less: Institutions lacking yearly data for full sample period	(3,536)
Less: Two-year and other community colleges	(28)_
Final sample	12,068
Danal D. Comple composition by Composite algoritheation	

Panel B: Sample composition by Carnegie classification

	University- years	Unique universities
Doctoral universities	3,906	279
Master's colleges and universities	5,516	394
Other four-year institutions	2,646	189
Total	12,068	862

Table 1, Panel A presents sample selection procedures and the number of observations excluded after each procedure. Panel B describes the composition of the final sample, indicating how many observations represent doctoral universities, master's granting universities, and other four-year institutions. provide greater insight into trends over time. Additionally, because we are looking at graduation data as a proxy for enrollments, we expect that any impact from the COVID pandemic on enrollments will be insignificant for those students close to graduation.

As our proxy for enrollments, we use data on the number of undergraduate degrees awarded. Although the degrees awarded measure lags initial enrollment, the lag period is relatively short (4–5 years on average) and allows us to identify students in specific degree programs. Institutions report enrollments to IPEDS by degree program using Classification of Instructional Program (CIP) codes as defined by the Department of Education. Each code consists of a two-digit prefix identifying a broad subject area and a four-digit suffix identifying a program type. We identify accounting programs as those having a CIP code of 52.0301.⁹ We identify business programs as those having 52 as the CIP code prefix.¹⁰

For an observation from IPEDS to be included in our sample, we limit our data to universities in the United States¹¹ that offer undergraduate accounting degrees and require that reporting institutions provide degree data over the full sample period. We restrict our analyses to institutions in three categories of Carnegie Classification: Doctoral Universities (classification codes 15–17), Master's Colleges and Universities (classification codes 18–20), and Other Four-Year Institutions (classification codes 14, 21–32). We identify an institution's Carnegie Classification using the publicly available classifications data file from the Indiana University Center for Postsecondary Research (2021). Our final sample includes 12,068 observations representing 862 institutions.

Our primary variables of interest are the number of accounting degrees awarded (*Acct*), the number of business degrees awarded (*Bus*), the number of university degrees awarded (*Univ*), the number of business degrees awarded after excluding accounting degrees (*XBus*), and the number of university degrees awarded after excluding business degrees (*XUniv*).

We examine our primary variables along multiple dimensions. In Table 2, Panel A, we provide descriptive statistics for these variables for the full sample. The mean and median number of accounting degrees awarded (*Acct*) per institution per year were 50.43 and 25.00, respectively. In Panel B, we re-examine the descriptive statistics across institutions having different Carnegie Classifications. The average number of accounting degrees awarded per institution per year was highest among doctoral universities (89.36) and lowest among four-year colleges (16.34). Similarly, the average total number of university degrees awarded was higher among doctoral universities (2,691.86) than among four-year colleges (337.12).

⁹ While 52.03xx includes several other accounting programs, we limit our analysis to 52.0301 because the other programs appear to mix accounting with other subdisciplines such as finance, management, information technology management, and others. We are interested in the attractiveness of a general accounting major; thus, we focus on 52.0301. Notably, some institutions have recently adopted STEM-designated CIP codes to attract more students. As of January 2023, which is after our sample period, the AICPA listed 53 STEM-designated accounting programs that had adopted a STEM designation (AICPA & CIMA 2023b). With two exceptions (University of Southern California and University of Northern Iowa), the listed universities appear to have only updated their graduate accounting programs as of that date. Both university exceptions having STEM-designated undergraduate programs are included in our sample and appear over the full sample period, suggesting they changed their CIP code subsequent to our sample period.

¹⁰ CIP prefix 52 corresponds to 'Business, Management, Marketing, and Related Support Services.' It includes general business, operations and management, business communications, business economics, entrepreneurship, finance, hospitality management, human resource management, international business, management information systems, management science and quantitative methods, marketing, real estate, and telecommunications degrees.

¹¹ Including the District of Columbia but excluding all territories and commonwealths.

⁸ This data is publicly available at https://nces.ed.gov/ipeds/use-the-data.

Descriptive statistics, ann	ual averages per institution.
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Panel A: Degree completion summary statistics for full sample (2008–2021)								
	Mean	S.D.	10 %	25 %	Med.	75 %	90 %	
Levels variables ($N = 12,068$)								
Univ	1,365.38	1,766.70	203.00	334.00	662.50	1635.00	3,532.00	
Bus	284.85	371.46	37.00	66.00	143.00	359.25	704.30	
Acct	50.43	64.59	5.00	11.00	25.00	65.00	132.00	
XBus	234.42	317.83	28.00	52.00	115.00	288.00	578.30	
XUniv	1,080.54	1,447.84	149.00	251.00	505.00	1,271.00	2,814.30	
Growth variables ($N = 13$)								
∆AggUniv	0.021	0.008	0.015	0.017	0.018	0.024	0.031	
∆AggBus	0.014	0.017	0.000	0.001	0.016	0.030	0.034	
∆AggAcct	0.004	0.032	-0.028	-0.024	-0.001	0.020	0.051	
ΔAggXBus	0.016	0.019	0.005	0.001	0.021	0.030	0.038	
$\Delta AggXUniv$	0.023	0.012	0.014	0.015	0.020	0.025	0.038	
Panel B: Degree completion summary statistics by Carnegie Classification (2008–2021)								
- *	Doctoral Univer	sities	Master	Master's Colleges			Other Four-Year Colleges	
	Mean	S.D.	Mean	- S.D.		Mean	S.D.	

	Mean	S.D.	Mean	S.D.	Mean	S.D.
Levels variables	Levels variables (N=3,906)		(N=5,516)		(N=2,646)	
Univ	2,691.86	2,342.43	919.33	965.92	337.12	349.76
Bus	517.59	442.49	217.03	306.98	82.64	115.92
Acct	89.36	76.43	39.21	54.97	16.34	21.12
XBus	428.23	379.94	177.83	266.10	66.30	98.26
XUniv	2,174.27	1,953.66	702.30	726.50	254.48	283.42
Growth variables	(N=13)		(N=13)		(N=13)	
∆AggUniv	0.025	0.007	0.016	0.015	0.005	0.016
∆AggBus	0.019	0.019	0.008	0.018	-0.005	0.033
∆AggAcct	0.006	0.031	0.004	0.034	-0.005	0.048
ΔAggXBus	0.022	0.023	0.010	0.019	-0.004	0.034
∆AggXUniv	0.026	0.010	0.019	0.019	0.008	0.018

Table 2, Panel A presents descriptive statistics for college graduates at all sample institutions earning undergraduate degrees in accounting (*Acct*), business disciplines including accounting (*Bus*), business disciplines except accounting (*XBus*), any undergraduate degree (*Univ*), and any undergraduate degree except business (*XUniv*). For each variable, it also presents descriptive statistics for an aggregate yearly sample. The descriptives are for the yearly degree growth for that sample, measured as the sum of total degrees awarded in year t divided by the sum of total degrees awarded in year t – 1 minus one. Panel B presents three slices of the sample variables based on Carnegie Classifications for doctoral, master's, and other four-year universities.

Because we examine enrollment differences between accounting and other disciplines, we must also consider scale differences that are not adequately controlled for using levels. For this, we use aggregate growth measures. We choose aggregate yearly growth rather than institutional growth for two reasons. First, we are primarily interested in describing market-wide enrollment growth and not just the average growth of individual institutions. Because market-wide growth for certain institutional characteristics may be of interest, we instead perform sample slices based on such characteristics. Further, although an individual institution's accounting enrollment growth is likely of interest to particular institutions, such behavior is more likely idiosyncratic, and our focus in this study is on understanding and describing the systematic enrollment trends, especially the differences between accounting undergraduate enrollment and the broader business and university undergraduate enrollments, along with potential differences among demographics.

Second, we choose to aggregate the data for technical reasons. In addition to eliminating variation associated with intra-sample student transfers between schools, aggregation helps to mitigate the consequences of a size-related growth rate bias. While growth measures make it easier to compare measures of different scale, they remain subject to biases when the underlying measures have substantial scale variance.¹²

Therefore, we also aggregate each variable across all institutions each year and calculate variable growth from time t - 1 to time t^{13}

Table 2 also presents descriptive statistics for our aggregated growth measures. Because the observations have been aggregated, the number of growth observations in the redefined aggregate sample is 13: one observation for each sample year except the 2008 observation which lacks a base. In Panel A, we observe that accounting ($\Delta AggAcct$) had the lowest mean average aggregate growth over the period 2008–2021. It also had the widest variation. In Panel B, we find that much of this variation is likely attributable to other four-year institutions.

Table 3 presents the Pearson and Spearman Correlation Coefficients for our degrees awarded measures. Pearson (Spearman) Correlation Coefficients are presented below (above) the diagonal. For the levels variables, all correlations are highly significant (p-values < 1 %), indicating enrollments move substantially in conjunction across a university. We use both levels and growth variables because correlations among the unaggregated levels variables capture more than simple changes. For example, large universities are more likely to have large business schools such that the correlation may not capture whether

¹² For example, a school having an accounting department with a single student can demonstrate a growth of 100% by simply adding one. Any change in an accounting department is likely to appear substantially larger than a change to a larger aggregate.

¹³ Further, because enrollment cannot be negative, the bias tends to be positive rather than negative. As a result, any accounting growth measures, when compared to the university or the total enrollment growth of other business disciplines, are typically biased upward because the accounting measures are smaller. Aggregating to focus on market-level growth rather than institutional growth mitigates this, albeit not fully. In other words, our results for accounting growth likely over-estimate growth where the bias is stronger for smaller aggregations.

Pearson\Spearman correlation statistics.

Levels variables (I	N = 12,068)					
		Univ	Bus	Acct	XBus	XUniv
	Univ		0.917***	0.855***	0.900***	0.980***
	Bus	0.886***		0.875***	0.992****	0.838****
	Acct	0.812***	0.857***		0.823***	0.805***
	XBus	0.871***	0.995***	0.799***		0.819***
	XUniv	0.993***	0.825***	0.771****	0.807****	
Growth variables	(N = 11)					
		∆AggUniv	∆AggBus	∆AggAcct	$\Delta AggXBus$	ΔAggXUniv
	ΔAggUniv		-0.117	0.645	-0.355	0.927
	∆AggBus	0.143		0.405	0.948***	-0.481**
	∆AggAcct	0.676 ^{**}	0.418		0.093	0.415
	∆AggXBus	-0.236	0.874***	0.038		-0.671***
	∆AggXUniv	0.731***	-0.473	0.390	-0.780^{***}	

Table 3 presents correlation statistics for college graduates at all sample institutions earning undergraduate degrees in accounting (*Acct*), business disciplines including accounting (*Bus*), business disciplines except accounting (*XBus*), any undergraduate degree (*Univ*), and any undergraduate degree except business (*XUniv*). The table also presents correlation statistics yearly aggregate growth in the measures, calculated as the sum of total degrees awarded in year t divided by the sum of total degrees awarded in year t – 1, subtract one. ***, **, and * indicate significance at 10%, 5%, and 1%, respectively. Statistically significant numbers appear in bold.

changes in business school enrollment also tends to be associated with changes in university enrollment. Put simply, enrollments are generally correlated with university size. In contrast, the growth variables remove such scale effects to focus on enrollment changes more generally among the disciplines. We find that the growth in business degrees excluding accounting ($\Delta AggXBus$) is significantly negatively correlated with the growth in university degrees that exclude business degrees ($\Delta AggXUniv$) awarded each year. The Pearson and Spearman Correlation Coefficients are -78.0 % and -67.1 %, respectively. We do not find a significant correlation between accounting degrees awarded and business or university degrees excluding accounting.

We also examine the demographic characteristics of our sample. Because demographic data in IPEDS is incomplete prior to 2011, we restrict our analysis to the years 2011–2021, yielding a subsample of 9482 institution-years for the disaggregated sample. Using variables predefined in the IPEDS database, we examine data for the following demographic groups: men (*Men*), women (*Women*), American Indian or Alaskan Natives (*AI_AN*), Asians (*Asian*), Black or African Americans (*BK_AA*), Hispanics or Latino (*Hisp*), Native Hawaiian or Pacific Islanders (*NH_PI*), Whites (*White*), two or more races (*2orMor*), and unknown (*Unkn*).

We examine both the level and growth variables for each demographic group. Table 4 presents descriptive statistics for annual averages of degrees awarded per institution for our demographic subsample.¹⁴ Panel A examines the levels for each variable. For the subsample period, women averaged a slightly higher number of accounting degrees awarded than men (25.91 compared to 25.39). Among racial demographics, whites were awarded, on average, the greatest number of accounting degrees (31.66) across all institutions for all subsample years, followed by Hispanics or Latinos (5.01) and Asians (4.50). When examining business degrees other than accounting, we find that whites and Hispanics or Latinos were still awarded, on average, the greatest number of business degrees (146.97 and 23.68, respectively) per institution per year. However, Blacks and African Americans were the group with the third highest number of business degrees (21.72) and university degrees excluding business (113.58). This could indicate that, on average, either more Asian students or fewer Black and African American students are drawn to accounting degrees.

In Panel B, we examine the aggregate growth among each

demographic. We find that, on average, the number of students pursuing an accounting degree in each demographic is growing at a slower rate over the sample period than the number of students in each demographic pursuing other university or business degrees generally. Over the sample period, the greatest decline in demographic growth in accounting appears among students reporting an unknown race (-0.059), followed by Native Hawaiian or Pacific Islander (-0.039) and American Indian or Alaska Native (-0.031) students. The only demographic groups to report growth were Hispanics or Latinos (0.055) and those reporting two or more races (0.130).

4. Results

4.1. RQ1 & RQ2: Overall changes in enrollment

We first look at changes in overall enrollment from 2008 to 2021 for just the accounting discipline (RQ1) and how those changes compare to both other business degrees and to overall university degrees (RQ2). We observe that the total number of accounting degrees awarded increased from 38,832 in 2008 to 40,761 in 2021, an increase of 4.97 %. However, as shown in Fig. 1, Panel A, the peak occurred in 2016 with 45,631. Fig. 2, Panel B illustrates the year-over-year growth rates in the number of accounting degrees awarded and shows decreases in the years 2013 and 2017 through 2021.

Over the same period, business degrees excluding accounting and total university degrees excluding all business degrees increased from 184,457 to 226,552 and 783,719 to 1,051,269, respectively, which are increases of 22.82 % and 34.14 % (see Fig. 2, Panel A). Unlike the trend in accounting, university and business degree growth were more consistent over the sample period. Total university degree growth remained positive throughout the sample. Business degree growth declined from 2011 to 2013 by a cumulative 2.86 % but returned positive in the remaining years, increasing a cumulative 13.69 % from 2014 to 2021 (see Fig. 2, Panel B). In the first half of the sample period, university growth was generally greater than business growth; business growth was mostly higher in the second half of our sample period.

Overall, during our sample period we find that accounting enrollments were relatively strong compared to other business and university enrollments during the first half of our sample period (2008–2015) but were weaker during the latter part of our sample (2016–2021). We discuss some of the implications of this finding more in Section 5.

¹⁴ For comparison to the same sample period, the means (standard deviations) for *Acct, XBus,* and *XUniv* in the demographic subsample are 51.30 (65.89), 238.38 (330.83), and 1,121.66 (1,504.26), respectively.

Descriptive statistics for demographic variables, annual averages per institution.

Panel A	A: Descriptive sta	tistics for levels	variables by de	mographic, 201	1–2021 (N =	9,482)						_
		Men	Women	AI_AN	Asian	Bk_AA		Hisp	NH_PI	White	2orMor	Unkn
Acct												
	Mean	25.39	25.91	0.20	4.50	3.79		5.01	0.08	31.66	0.96	1.66
	St. Dev.	33.30	34.62	0.72	15.68	7.63		13.75	0.42	38.37	1.95	4.49
	Max	283.00	390.00	13.00	315.00	93.00		216.00	16.00	379.00	22.00	145.00
XBus												
mbtu	Mean	131.83	106.55	1.06	12.60	21.72		23.68	0.41	146.97	5.38	9.50
	Std. Dev	179.19	156.62	3.06	38.74	45.45		69.17	1.47	202.43	10.89	29.47
	Max	2,007,00	2,667,00	57.00	755.00	989.00		1,783,00	33.00	2 908 00	148.00	894.00
		_,	_,		,			-,,		_,		
XUniv												
	Mean	444.67	676.99	5.79	57.08	113.58		120.69	2.06	719.09	30.93	37.24
	St. Dev.	659.50	871.65	16.29	158.47	191.74		330.49	6.85	966.11	59.13	87.84
	Max	5,606.00	8,872	292.00	2,027.00	2,485.0	0	6,452.00	219.00	7,376.00	762.00	1,923.00
Panel	B: Total growth	descriptive stat	istics by demo	graphic, 2012	-2021 (N=10)	1						
	Ū	Men	Women	AI_AN	Asian	Bk_AA	Hisp	NH_PI	White	2orMor	Unkn	Total
	∆AggAcct											
	Mean	-0.007	-0.011	-0.031	-0.008	-0.027	0.055	-0.039	-0.027	0.130	-0.059	-0.009
	Std. Dev.	0.028	0.020	0.140	0.030	0.030	0.039	0.112	0.019	0.128	0.059	0.021
	Min	-0.055	-0.045	-0.286	-0.046	-0.060	0.001	-0.160	-0.050	-0.051	-0.134	-0.040
	Max	0.035	0.018	0.172	0.037	0.035	0.106	0.134	0.000	0.331	0.064	0.020
	AAggXBus											
	Mean	0.016	0.018	-0.019	0.031	0.006	0.072	0.058	0.005	0.172	-0.031	0.016
	Std. Dev.	0.020	0.018	0.043	0.030	0.027	0.022	0.150	0.025	0.101	0.061	0.020
	Min	-0.020	-0.017	-0.090	-0.023	-0.040	0.024	-0.168	-0.035	0.057	-0.129	-0.020
	Max	0.041	0.041	0.030	0.067	0.040	0.093	0.255	0.038	0.348	0.049	0.041
	A A ggVI Inin											
	Moon	0.018	0.023	0.023	0.055	0.031	0.085	0.007	0.002	0 165	0.032	0.021
	Std Dev	0.016	0.023	-0.023	0.055	0.031	0.065	0.007	0.003	0.105	-0.033	0.021
	Min	0.010	0.012	0.030	0.010	0.021	0.017	0.001	0.013	0.117	0.030	0.012
	Max	0.053	0.014	0.005	0.022	0.081	0.005	0.120	-0.010	0.040	-0.113	0.053
	INICIA	0.033	0.034	0.027	0.000	0.001	0.110	0.120	0.040	0.555	0.035	0.033

Table 4, Panel B presents descriptive demographic statistics for the year-over-year percentage growth in total undergraduate degrees awarded among all sample institutions. Examining total growth mitigates the skew created by small numbers when calculating growth and removes potential excess volatility created by intrasample student transfers. Aggregating across the sample, however, yields only a single observation per year. The table examines growth in aggregate accounting degrees awarded ($\Delta AggAcct$), other business degrees awarded ($\Delta AggXBus$), and all other university degrees excluding accounting and business degrees ($\Delta AggXUniv$) by demographic and in total. Demographic definitions are provided in the notes to Panel A. Aggregate growth is calculated by summing degrees awarded by year for all sample institutions and then calculating growth: sum of total degrees awarded in year t divided by the sum of total degrees awarded in year t – 1 minus one.

4.2. RQ3: Institutional characteristics

For RQ3, we investigate changes in awarded degrees based on institutional characteristics. We first disaggregate the data into three categories used in the IPEDS database: Doctoral Universities, Master's Colleges and Universities, and Other Four-Year Institutions. Fig. 3 summarizes the results using aggregate growth rates.

Doctoral Universities' degree trends generally follow those previously described. Accounting experienced growth in the early years of the sample period and from 2014 to 2016. It contracted briefly during 2013 and again in the latter part of the sample from 2017 to 2021. Business degrees experienced negative growth in 2011–2013, but had positive growth in other years. Total university degrees experienced positive growth throughout the sample period, though peak growth occurred in 2012 at 5.2 %. The growth patterns for Master's Colleges and Universities are comparable to that of Doctoral Universities, though in most years the rates were slightly lower. The trends in the Other Four-Year Institutions were also similar, though there was more variability in the year-over-year growth rates.¹⁵ Additionally, there were more years with negative growth rates over the sample period (seven for accounting, seven for business, and five for all university degrees).¹⁶

4.3. RQ4: Demographic characteristics

Finally, we look at demographic trends in accounting degrees along two dimensions: 1) gender and 2) racial categories reported by IPEDS. Due to limitations in the available demographic data, we use degrees awarded from 2011 to 2021.

We first review the trends related to gender. We find that, on average, slightly more degrees per year are awarded to women than to men, although the difference does not appear meaningfully significant. We also do not observe any meaningful differences in the trends between men and women over our sample period; thus, we do not include a figure for gender.

In Fig. 4, we review the trends for the different racial demographic categories. Because college undergraduates report predominantly as White, we graph Whites separately in Panel A to better observe changes

 $^{^{15}\,}$ This is likely due in part to the lower total numbers of degrees awarded by this category of institution.

¹⁶ We also split the sample across the Carnegie Research Classification (R1, R2, R3) and analyzed trends in accounting degrees. In untabulated results, we find differences in the total number of degrees awarded that are consistent with institutions having greater research resources also tending to, on average, be larger institutions. However, the trends across all three classifications appear similar to doctoral institutions overall.

Panel A: Yearly Total Accounting Degrees Awarded



Panel A plots the sum of all accounting degrees awarded (AggAcct) by year for all institutions in our sample over the period 2008-2021.





Panel B plots the yearly growth (Δ AggAcct) in the total accounting degrees awarded (Acct), presented as a percentage change. Specifically, Δ AggAcct = AggAcct / AggAcct - 1, for any year t. Percentage changes greater than zero indicate positive enrollment growth during the year, whereas negative percentage changes indicate contracting enrollment.



in the demographic diversity over time. While we observe that the number of White students receiving degrees has declined steadily over the sample period, they continue to receive significantly more degrees than any other single demographic group, and more than all other groups combined.

In Panel B, we find that, since 2015, Hispanics or Latinos and Asians have been awarded the second- and third-most degrees, followed by Black or African Americans. Excepting Hispanics or Latinos and those who identify with two or more groups, all demographic groups have experienced a declining trend in accounting degrees awarded since 2016. The Hispanic or Latino group, in contrast, has seen consistent significant growth over the sample period. In 2011, they were the fourth-highest demographic group, having been awarded 3,093 degrees; in 2021, they were the second-highest demographic group having received 5,227 accounting degrees, a growth rate of 69 % since 2011.

To better understand the growth trends for the demographic groups, we calculated a cumulative abnormal growth rate for both accounting only students and business students and present the results in Table 5. We calculate abnormal growth as accounting or business degree growth less university growth over the same period, with negative abnormal growth in bold. We observe that abnormal growth in accounting across all demographic groups is increasingly negative over time. Our analysis presents a bleak outlook for accounting degrees. Over the sample period, all demographic groups experienced negative abnormal growth. Men, Women, and Whites had negative abnormal growth of -21.4 %, -27.8

%, and -18.8 %, respectively. Additionally, the Hispanic or Latino group, which is the only demographic group that has consistently increased in the total number of degrees over the sample period, significantly underperformed overall university growth with a cumulative abnormal growth of -24.6 %. This suggests that a smaller proportion of these students are selecting accounting degrees. Over the same timeframe, cumulative abnormal business degree growth was zero or positive in just over half of the demographic categories, including for Men, Whites, American Indian or Alaska Natives, and Native Hawaiians or Pacific Islanders (0.9 %, 1.8 %, 2.8 %, and 46.2 %), and were trending more positively for Women and Hispanics or Latinos (from -11.5 % in 2014 to -6.7 % in 2021 and from -12.7 % in 2016 to -9.7 % in 2021).

5. Discussion of results

Overall, the trends in accounting enrollment raise significant red flags for educators and the accounting profession. Accounting programs across the country, and at all levels and institution type, are seeing decreases in enrollment even before the projected impact of the enrollment cliff has influenced enrollment. Additionally, these decreases are spread across all genders and most ethnicities, and even the increases among the Hispanic or Latino population are smaller than the increases experienced in other degree programs. All of this indicates that the issue is widespread and potentially caused by inherent characteristics in either the degree itself or the accounting profession as whole. Prior research

Panel A: Yearly Total Number of Degrees Awarded



Panel A plots the total accounting degrees awarded (AggAcct), total business degrees awarded excluding accounting (AggXBus), and total university degrees awarded excluding all business degrees (AggXUniv).





Panel B plots the growth for total accounting degrees awarded ($\Delta AggAcct$), total business degrees awarded excluding accounting degrees ($\Delta AggXBus$), and total university degrees awarded excluding all business degrees ($\Delta AggXUniv$). See Appendix for variable calculations.

Fig. 2. Trends in higher education for accounting, business degrees (excluding accounting) and university degrees (excluding business), 2008–2021.

has investigated factors that initially attract students to an accounting major. For instance, Malgwi et al. (2005) find that men and women both ranked *interest in accounting as a subject* as their most important factor in a degree decision, though they differed on their next most significant factors. Women cared more about their *aptitude in the material*, while men were more focused on *career advancement opportunities and compensation*.

Accounting department faculty often hear and relate stories of students choosing not to major in accounting because they have higher paying opportunities in similar degrees. A review of data from the Bureau of Labor Statistics (BLS, 2022) projects the number of accountants and auditors to grow by 6 % over the period 2021-2031, similar to that reported for financial specialists, and higher than the average reported for all occupations (5 %). The median annual wage for accountants and auditors is \$77,250, almost identical to financial specialists (\$77,300) and significantly higher than the average for all occupations (\$45,760). Thus, when compared to financial specialists, an accounting degree appears similarly attractive from a salary and job prospects perspective. However, there are other related degrees that may be more attractive to potential accounting students. For instance, financial analysts need a similar knowledge and skill set to accountants, auditors, or financial specialists, but they have a median pay of \$95,570 and are expected to grow by 9 % over the same period. Other career opportunities with potentially brighter outlooks include (with median pay and growth): Operations Research Analysts (\$82,360 and 23 %), Systems

Administrators (\$80,600 and 3 %), Management Analysts (\$93,000 and 11 %), Marketing Research, Network and Computer Systems Administrators (\$80,600 and 3 %), and Electrical Engineers (\$101,780 and 3 %).

The recruiting pitch that accounting firms use to compensate for paying lower starting salaries has often been to promise rapid promotions and opportunities for significant salary growth early in a professional's career. However, these careers also come with the promise of periods with a heavy workload (i.e., the busy season) and an understanding that many new associates will leave the firm prior to reaching those advanced promotions. Current generations of students may have shifting priorities and be less inclined to make that tradeoff when they have opportunities for a higher starting salary and a lower time commitment. A study conducted by Prudential in 2022 found that a third of individuals who switched jobs during the COVID-19 pandemic were willing to take a pay cut in their new job if it offered greater worklife balance (Prudential, 2022).

The trend of CPA firms hiring greater numbers of non-accounting students may also drive the observed decrease in accounting enrollments. In 2014, U.S. CPA firms hired 43,252 accounting graduates; in 2020 that number was only 27,751. During that same timeframe, the percentage of total hires by U.S. CPA firms that graduated in something other than accounting increased from approximately 20 % to 43 % (AICPA, 2022). The increased hiring of non-accounting graduates at these prominent accounting firms may be having a trickle-down impact as students increasingly recognize other degree programs offer a viable

Panel A: Doctoral Institutions



Panel A examines degree growth among doctoral colleges and universities, classified according to the 2018 Carnegie Classification. It plots total growth among these institutions for accounting degrees awarded (*AAggAcct_doc*), total business degrees awarded excluding accounting degrees (*AAggXBus_doc*), and total university degrees awarded excluding all business degrees (*AAggXUniv_doc*). See Appendix for variable calculations.

Panel B: Master's Colleges and Universities



Panel B examines degree growth among master's colleges and universities, classified according to the 2018 Carnegie Classification. It plots total growth among these institutions for accounting degrees awarded (*AAggAcct_master*), total business degrees awarded excluding accounting degrees (*AAggXBus_master*), and total university degrees awarded excluding all business degrees (*AAggXUniv_master*). See Appendix for variable calculations.





Panel C examines degree growth among four-year universities, those classified as neither doctoral or master's-granting institutions according to the 2018 Carnegie Classification. It plots total growth among these institutions for accounting degrees awarded (*AlagaAcct_4year*), total business degrees awarded excluding accounting degrees (*AlaggXBus_4year*), and total university degrees awarded excluding all business degrees (*AlaggXUniv_4year*). See Appendix for variable calculations.

Fig. 3. Degree growth by institution type, 2008–2021.

Panel A: White and Non-White



Panel A plots the total accounting degrees awarded (Acct) to whites and non-whites during the period 2011-2021

Panel B: Non-Whites Classified by Demographic Group



Panel B plots the total accounting degrees awarded to all non-white demographic groups as classified in the IPEDS database, including Hispanic or Latino (*Hisp*), American Indian or Alaska Native (*AI_AN*), Asian (*Asian*), Black or African American (*BK_AA*), Native Hawaiian or other Pacific Islander (*NH_PI*), two or more races (*2orMor*), and unknown (*Unkn*).

Fig. 4. Total accounting degrees awarded by demographic categories, 2011-2021.

career path with CPA firms.

The most positive trend among these data is the growth in accounting degrees among the Hispanic or Latino population, although this is tempered by the fact that degree growth in accounting for this group still lags that of the growth in other degrees. There may be opportunities for higher education to offset the overall decreases in enrollment among the other demographic groups by seeing continued increased growth among Hispanics or Latinos. When universities increase their overall outreach to Hispanic or Latino populations, accounting programs may be well-positioned to attract more of these students.

6. Implications and conclusion

6.1. Current responses to the decline in accounting enrollment and accountants

Higher education institutions are facing the prospect of an enrollment cliff beginning in 2025 arising from lower birth rates from 2008 to the present. As the number of potential college students decreases, institutions must either find ways to increase the percentage of the eligible population who attend college or adapt their structure to account for the decrease in tuition revenue. Although accounting is perceived as providing a stable career with positive growth potential, accounting programs have recently observed a declining number of graduates relative to other business programs or the university in general. This is especially troubling as the impact from the enrollment cliff has yet to take effect. Should these trends continue, accounting programs could face significant challenges.

Accounting firms, state CPA societies, and accounting leaders in academia may wish to engage in preemptive actions to address the decline in accounting graduates. Four recent developments suggest an awareness of the need to boost the number of accountants in practice, which starts with increasing accounting enrollment. These developments include 1) the AICPA's Pipeline Acceleration Plan, 2) a push for accounting programs to receive a STEM designation, 3) changes to the CPA exam, and 4) legislation that reduces the number of academic credit hours needed to qualify for application to become a licensed CPA.

6.1.1. AICPA pipeline acceleration plan

The AICPA has developed a Pipeline Acceleration Plan that includes "both new initiatives and expanded existing programs designed to promote the image of accounting, raise awareness of careers in the profession, and help those interested in accounting as a major and pursuing a CPA license" (AICPA & CIMA, 2023c, 1). The initiatives of the plan are focused on addressing needs in the following six areas: 1) awareness of the profession 2) improved perception of the profession, 3) better training and education, 4) enhanced firm culture and business models,

Cumulative aggregate abnormal growth by demographic (N = 10).

Panel A: Accounting degree growth (Abn_ΔAggAcct)										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	-0.022	-0.068	-0.087	-0.089	-0.096	-0.124	-0.152	-0.202	-0.243	-0.296
Men	-0.006	-0.046	-0.052	-0.054	-0.049	-0.083	-0.112	-0.163	-0.171	-0.214
Women	-0.036	-0.085	-0.112	-0.111	-0.125	-0.139	-0.155	-0.187	-0.240	-0.278
AI_AN	-0.112	-0.019	0.088	-0.174	0.006	0.023	0.051	-0.118	-0.064	-0.164
Asian	-0.019	-0.089	-0.145	-0.176	-0.182	-0.245	-0.313	-0.348	-0.404	-0.433
Bk_AA	-0.036	-0.106	-0.168	-0.179	-0.222	-0.244	-0.286	-0.342	-0.362	-0.416
Hisp	-0.013	-0.066	-0.061	-0.060	-0.053	-0.069	-0.132	-0.151	-0.197	-0.246
NH_PI	0.099	-0.182	-0.373	-0.329	-0.350	-0.235	-0.281	-0.321	-0.385	-0.463
White	-0.027	-0.070	-0.075	-0.073	-0.072	-0.089	-0.094	-0.130	-0.151	-0.188
2orMor	-0.177	-0.187	-0.164	-0.215	-0.175	-0.201	-0.200	-0.229	-0.318	-0.315
Unkn	-0.055	-0.103	-0.103	-0.057	-0.072	-0.055	-0.076	-0.153	-0.152	-0.233
Panel B: Business deg	Panel B: Business degree growth (Abn $\Delta AggXBus)$									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total	-0.046	-0.084	-0.102	-0.089	-0.068	-0.045	-0.031	-0.025	-0.036	-0.035
Men	-0.036	-0.071	-0.082	-0.074	-0.054	-0.032	-0.018	-0.005	-0.004	0.009
Women	-0.057	-0.096	-0.115	-0.095	-0.075	-0.053	-0.042	-0.043	-0.061	-0.067
AI_AN	-0.027	-0.053	-0.045	-0.087	-0.021	-0.027	0.041	0.038	0.022	0.028
Asian	-0.052	-0.106	-0.127	-0.111	-0.134	-0.124	-0.138	-0.132	-0.144	-0.144
Bk_AA	-0.038	-0.104	-0.150	-0.167	-0.171	-0.169	-0.170	-0.168	-0.180	-0.179
Hisp	-0.045	-0.100	-0.130	-0.119	-0.127	-0.112	-0.092	-0.086	-0.107	-0.097
NH_PI	0.223	0.249	0.106	0.086	0.275	0.195	0.220	0.431	0.258	0.462
White	-0.058	-0.096	-0.104	-0.083	-0.054	-0.020	0.001	0.014	0.011	0.018
2orMor	0.001	-0.062	-0.086	-0.089	-0.019	-0.007	0.036	0.067	0.060	0.072
Unkn	-0.052	-0.060	-0.083	-0.049	-0.029	-0.002	0.005	-0.002	-0.002	0.022

Table 5, Panel A presents the yearly aggregate cumulative abnormal percentage growth in undergraduate accounting degrees awarded ($Abn_\Delta AggAcct$) by demographic and in total. Panel B presents the yearly aggregate cumulative abnormal percentage growth in other business degrees awarded ($Abn_\Delta AggAcct$) by demographic and in total. The table examines abnormal total growth in degrees awarded among all sample institutions, where abnormal growth is defined as the difference between accounting or other business degree growth and the growth in all other university degrees awarded within the presented demographic. The table presents aggregate growth by demographic group as defined by the US IPEDS database: Men (*Men*), Women (*Women*), American Indian or Alaska Native (*AI_AN*), Asian (*Asian*), Black or African American (*BK_AA*), Hispanic or Latino (*Hisp*), Native Hawaiian or other Pacific Islander (*NH_PI*), two or more races (*2orMor*), and unknown (*Unkn*).

5) focused diversity, equity and inclusion initiatives, and 6) stronger partnering with educational institutions. Some elements of this program will directly impact enrollments as they require explicit partnerships with academia to accomplish their objectives. The other elements may have trickle-down effects to accounting education by making an accounting career more desirable for students.

One initiative of this plan that may have a direct effect on higher education is an educational pilot program titled Experience, Learn & Earn. Under this program, students may begin employment with a reduced workload in order to simultaneously take up to 30 h of online graduate course credits (AICPA & CIMA, 2023a).¹⁷ The AICPA has partnered with Tulane University to provide the online course offerings, and the first cohort of students began in January 2024 (NASBA, 2024). If the AICPA uses this model and expands its partnership to additional educational institutions to provide online course offerings, then overall enrollments at those institutions may increase. However, there are valid concerns for academia that remain to be addressed. For instance, this growth at AICPA partner programs may be achieved by cannibalizing enrollment from non-AICPA partner programs rather than by encouraging overall growth. Additionally, one goal of the program is to provide more affordable educational options, and the courses are presently expected to be priced below that of a typical community college offering (AICPA & CIMA, 2023a). Thus, while accounting departments might see enrollment numbers rise, the impact on their budgets would still be less than what is experienced from increasing traditional enrollment. Additionally, the acceptance of this type of non-traditional program may ultimately lead other institutions or organizations-such as online or forprofit universities, accounting firms, or even regulatory bodies such as the AICPA itself-to begin offering these types of courses directly to future CPA candidates, which would further impact enrollments. Finally, there have been justifiable concerns about both the actual and perceived quality of these educational offerings, which could impair the reputation of the CPA license and, by extension, the value of an accounting degree.¹⁸

The pipeline acceleration plan also describes initiatives focused on high school students, including student outreach and increased educational opportunities (AICPA & CIMA, 2023a). In a pilot program beginning in Fall 2025, the Advanced Placement Business Principles course for high school students will include topics related to accounting and finance. This earlier exposure to accounting and finance topics may encourage more students to consider accounting as a degree when they enter college. Similarly, the AICPA is exploring the possibility of dual enrollment options for high school students in which students enroll in college courses and receive both high school and college credit. This may also increase student interest through earlier exposure to accounting.

Other elements of the AICPA's plan focus on funding for college students and early professionals. The AICPA continues to increase their scholarship pool and to promote legislation at the federal level that would allow Section 529 funds to be spent on CPA exam and CPA review course fees (AICPA & CIMA, 2023a).

6.1.2. STEM designation for accounting

Running parallel to and in conjunction with the Pipeline Acceleration Plan objectives, the AICPA is also advocating for accounting

¹⁷ These would be credit hours beyond a bachelor's degree that are necessary in order to meet state CPA licensure requirements.

¹⁸ These concerns have been expressed in various comment letters to the AICPA (https://aaahq.org/Pipeline/Draft-Pipeline-Acceleration-Plan-Respon ses).

programs to be receive a STEM designation (AICPA 2021; AICPA, 2024b).¹⁹ Receiving this designation increases access to federal STEM funding, allowing accounting programs to have more resources to grow and market their programs.²⁰ It would also open up avenues to compete for students interested in STEM majors. Specifically, this could help to attract more international students whose visa or funding requirements are dependent upon entering a STEM program (DHS, 2023). Some schools have already made this change,²¹ and private companies such as Miles Education have recently partnered with STEM accounting programs to provide incoming cohorts of graduate students from southeast Asia.²²

6.1.3. Curriculum updates

While accounting academics may enjoy the novelty of teaching a subject that can trace its double-entry roots back to the 13th century, current and rising generations of students may feel that traditional accounting is stale and irrelevant to their careers. They may not be enamored by a career stereotyped as backroom number-crunchers hunched over nine-keys. While accounting fundamentals have not changed much over the years, academics appear to have recognized that the minutiae of debits and credits may be having a detrimental impact on accounting enrollments. This can be seen anecdotally as some introductory financial accounting textbooks now deemphasize or even remove such basic building blocks of accounting theory in favor of a more user-focused perspective.²³ Whether or not these changes will have a positive impact on enrollments remains to be seen. However, academics may be prudent to seek out and adapt their courses to deliver content considered more relevant to students and prospective employers.

Accounting departments may also consider adapting curriculum to include or increase emphasis on topics such as data analytics, artificial intelligence, and ESG. Accounting firms are increasingly hiring new employees from majors outside accounting to meet the technological demands of a changing global business environment (AICPA, 2023). Similarly, due to the changing global environment, ESG risk management will continue to grow in relevance in future years (Thompson Reuters, 2023) and increasingly dominate the minds of younger generations of college students (EY, 2023). Despite recognizing this growing need, accounting departments have been slow to formally integrate ESG topics into their curriculums (Simmons et al., 2024). By broadening the scope of the standard accounting curriculum, accounting programs have an opportunity to increase their enrollments and appeal to a broader range of interests and personality types among university students in addition to more closely matching the full range of services currently offered by accounting and assurance firms. Alternatively, choosing to

delay the incorporation of such topics into the accounting curriculum creates a risk that other disciplines will instead lead out on these topics and siphon off potential future accounting students.

6.1.4. CPA licensure changes

Two recent changes to the CPA exam are intended to help stem a decline in the number of exam candidates. First, the exam recently changed formats. Rather than each exam candidate being required to pass four standardized sections, candidates now take three core sections and then may choose their fourth section from three available options.²⁴ Allowing candidates to choose among three alternatives for their fourth exam section provides them with flexibility to chart a path that is more specific to their interests (NASBA, 2022). Second, the National Association of State Boards of Accountancy (NASBA) made a change to the Uniform Accountancy Act Model Rules that allows state boards of accountancy to increase the amount of time that candidates have to pass all four sections of the CPA exam from 18 months to 30 months (Strickland, 2023).

In addition to changes in the CPA exam, some state legislatures and licensing bureaus in the accounting profession have begun relaxing the 150-credit hour rule. As of March 2025, the states of Ohio, Virginia, and Utah had passed legislation that will allow CPA candidates to replace the additional 30 h of college credit with an extra year of professional experience (Zank 2025).²⁵ Other states have had similar discussions (Ellis, 2023), and the AICPA and NASBA have proposed an initiative that would allow CPA candidates to replace educational requirements beyond a bachelor's degree with a demonstration of professional competency (AICPA, 2024a).

The impact of these changes on accounting enrollments is unknown. Reducing the barriers to entry into the profession may increase the incentives for students to major in accounting. On the other hand, reducing the number of credits needed to be licensed would certainly reduce the enrollment in graduate accounting programs, and it is unknown whether potential undergraduate increases in accounting enrollment would be enough to offset the decreases in accounting graduate programs. Additionally, if the decreases in enrollment are driven primarily by ingrained attitudes and personality characteristics that are less compatible with the type of employment offered by an accounting degree, then these measures may ultimately have limited impact.

6.2. Limitations and future research opportunities

There are several limitations to this study. We limited our sample period to the period 2008–2021. Because our sample started during the recession of 2008–2010, abnormal occurrences of degree awards during those years could have undue influence on our trend and aggregate analyses. The COVID pandemic could also impact our data in 2020–2021 if it led to increases in the number of students dropping out of school, either permanently or temporarily, near the end of their degree program. We are also limited by the type of information collected from universities by the NCES, as well as being subject to any errors or biases related to the self-reporting of data by universities.

Future research may choose to investigate the underlying reasons for why students select, or choose not to select, accounting as a degree. There are likely to be reasons related both to the educational path involved as well as factors related to future job prospects. Thus, accounting educators and accounting practitioners will need to work together to find practical solutions for attracting more students into the field of accounting. Future research may also further investigate why some programs are relatively more successful than others. This could be

¹⁹ The AICPA provides a portal for resources related to the initiative at http s://www.thiswaytocpa.com/segmented-landing/stem-initiative/. Additionally, in the July 30, 2024 letter to the Department of Homeland Security, all 50 U.S. state CPA societies, plus several other interested organizations (e.g., the American Accounting Association, the Center for Audit Quality, and the International Accreditation Council for Business Education) signed on in support of STEM designation for accounting degrees.

²⁰ As of 2018, annual federal appropriations for STEM funding were typically between \$2.8 and \$3.4 billion, and over half of that "is intended to serve the needs of postsecondary schools and students." (Granovskiy 2018, Summary).

²¹ For example, Brigham Young University (see https://marriott.byu.edu/ news/article?id=2310) and North Carolina State University (see https://mac. ncsu.edu/admissions/discover-mac/aacsb-accreditation-and-stem-designation/).

^{). &}lt;sup>22</sup> For additional details about the programs offered by Miles Education, please visit https://www.mileseducation.com/miles-us-pathway.

²³ For example, see *Financial Accounting for Managers*, ISBN 9781264503056 by Thomas, Drake, Thornock and Spiceland, published by McGraw Hill (2024) as well as *Financial Accounting for Decision Makers*, ISBN 9781618534439 by DeFond, published by Cambridge (2023).

 $^{^{24}\,}$ Those three options are: 1) business analysis and reporting, 2) information systems and controls, and 3) tax compliance and planning.

²⁵ These changes will be implemented beginning in 2026.

done by comparing accounting programs to other business degree programs to identify any aspects of those programs that could be implemented in accounting to attract more students. Alternatively, more successful accounting programs could be compared to less successful accounting programs to identify characteristics that are inherent in the more successful programs. Both academia and accounting practitioners should be proactive about these trends in order to reverse them before they become a crisis for the profession as a whole. Finally, future research may recognize that accounting enrollments were relatively stronger in the earlier years of our analysis and investigate whether there were any specific events or changes that set it on its current lower trajectory. Accounting remains an integral part of the business world and a viable career path for many individuals, and it is incumbent upon all interested parties to work collaboratively to find solutions to the current problems it is facing.

Appendix A. Variable definitions

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Variable	Definition
Acct	Accounting degrees awarded
Bus	Business degrees awarded
Univ	University degrees awarded
XBus	Business degrees awarded, excluding accounting degrees (Bus – Acct)
XUniv	University degrees awarded, excluding business degrees (Univ – Bus)
Agg[i]	Sum total of all degrees <i>i</i> awarded during year <i>t</i> for all sample institutions, where <i>i</i> is one of Acct, Bus, Univ, XBus, or XUniv.
$\Delta Agg[i]$	Total growth in <i>i</i> from year $t - 1$ to year <i>t</i> after aggregating the sample or subsample by year (Sum(i_t) / Sum(i_{t-1}) – 1), where <i>i</i> is one of Acct, XBus, <i>c</i>
	XUniv.
$\Delta AggXBus$	Total growth in business degrees awarded after excluding accounting
$\Delta AggXUniv$	Total growth in university degrees awarded after excluding business degrees
IPEDS Demographics	
Men	Men
Women	Women
Nonres	Nonresident alien
AI_AN	American Indian or Alaska Native
Asian	Asian
Bk_AA	Black or African American
Hisp	Hispanic or Latino
NH_PI	Native Hawaiian or Other Pacific Islander
White	White
2orMor	Two or more races
Unkn	Race/ethnicity unknown
Carnegie Classifications	
Doctoral universities	Doctoral universities according to the IUCPR 2018 Carnegie Classification (codes 15–18)
Master's colleges and universities	Master's colleges and universities according to the IUCPR 2018 Carnegie Classification (codes 18, 19, 20)
Other four-year institutions	Traditional baccalaureate colleges identified using the IUCPR 2018 Carnegie Classification codes (codes 14, 21)
R1 doctoral universities	IUCPR 2018 R1 research universities (code 15)
R2 doctoral universities	IUCPR 2018 R2 research universities (code 16)
R3 doctoral universities	IUCPR 2018 R3 research universities (code 17)

Addendum. Additional tables and figures



Panel A: Yearly Total Accounting Degrees Awarded to Men and Women





Accounting Degrees Awarded to Men/Women





Fig. XX. Accounting degrees awarded to men and women, 2008-2021

Data availability

Data will be made available on request.

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