

An Examination of the Pass Rates on the CPA Exam: A Suggested Redesign of the Accounting Curriculum 2013 – 2017

Lamine J. Conteh
Southwest Minnesota State University

Okeniyi Oke
Business Services and Statistical Consulting

The purpose of this study is to examine the pass rates of certified public accountant examinations from 2013 – 2017 examination periods, and to suggest a redesign of the accounting curriculum. The study examined whether requiring 150 credit hours of accounting education, increasing intermediate accounting course deliveries to at least eight credit hours, as well as having auditing and advanced accounting to have six credit hours, respectively. Also, the study examines the inclusion of governmental accounting, regulations, and business environment and concepts as part of the accounting curriculum. Finally, the study inquired about the effects of computer-based format and knowledge depreciation on CPA candidate pass rates. Despite the publication of the Bedford Committee's finding on the quality of accounting education, and the cosmetic changes that have been made to the accounting curriculum, the success rates of candidates continue to be dismal. In light of these concerns, it is obligatory for U.S. colleges and universities to embrace emergent accepted accounting curriculum findings to better position future certification examinations.

Keywords: Accounting Education, Candidate Success Rates, CPA Redesign, Emergent Ideas CPA Curriculum

INTRODUCTION

The undergraduate accounting curriculum in the United States (U.S.) differs considerably from college to college. There are also considerable differences between the undergraduate accounting curriculum and the Uniform Certified Public Accountant (CPA) examination chapter review contents. It is puzzling that as these disparities continue, most undergraduate accounting programs would have encouraged the harmonization of accounting curriculum with the CPA chapter review contents.

The appraisal of an accounting program is to meet the needs of accounting students as well as assessing the CPA candidate success rates. Invariably, stakeholders often compare the success of an accounting program with the success rates of its CPA candidates (Brahmasrene and Whitten, 2001). As a tool, this type of assessment promotes one school over the other, without a discerning valuation on the long-term successes of accounting graduates.

Successful candidates who passed all the four parts of the CPA exam are to have 150 credit hours before obtaining a CPA license. Depending on the jurisdiction, most states require successful candidates to have 30 credit hours beyond the 120 credit hours of undergraduate accounting education (NASBA, 2008). However, it is up to each candidate the courses to take in order to meet the 150 credit-hour rule for the CPA licensure. In addition, most states require successful candidates to have at least one year of public accounting work experience before licensure.

Objectives of the Research

The main objectives of this research is to examine the factors that contribute to the CPA candidate success rates from 2013 to 2017. The low pass rates have been attributed to the differences between the undergraduate accounting curriculum and the certified public accountant examination chapter review contents. Accounting professional standard-setters, namely the American Accounting Association (AAA), The American Institute of Certified Public Accountants (AICPA), The Institute of Management Accountants (IMA), and the *Big 4* professional public accounting firms have expressed deep concerns about the quality of accounting education and CPA pass rates.

LITERATURE REVIEW

In order to capture an understanding of the CPA candidate pass rates, inquiries have been made on the accounting curriculum harmonization, the 150 credit hours of undergraduate accounting education, and increasing course credit hours in intermediate accounting to at least eight credit hours, and both auditing, and advanced accounting to six credit hours of education. As a consequence, the study also inquired whether the addition of governmental accounting, regulation (REG), and business environment and concepts (BEC) as part of the undergraduate accounting education would increase CPA candidate pass rates. Furthermore, the study examined the effects computer-based exam and knowledge depreciation on CPA candidate failure rates.

Accounting Accreditations

The six regionally accrediting commissions and the international business accrediting bodies, such as the Association to Advance Collegiate Schools of Business (AACSB), the Accreditation Council for Business Schools and Programs (ACBSP), and the International Assembly for Collegiate Business Education (IACBE) do not have uniform accounting education curriculum. Munter and Reckers (2009) stated that the quality of accounting education has been addressed by examining the CPA success rates of students who attended AACSB accredited schools.

The study concluded that the success rates of candidates from AACSB accredited programs who took computer-based CPA examination was 6% to 8% higher than those of non-AACSB programs (Grant, Ciccotello, & Dicke, 2002). However, before the CBA format, the success rates of students who took the CPA exam were 7.5% higher than non-AACSB graduates who took the same examination (Grant et al., 2002).

Accounting Professional Standard-Setters

Accounting professional standard-setters, namely the American Accounting Association (AAA), The American Institute of Certified Public Accountants (AICPA), The Institute of Management Accountants (IMA), and the previous *Big 5* professional public accounting firms have expressed deep concerns about the quality of accounting education (Albrecht & Sack, 2001). Similarly, the AAA's *Bedford Committee* called for drastic changes to the accounting course contents and teaching styles because professional accounting is evolving and constantly changing.

Graciously, since the publication of the *Bedford Committee's* report, several cosmetic reforms have taken place in the delivery of accounting education (NASBA, 2008). Correspondingly, a faculty member's opinion on the accounting curriculum is usually aligned with his or her professional and

academic experiences. From this perspective, most faculty members instruct with trial and error as well as mimicking their own academic trainings.

Certified Public Accounting Profession

A certified public accountant (CPA) in the USA is a professional who is licensed by a state to always exhibit a higher degree of dignity, use due diligence in acquiring knowledge and skills, and render a conclusion that is based on fairness and integrity from an independent mind. A key ingredient of becoming a CPA is to sit and successfully pass all the four parts of the Uniform CPA Examination, after attaining between 120 hours to 150 semester hours of education, and between 1 to 2 years of experience under a CPA. In addition, a CPA must maintain continuing professional education (CPE) and may also take ethics and compliance training, join a state society of CPAs and the AICPA.

CPA Pass Rates

It is imperative to know that the pass rates of CPA candidates vary from state to state, and it is equally important to note that these pass rates are unlikely to change if corrective measures are not implemented (Whitten, Brabmasrene, & Meszaros, 2002). As conveyed by Whitten et al. (2002), the National Association of the State Boards of Accountancy (NASBA, 2011) disclosed that in 1990, slightly over 20% of first-time CPA candidates passed all the four parts. Similarly, NASBA's figures reported that in 1990, more than 50% of first-time candidates were successful in any of the four parts. For example, in 1998, about 20% of the Indianapolis testing site candidates passed all the four sections of the CPA examination (Whitten et al., 2002).

Auditing

The auditing and attestation (AUD) section of the CPA examination has changed significantly. Most colleges and universities offer only three credit hours of auditing. As a consequence of this deficiency, it is nearly impossible for first-time CPA candidates to pass the AUD section of the CPA examination. For example, the auditing and attestation (AUD) CPA review by Gleim and Hillison (2016) has 22 complex chapters, which is sharply different from a typical undergraduate auditing textbook.

In light of these significant differences, particularly in risk management, accounting professionals and academia have called for changes in auditing education by taking a broader, less technical and less structured approaches. Suggestions were also raised on the vital points of integrating technology in the curriculum for proper enhancements on communications and research skills (Elliot, 1997). Though the materials in the Auditing section of the exam had fundamental concepts, exam candidates stated that the exam questions were confusing because there could be more than one answer for some of the questions. The average pass rates between 2013 and 2016 CPA examination was 46.34% (AICPA, 2017).

Business Environment and Concepts (BEC)

This paper contends that business law course delivery at colleges and universities is not as strong when compared to other accounting courses that are required for the undergraduate accounting education. This is most likely an attribute to inconsistencies in the business law curriculum, a possibility that accounting chairs are not involved in business law curriculum development and change, and the contention that the current BEC portion of the CPA examination is considerably different from the business law classes.

In order to increase the passing rates of first-time CPA candidates, co-teaching and revision of the course content may be an ideal method of accounting programs to consider for the delivery of business law courses.

The BEC section of the CPA examination continue to maintain the highest cumulative success rates. With regard to BEC pass rates, the average was 55.80% for examination periods of 2013 to 2016 (AICPA, 2017).

Financial Accounting and Reporting

Respondent candidates in a survey conducted by the American Institute of Certified Public Accountants (AICPA), disclosed that the Financial Accounting and Reporting (FAR) was the most difficult section of the CPA examination; thus, resulting in the lowest passing rates. This was most likely attributable large volume of information in the FAR section. In order to pass the FAR section, examination candidates understanding of the concepts instead of simple memorization. According to AICPA (2017), the average cumulative pass rate for 2013 to 2016 CPA examination was 47.06% for FAR.

Income Tax (Regulation)

Emphatically, expectation gaps between the proficiency levels of accounting graduates in income taxation may be attributed to the diminishing preparedness of accounting graduates' knowledge on tax-related topics. For example, a 1987 study on the perceptions of accounting educators versus accounting practitioners found significant differences between the two groups (Arthur Andersen, 1989). Respondent educators suggested two required tax courses, while practitioners urged for three courses for undergraduate accounting degree programs (Arthur Andersen, 1989).

To compound these findings, the regulation (REG) portion of the CPA examination has twenty study units (Gleim & Hillison, 2016), while a typical undergraduate auditing textbook has twenty four chapters. With vast differences in the chapter contents between a typical undergraduate income tax textbook and the regulations portion of the CPA examination, a three-credit hour of undergraduate education is insufficient the first-time candidates to pass the regulations section of the CPA examination.

Examination candidates have confirmed that the Regulation portion of the CPA Exam is the most difficult to study because of non-accounting information on the examination. As a result, the REG section of the CPA examination had cumulative pass rates of 48.48%, 49.41%, 49.43%, and 48.45% for 2013, 2014, 2015, and 2016 examination periods, respectively (AICPA, 2017).

Intermediate Accounting

Albretch and Sack (2000) argued that many colleges and universities have seen a decline in the quality and number of accounting students. It is arguably true intermediate accounting has impacted the decline. At most colleges and universities, intermediate accounting is one of first three hundred level courses that students take. As a result of this, accounting programs need to have quality delivery modes as a means of preparing their graduates for the workforce.

Intermediate accounting is considered one of the most difficult courses in accounting because it consists of several challenging chapters. In almost all the universities in the U.S. at least six credit hours of intermediate accounting are required for all accounting majors. It is viewed that intermediate accounting is used to assess the students who continue as accounting majors. With the high dropout rates in intermediate accounting, several accounting educators are using different teaching styles to improve student performance in intermediate accounting.

Considerably, accounting educators have long considered intermediate accounting as the most rigorous course in any accounting curriculum. Accounting professional standard setters have also cautioned the number of published intermediate accounting textbooks, their complexity, and the fact that it is unrealistic to cover twenty four chapters in just two semesters with the expectation of giving quizzes and exams during the time frame. Constructively, the above questions are critically important and that proper investigation is warranted on intermediate accounting textbook content and delivery.

Harmonization of Accounting Curriculum

The Uniform CPA examination had the most significant changes when it moved from a based examination to a computer based testing (CBT) method in 2004. During the time of the switch, much focus was in the descriptions and contents of the accounting programs and how accounting students can be prepared for the CBT format. Candidly, not everyone was on board with the idea of harmonizing the

accounting curriculum and teaching methods for candidate successes with the CBT format (Lopez & Specht, 2009).

Lopez and Specht (2009) stated that the *Accounting Education Change Commission's* white paper to the AICPA had focused on the integration of critical thinking skills as part of the accounting curriculum. According to Lopez and Specht (2009), a survey of AICPA members in the education section discovered that the state board of accountancy had more influence on the change of the accounting curriculum than the CPA exam content specialists.

It was apparent that the survey participants did not take any position on whether to support or oppose the incorporation of learning outcomes as part of the accounting program assessments for candidate success rates on the CPA examination (Lopez & Specht, 2009). However, most AACSB-accredited accounting programs have made similar changes similar to the harmonization of accounting programs with their counterparts.

150-Hour Credit Requirement

Historically, a minimum of 120 semester hours of undergraduate college work had been the educational requirement for CPA examination entrance and licensure. Because of concern on the quality of accounting education, accounting profession debated the importance of requiring the 150 credit-hour for the CPA examination and licensure. According to Elam (1996), the AICPA argued that the new requirements would immensely increase the quality of a CPA's work.

As a consequence, the AICPA voted in 1988 to implement the 150 credit hour requirement, which took effect in 2000. Currently, the 150-hour education requirement has been adopted in almost all of the 55 jurisdictions in the USA. Research on the educational requirements of the 50 states and the other jurisdiction has revealed a lack of consistency on the CPA licensing.

There is mixed evidence on the impact of the 150-hour requirement on the passage rates of first-time CPA candidates. In prior research studies, only 15% of first-time Florida candidates passed all the four parts in 1982 (William, Raghunandan, Brown, & Clifford, 2001). However, after the passage of the 150-hour rule in 1983, 31.5% of first-time Florida CPA candidates passed all the four sections in 1984 (William et al., 2001). The Florida decision on the 150 college credit hours for the CPA examination was validated when research studies disclosed that candidates with at least 150 hour credits are more likely to pass the CPA examination than other candidates (William et al, 2001).

According to Sullivan (2015), the current accounting curriculum in the USA should prepare accounting graduates with necessary tools to perform efficiently at their workplaces. Peters (2015) stated that the accounting curriculum should be aligned with the CPA examination content as a premise of improving the competency of accounting graduates and their successes on the CPA examination.

Ideally, a four-year undergraduate accounting education constitutes an appreciation of accounting training and a basic knowledge of professional accounting (Hopper, Storey & Wilmott, 1987). Thus, accounting faculty's encouragement for accounting students to use the fifth year for graduate school enrollment could increase student competency and preparedness for the Uniform CPA examination and professional accounting work.

Knowledge Depreciation

Since knowledge depreciates, significant debate can be made on the restructuring of undergraduate business law and tax courses. For example, the scheduling of macro and micro-economics courses for accounting undergraduate students in the sophomore year with no provision of these courses in the junior and senior years has directly impacted the success rates of first-time candidates to pass the business environment and concepts portion of the CPA examination. While it is a generally accepted theory that the passage of time places a significant role in the knowledge depreciation of a learner, program improvements and increased faculty productivity could also increase the student knowledge and retention (Lodh & Gaffikin, 1997).

Computer-based Format

A survey by Lopez and Specht (2009) confirmed that some AACSB accredited programs and public institutions had made changes to their accounting curricula prior to the implementation of the CBT format in 2004. As a result, the AACSB's accredited programs have added writing assignments and case studies to enhance candidate success rates on the CBT format of the CPA examination (Lopez & Specht, 2009). Because of these changes, Lopez and Specht (2009) argued that that the first time CBT examination candidates had higher success rates than the ones with the paper-based formats.

Research Questions

These specific eight key research questions guide the inquiry with each resulting in a hypothesis to illuminate an understanding of the research. These research questions include:

RQ1: *To what extent is the 150 hour requirement for accounting education an adequate and sufficient condition improve the success rates for candidates on the CPA exam candidates?*

RQ2: *Does increasing intermediate accounting course credit hours from six to eight credits increase the candidate success rates on the financial accounting and reporting (FARE) section of the CPA examination?*

RQ3: *To what extent is requiring six credit hours of undergraduate auditing increase the candidate success rates in the auditing section of the CPA examination?*

RQ4: *Would requiring six credit hours in advanced accounting improve candidate pass rates?*

RQ5: *Does the inclusion of government and not-for-profit accounting increase CPA candidate success rates?*

RQ6: *Would inclusion of regulation (REG) bolster candidate success rates?*

RQ7: *Does offering business environment concepts (BEC as part of the accounting curriculum increase success rates of CPA candidates?*

RQ8: *How is familiarity with knowledge of computers enhance CPA candidate pass rates?*

RESEARCH METHOD

Method

A random selection of 700 accounting academicians and students were invited to respond to survey questions on *SurveyMonkey*. Out of the 700 prospective respondents, one hundred and ninety-five (195) or (n=195), responded; thus resulting in a 27.9% response rate. The questionnaire instrument was adopted and it took approximately 15 minutes to complete the survey. The data obtained from the respondents was analyzed using *SPSS*.

Participants were asked to answer central questions that would enhance the planned analyzation of the survey. The first question addressed participant's disclosure of the highest academic degree that they have attained. The second question addressed the participants to indicate the positions that they have held at the institution. In providing reliability to the survey, respondents were asked to the types of business degrees (associate, bachelor's masters, and doctoral) that were offered at their institutions. Rating scale questions focused on whether respondents strongly agree, agree, neutral, disagree, or strongly disagree. In ascertaining the validity of this study, research methodology is used as an underlying guide (Saunders, Lewis, & Thornhill, 2009).

RESEARCH FINDINGS

There was strong agreement in requiring 150 credit hours before taking the CPA exam. According to survey participants, (n=195), 57.2% strongly agreed and 42.8% disagreed that there should be 150 credit hours before someone take the CPA exam (Table 1). With regard to requiring at least eight (8) credit hours of intermediate for bolstering candidate success rates, 60.4% of respondents agreed, while 39.6% disagreed (Table 2).

Conditionally, 59.2% agreed, 40.2% disagreed respectively that auditing courses should have six credit hours of instruction (Table 3). In Table 4, 57.8% of respondents agreed that including regulation (REG) as part of the accounting curriculum would increase candidate success rates and 42.2% disagreed. According to the survey out of the total 700 questionnaires sent, (n =195) or 27.8% responded, indicated their preference that offering business environment and concepts (BEC) would increase success rates (Table 5).

With regard to requiring six credit hours of advanced accounting, 60.5% agreed that the course offering would increase successes of CPA candidates on the financial accounting and reporting section (see Table 6). For Table 7, 58.2% agreed that offering government and not-for-profit as a component of the CPA would improve success rates. In Table 8, about 50.8% agreed that computer format has increase participant success rates.

TABLE 1
BY INCREASING THE CPA PASS RATES, CANDIDATES SHOULD HAVE 150 CREDIT HOURS BEFORE THEY TAKE THE EXAM

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	41	21.0	22.8
	2. Disagree	36	18.5	20.0
	3. Neutral	3	1.4	1.7
	4. Agree	41	21.0	22.8
	5. Strongly Agree	59	30.3	32.7
	Total	180	92.3	100.0
	6. Did not respond	15	7.7	
	Total	195	100.0	

TABLE 2
INCREASING INTERMEDIATE ACCOUNTING COURSES AT LEAST 8 CREDIT HOURS
WOULD ENHANCE CANDIDATE PASS RATES ON THE ACCOUNTING
AND REPORTING SECTION OF THE CPA EXAM

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	42	21.5	22.8
	2. Disagree	31	15.9	16.8
	3. Neutral	28	14.4	15.2
	4. Agree	35	17.9	19.1
	5. Strongly Agree	48	24.6	26.1
	Total	184	94.4	100.0
	6. Did not respond	11	5.6	
	Total	195	100.0	100.0

TABLE 3
ORDER TO INCREASE THE CPA CANDIDATE PASS RATE IN AUDITING AND
ATTESTATION, UNDERGRADUATE AUDITING SHOULD HAVE 6 CREDIT HOURS

		Frequency	Percent	Valid Percent
	1. Strongly Disagree	48	24.6	25.7
	2. Disagree	28	14.4	15.1
	3. Neutral	21	10.8	11.3
	4. Agree	37	19.0	19.9
	5. Strongly Agree	52	26.7	28.0
	Total	186	95.4	100
	6. Did not respond	9	4.6	
	Total	195	100.0	

TABLE 4
IN ORDER TO INCREASE CANDIDATE PASS RATES IN THE FINANCIAL ACCOUNTING
AND REPORTING SECTION OF THE CPA EXAM, ADVANCED ACCOUNTING
SHOULD HAVE AT LEAST 6 CREDIT HOURS

	Frequency	Percent	Valid Percent
Valid. 1. Strongly Disagree	41	21.0	22.5
2. Disagree	31	15.9	17.0
3. Neutral	24	12.3	13.2
4. Agree	36	18.5	19.8
5. Strongly Agree	50	25.6	27.5
Total	182	93.3	
6. Did not respond	13	6.7	
Total	195	100.0	100.0

The auditing section of the CPA examination had the second highest cumulative pass rates in 2017 (see Appendix 1). Though the materials in the Auditing section of the exam had fundamental concepts, exam candidates stated that the exam questions were confusing because there could be more than one answer for some of the questions. It is indicative that while the auditing section was more theory-based, the other sections of the exam; namely financial accounting and reporting (FAR), regulations (REG), and Business environment and concepts (BEC) required candidates to memorize.

According to AICPA (2017), the business environment and concepts continue to have the highest cumulative passing rates. The reason for the higher BEC passing scores was that examination candidates often took the BEC examination after successfully completing the other three sections. The AICPA (2017), disclosed that the large volume of information in the FAR section has contributed to low candidate pass rates. In the regulation portion, candidates have expressed the difficulty of the exam due their lack of understanding of non-accounting information on business law and tax regulations. As a consequence, the REG section has the second lowest cumulative pass rates for fourth quarter ending, 2017.

TABLE 5
OFFERING GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING AS PART OF THE
ACCOUNTING CURRICULUM WOULD INCREASE IN THE FINANCIAL
ACCOUNTING AND REPORTING SECTION OF THE CPA EXAM

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	42	21.5	22.5
	2. Disagree	36	18.5	19.3
	3. Neutral	12	6.2	6.4
	4. Agree	41	21.0	21.9
	5. Strongly Agree	56	28.7	29.9
	Total	187	95.9	100.0
	6. Did not respond	8	4.1	4.1
	Total	195	100.0	100.0

TABLE 6
OFFERING REGULATION (REG) AS PART OF THE ACCOUNTING CURRICULUM
WOULD INCREASE CPA CANDIDATE PASS RATE

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	46	23.6	24.6
	2. Disagree	33	16.9	17.6
	3. Neutral	16	8.2	8.6
	4. Agree	42	21.5	22.5
	5. Strongly Agree	50	25.6	26.7
	Total	187	95.9	100.0
	6. Did not respond.	8	4.1	
	Total	195	100.0	100.0

TABLE 7
OFFERING BUSINESS ENVIRONMENT CONCEPTS (BEC) AS PART OF THE
ACCOUNTING CURRICULUM WOULD INCREASE IN THE
BEC SECTION OF THE CPA EXAM

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	48	24.6	26.2
	2. Disagree	20	10.3	10.9
	3. Neutral	27	13.8	14.8
	4. Agree	37	19.0	20.2
	5. Strongly Agree	51	26.2	27.9
	Total	183	93.8	100.0
	6. Did not respond	12	6.2	
	Total	195	100.0	

TABLE 8
COMPUTER FORMAT OF THE CPA EXAM HAS INCREASED
CANDIDATE SUCCESS RATE

		Frequency	Percent	Valid Percent
Valid	1. Strongly Disagree	40	20.5	21.2
	2. Disagree	53	27.2	28.0
	3. Neutral	14	7.2	7.4
	4. Agree	43	22.1	22.8
	5. Strongly Agree	39	20.0	20.6
	Total	189	96.9	100.0
	6. Did not respond	6	3.1	
	Total	195	100.0	100.0

DISCUSSION AND CONCLUSIONS

This study examined the CPA candidate success rates, retooling of the accounting education, and implementing the CPA review materials as part of the accounting curriculum. With the dismal rate of CPA candidate success rates, it is hopeful that an overhaul of the accounting curriculum is needed in order to increase the success rates of candidates. Additionally, this study concluded that intermediate

accounting course credits should be increased to at least eight credit hours, as well as increasing undergraduate auditing from three to six credit hours.

This study provides future opportunities to replicate, confirm, and build upon the research using the same survey instruments to evaluate the effectiveness of accounting course delivery preparations in earning certifications and competencies on the CFE, CIA, and CMA and other accounting professional examinations. The benefits of such studies will provide insights and understanding for the certification as well as the competency of accounting graduates.

LIMITATIONS AND FUTURE RESEARCH

Because of limitations, generalization of the results of this study must be done with caution. The random selection of 700 academicians and administrators is a smaller sample due to the number of accounting students in the U.S. The survey was completed via *SurveyMonkey* and most of the respondents may have time constraints to complete the survey, which could lead to different results.

Additionally, other factors such as knowledge depreciation, the quality of accounting, and the GPA of candidates may be contributing factors to the success rates of first-time CPA candidates. It is probable that controlling for these factors might lead to different results. It is also likely that the composition of the additional credits beyond the 120 undergraduate hour requirement may not be a significant predictor of the success rates of first-time CPA candidates. The conceptual and practical implications of the findings provide hard lessons for the design of other certifications, such as CFE, CIA and CMA. As a consequence, future research is needed for this topic.

Future research studies could perform needed investigations that may impact the quality of accounting education. This is also likely to improve CPA candidate success rates. Additionally, future studies on CPA success rates could render much needed values to the accounting graduates who aspire to sit for the CPA exam.

REFERENCES

- Albrecht, W., & Sack, R. (2000). *Accounting education: Charging the course through a perilous future* (vol.16). Accounting Education series. Sarasota, FL: American Accounting Association.
- Arthur Andersen & Co. (1989). *Perspectives on education: Capabilities for success in the accounting profession*. New York, NY.
- Ashbaugh, H., Johnstone, K. M., & Warfield, T. D. (2002). Outcome assessment of writing-skill improvement initiative: results and methodological implications. *Issues in Accounting Education*, 17(2), 23-148.
- Biggs, G. P., & Lerong, H. (2012). The 150 credit-hour requirement and CPA examination pass rates – a four year study. *Accounting Education: an international journal*, 21(1), 97-108.
- Boyle, D., Mahoney, D. P., Carpenter, B. W. M., & Grambo, R. J. (2014). The importance of communication skills at different career levels. *The CPA Journal*, 84(6), 40.
- Brahmasrene, T., & Whitten, D. (2001). Assessing success on the Uniform CPA exam: A logit Approach. *Journal of Education for Business*, 77(1), 45-50.
- DeFelice. (2010). CPA exam to undergo an evolution. *Journal of Accountancy*, 209(5), 54-56.
- Elliot, R. (1997). Assurance services and the audit heritage. *The CPA Journal*, 68(June), 40-46.
- Gleim, I. N. (2014). *CPA Review: Regulation*. Gainesville, FL: Gleim Publications, Inc.
- Gleim, I. N., & Hillison, W. A. (2016). *CPA Review: Auditing and Attestation*. Gainesville, FL: Gleim Publications, Inc.
- Grant, C. T., Ciccotello, C. S., & Dickie, M. (2002). Barriers to professional entry: how effective is the 150-hour rule? *Journal of Accounting and Public Policy*, 21, 71-93.
- Lodh, S. C., & Gaffikin, R. R. (1997). Critical studies in accounting research, rationality and Habermas: a methodological reflection. *Critical Perspectives on Accounting*, 433-474.
- Lopez, K. J., & Specht, L. B. (2009). The Computer-based CPA Exam: Effects on curricular change and measures of outcome assessment. *The CPA Journal*, 79(9), 64-70.
- Minnesota Society of Certified Public Accountants. (2018). National CPA Exam Statistics. Retrieved from <https://www.mncpa.org/becoming-a-cpa/cpa-exam/exam-facts/exam-statistics/>
- Munter, P., & Reckers, M. J. (2009). IFRS and collegiate accounting curricula in the United States: A survey of the current state of education conducted by KPMG and the education committee of the American Accounting Association, *Issues in Accounting Education*, 24(2), 131-139.
- National Association of State Boards of Accountancy. (2008, November). Draft of Education and Licensure Requirements for Certified Public Accountants: A Discussion Regarding Degreed Candidates Sitting for the Uniform CPA Examination with a Minimum of 120 Credit Hours (120-Hour Candidate) and Becoming Eligible for Licensure with a Minimum of 150 Credit Hours (150-Hour Candidate) (120/150 Discussion). Retrieved from http://www.masba.org/files/2011/03/120_150_Draft_New_Margin-Nov081.pdf
- Peters, J. (2015). A look at the professions uncertain future. *CPA Journal*, 85(12), 80.
- Rothenburg, E. (2002). How writing across the curriculum can be incorporated into accounting Programs? *CPA Journal*, 72(4), 14-14.
- Sharma, S., Agarwal, A., Agarwal, I., & Gupta, A. (2019). A cross-cultural examination on the role of emotional intelligence in predicting negotiation effectiveness. *SAM Journal*, 82(4), 20-39.
- Sullivan, C. (2015). CPA pass rates in Texas: A 10-year analysis. *Journal of Business and Accounting*, 8(1), 171-178.
- Whitten, D., Brahmasrene, T., & Meszaros, B. (2002). Passing the Uniform CPA Exam: What factors matter? *CPA Journal*, 72(1), 60.
- William, J., Raghunandan, K., & Brown, C. (2001). 150-hour preparation improves CPA exam performance. *The CPA Journal*, 71(3), 30.

APPENDICES

APPENDIX 1 UNIFORM CPA EXAMINATION PASS RATES 2017

SECTION	1 ST QUARTER	2 ND QUARTER	3RD SECTION	4 TH SECTION
AUD	43%	52%	52%	48%
BEC	50%	55%	55%	55%
FAR	43%	44%	48%	43%
REG	46%	48%	49%	46%

APPENDIX 2 UNIFORM CPA EXAMINATION PASS RATES 2016

SECTION	1 ST QUARTER	2 ND QUARTER	3RD SECTION	4 TH SECTION
AUD	45%	49%	45%	44%
BEC	55%	56%	58%	53%
FAR	45%	46%	48%	43%
REG	48%	50%	50%	46%

APPENDIX 3 UNIFORM CPA EXAMINATION PASS RATES 2015

SECTION	1 ST QUARTER	2 ND QUARTER	3RD SECTION	4 TH SECTION
AUD	45%	49%	48%	47%
BEC	53%	58%	59%	55%
FAR	44%	49%	50%	43%
REG	48%	51%	51%	47%

APPENDIX 4 UNIFORM CPA EXAMINATION PASS RATES 2014

SECTION	1 ST QUARTER	2 ND QUARTER	3RD SECTION	4 TH SECTION
AUD	47%	49%	47%	42%
BEC	53%	58%	58%	52%
FAR	44%	48%	51%	46%
REG	49%	52%	52%	44%

Minnesota Society of Certified Public Accountants (2019)

**APPENDIX 5
UNIFORM CPA EXAMINATION PASS RATES 2013**

SECTION	1 ST QUARTER	2 ND QUARTER	3RD SECTION	4 TH SECTION
AUD	45%	48%	47%	43%
BEC	53%	56%	59%	54%
FAR	47%	49%	51%	45%
REG	49%	50%	50%	47%

Minnesota Society of Certified Public Accountants (2019)

**APPENDIX 6
KNOWLEDGE DEPRECIATION HAS AFFECTED CPA CANDIDATE SUCCESS RATES**

		Frequency	Percent	Valid Percent
Valid	1. Strongly Agree	48	24.6	26.4
	2. Disagree	28	14.4	15.4
	3. Neutral	5	2.6	2.7
	4. Neutral	54	27.6	29.7
	5. Strongly Agree	47	24.1	25.8
	Total	182	93.3	100.0
	6. Did not respond.	13	6.7	6.7
	Total	195	100.0	100.0