

## **AACSB Accreditation and Success on the Uniform CPA Exam**

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*If colleges are to exert considerable effort to meet AACSB standards, then these colleges should expect to receive some benefit from such effort. One such benefit would be better-trained students. This paper is based on a study of 180 practicing CPAs from several southern and mid-western states. When the subjects were divided into those from AACSB and those from non-AACSB colleges and a t-test was performed, three factors were found to be significant. CPAs from AACSB colleges, on average, passed the CPA exam in .56 fewer attempts, had a 48-point higher SAT score, and were more likely to possess a master's degree. However, when a regression analysis was conducted, AACSB accreditation, GPA, and a classroom CPA exam review program were found to be significant in producing fewer attempts to pass the CPA exam. These results indicate that various factors have some influence on the number of attempts to pass the CPA exam, but AACSB accreditation status may have a substantial influence in reducing the number of attempts to pass the CPA exam.*

### **INTRODUCTION**

AACSB (Association to Advance Collegiate Schools of Business) accreditation standards are fairly rigorous and are difficult for colleges to meet. If a college is to exert considerable effort to meet such standards, then the college should expect to receive some benefit from such effort. One such benefit would be better-trained students. If CPAs from AACSB accredited colleges passed the CPA exam in fewer attempts than CPAs from non-AACSB colleges, this may indicate a substantial benefit from AACSB accreditation. Of course, others factor such as SAT score, GPA, age, highest degree held, years since passing, and classroom or self-study CPA exam review course must be taken into account as factors that contribute to success on the CPA examination.

Hardin and Stocks (1995) surveyed persons who recruit entry-level accountants for CPA firms and corporations. The study found that graduates from AACSB accredited colleges were evaluated more positively than graduates from non-AACSB accredited colleges. Unfortunately, there was no attempt by this study to discover why potential employers considered AACSB

accreditation as a positive factor in their hiring decisions. It appears that employers perceived colleges with AACSB accreditation as ensuring “better accounting training” than non-AACSB accredited colleges, but is this truly the case? This study endeavors to answer this question.

Marts, Baker, and Garris (1988) performed a study in which they used data gathered by the National Association of State Boards of Accountancy (NASBA) for the uniform CPA exam for 1985 and 1986. This study found the first-time passing rates for candidates at AACSB accredited colleges to be significantly higher than non-AACSB colleges. Also, this study compared colleges with “general” AACSB accreditation to colleges that also have their accounting programs separately accredited by the AACSB. The study found no significant difference in first-time passing rates between colleges with “general accreditation” and colleges that have their accounting programs separately AACSB accredited (Marts, Baker, and Garris, 1988).

Unfortunately, Marts, Baker, and Garris made no attempt to determine why AACSB colleges had higher passing rates than non-AACSB accredited colleges. AACSB colleges may simply attract better students than non-AACSB colleges. AACSB accreditation may not have a significant influence on passing rates between AACSB colleges and non-AACSB colleges when one considers that colleges with the separate and higher AACSB accounting accreditation (AACSB, 1986) were found not to be significantly higher in their first time CPA passing rates than colleges with the “general” AACSB accreditation (Marts, Baker, and Garris, 1988).

A later study using data from the both 1997 CPA exam sittings gathered by the National Association of State Boards of Accountancy failed to find a significant relation between CPA exam first time passing rates and the colleges’ AACSB accreditation status (Lindsay and Campbell, 2003). However, this study did find a significant and positive relation between CPA exam first time passing rates and the colleges’ average ACT score and a significant and positive relation between AACSB accreditation status and the colleges’ average ACT score. These results suggest that college’s first time CPA exam passing rate may have more to do with its admission standards than AACSB accreditation status.

Until recently, the CPA exam format had remained fairly constant for decades. Recent changes in the CPA exam format may have made comparability of the exam before 2004 with the exam after 2004 impossible. According to the Association of State Boards of Accountancy the four parts of the exam may now be taken, and credit received for passing, one part at a time. The old format required all four parts of the exam to be taken at one of the exam’s bi-annual sittings, with at least two parts passed outright and the other two parts obtaining a score of at least 50% in order for any passing credit to be received.

The main purpose of this study was to determine if AACSB accreditation provides better training for accounting students, and if so, why? Although closely related, this study’s purpose was not to determine factors that lead to first time passing of the CPA exam. This study surveyed persons as to how many sittings were required for them to pass the CPA exam. This measure of success in passing the CPA exam was selected as an objective standard to determine training effectiveness at many different colleges over time. In general, this study assumed that persons who passed the CPA exam in fewer attempts were better trained than those that required more attempts, but more importantly; what factors contributed to rapid passing of the exam. Is inherent intelligence, as measured by SAT score, the major contributing factor in rapid passing or is AACSB accreditation a proxy for more rigorous training and testing.

## METHOD

An on-line survey was sent to a sample of CPAs employed at accounting firms. One hundred and eighty responses were received, a response rate of 18% percent. Respondents were asked on what attempt was the CPA exam passed, year passed, highest degree held when passed, self-study or classroom review course, was the business college AACSB accredited, name of college and location, their SAT or ACT score, age when CPA exam was passed, and overall college GPA. The accuracy of the colleges' accreditation was verified with information provided by the AACSB to determine if the school was AACSB accredited when respondent attended. ACT scores were converted using a scale that transforms the composite ACT score to its equivalent SAT score and for respondents who did not remember their score, their college's average score was used.

## RESULTS

An important question given the purpose of this study is how comparable are the AACSB and non-AACSB respondents. To look at this question, the two groups' responses to the survey questions are compared and presented in Table 1. The non-AACSB and AACSB respondents are similar in age, years since passing the CPA exam, undergraduate college GPA, and preparing for the CPA exam by self-study rather than a commercial review course. The two groups significantly differed on three variables. Significant difference was found for average SAT score with the AACSB school graduates averaging about 50 points higher. Second, AACSB school graduates were more likely to have a post baccalaureate degree, 26% compared to 12%, at the time the CPA was passed. Lastly, the AACSB school graduates passed the CPA exam on fewer attempts than the non-AACSB graduates, an average of 2.24 compared to 2.8 times. These data do show that there is a significant difference between the two groups on this key measure of interest: attempts to pass. Other than this, in general, the two groups are similar with the other major differences being slightly higher average SAT score and percentage with graduate degrees for the AACSB school graduates.

**TABLE 1**  
**DESCRIPTIVE STATISTICS: NON-AACSB AND AACSB SCHOOL GRADUATES**

Variable	Non-AACSB	AACSB	Significant Difference
	N = 49	N = 131	
	Mean		
	Standard Deviation		
Age Passed CPA	25.5 4.3	25.8 5.1	No
GPA	3.41 .39	3.37 .40	No
Years Since Passing CPA	17.33 9.56	17.10 10.62	No

<b>Number of Times To Pass CPA Exam</b>	<b>2.80 2.71</b>	<b>2.24 2.09</b>	<b>Yes (p &lt; .05)</b>
<b>SAT Score</b>	<b>1112.1 139.3</b>	<b>1160.8 126.1</b>	<b>Yes (p &lt; .05)</b>
<b>Highest Degree Bachelor's</b>	<b>0.88 .33</b>	<b>0.74 .77</b>	<b>Yes (p &lt; .05)</b>
<b>Self Study for CPA (No review course)</b>	<b>0.61 .49</b>	<b>0.56 .50</b>	<b>No</b>
<b>Proportion Who Knew School AACSB</b>	<b>NA</b>	<b>.30</b>	<b>NA</b>

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**NA = Not Applicable**

The correlations in table 2 show that for the entire sample of CPAs the number of times to pass the CPA exam was significant and negatively related to graduating from an AACSB college, GPA, and SAT score. This suggests that higher GPA and SAT score at any college and attending an AACSB school are characteristics associated with passing the CPA exam in fewer attempts. Significant positive correlations between the number of attempts to pass the CPA were found with preparing for the CPA by self-study and having a bachelors as the highest earned degree. This implies that self-study may not be as effective in preparing for the CPA exam as taking a commercial review course. The positive association between number of times to pass and highest degree shows that having a bachelors degree only is associated with taking the CPA exam more times before passing compared to those with graduate degrees.

Interpreting the relationship between graduate degree and CPA exam success may not be this straightforward. If respondents went directly from the undergraduate to graduate degree program, it might be that they deferred taking the CPA until finishing the graduate degree. One argument is that obtaining the graduate degree contributed to passing the CPA on fewer tries. Another plausible argument is that going into a graduate degree program delayed taking the exam, which if done earlier, would still have resulted in fewer tries to pass. This latter argument assumes that the graduate degree did not enhance the individual's success on the CPA. Rather, candidates' personal attributes and characteristics were more important determinants of performance on the CPA than having a graduate degree. Perhaps having a graduate degree indicates individuals with a higher level of motivation and a stronger goal orientation. Arguably, such individuals might work harder towards significant goals such as passing the CPA than others without this level of drive. Also, graduate degree holders may have on average higher ability levels than undergraduate degree recipients. The negative, significant correlation between bachelor degree and SAT score shows that bachelor only degree holders have lower average SAT scores than graduate degree holders (Bachelors average = 1132; Graduate degree holder average = 1201,  $p < .05$ ). This might give advanced degree holders some ability edge in passing the CPA in fewer tries. With the data available here, it is not possible to identify the nature of the relationship between highest degree and the number of tries to pass the CPA.

**TABLE 2**  
**CORRELATIONS FOR ALL RESPONDENTS, N=180**

	<b>Age CPA Passed</b>								
<b>1. GPA</b>	<b>-0.014</b>								
	<b>0.854</b>		<b>GPA</b>						
<b>2. Years since passing</b>	<b>-0.360</b>	<b>-0.262</b>		<b>Years since passing</b>					
	<b>0.000</b>	<b>0.000</b>							
<b>3. Number of times to pass CPA</b>	<b>-0.066</b>	<b>-0.256</b>	<b>0.084</b>		<b>Number of times to pass</b>				
	<b>0.381</b>	<b>0.001</b>	<b>0.263</b>						
<b>4. SAT score</b>	<b>0.040</b>	<b>0.257</b>	<b>-0.151</b>	<b>-0.175</b>		<b>SAT Score</b>			
	<b>0.597</b>	<b>0.001</b>	<b>0.042</b>	<b>0.019</b>					
<b>5. Bachelors Highest Degree</b>	<b>-0.115</b>	<b>-0.177</b>	<b>0.240</b>	<b>0.147</b>	<b>-0.219</b>		<b>Bachelors Highest Degree</b>		
	<b>0.125</b>	<b>0.018</b>	<b>0.001</b>	<b>0.049</b>	<b>0.003</b>				
<b>6. Self Study For CPA</b>	<b>-0.092</b>	<b>0.071</b>	<b>0.096</b>	<b>0.150</b>	<b>0.012</b>	<b>-0.003</b>		<b>Self Study for CPA</b>	
	<b>0.220</b>	<b>0.346</b>	<b>0.198</b>	<b>0.044</b>	<b>0.870</b>	<b>0.968</b>			
<b>7. AACSB Accredited School</b>	<b>0.024</b>	<b>-0.043</b>	<b>-0.010</b>	<b>-0.176</b>	<b>0.166</b>	<b>-0.147</b>	<b>-0.049</b>		
	<b>0.752</b>	<b>0.568</b>	<b>0.896</b>	<b>0.018</b>	<b>0.026</b>	<b>0.049</b>	<b>0.510</b>		

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**Pearson correlation**  
**P-Value**

A regression analysis of the data was conducted to see what impact different predictors had on the number of times to pass the CPA (i.e., CPA passing rate). In the regression in Table 3 A, CPA passing rate is regressed on all five of the predictor variables as a group. The adjusted R<sup>2</sup>

was 11.2% and the equation was significant ( $F= 5.50, p < .0001$ ). This regression shows that average GPA and AACSB business school are significant and lower the CPA passing; that is higher GPA and graduating from a AACSB school contribute to passing the CPA exam on fewer attempts. On the other hand, preparing for the CPA by self-study is a factor that increases the number of times it takes to pass the CPA exam.

**TABLE 3 A  
REGRESSION ANALYSIS**

**Dependent Variable: Number of Times to pass CPA**  
**Predictors: SAT, GPA, Highest Degree, Self Study, and AACSB School**

**Dependent variable: Number of Times to pass CPA**

<b>Predictor:</b>	<b>Coef</b>	<b>SE Coef</b>	<b>T</b>	<b>P</b>
Constant	2.38889	0.09973	23.95	0.000
stdSAT	-0.1056	0.1066	-0.99	0.323
stdGPA	-0.3456	0.1051	-3.29	0.001
stddeg	0.0924	0.1042	0.89	0.377
stdrev	0.2283	0.1004	2.27	0.024
stdAA	-0.2221	0.1028	-2.16	0.032

**S = 1.338    R-Sq = 13.7%    R-Sq(adj) = 11.2%**

**Analysis of Variance**

<b>Source</b>	<b>DF</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>P</b>
Regression	5	49.266	9.853	5.50	0.000
Residual Error	174	311.512	1.790		
Total	179	360.778			

**TABLE 3 B  
STEPWISE REGRESSION**

**Dependent Variable: Number of Times to pass CPA**  
**Predictors: SAT, GPA, Highest Degree, Self Study, and AACSB School**

<b>Step</b>	<b>1</b>	<b>2</b>	<b>3</b>
Constant	2.389	2.389	2.389
stdGPA	-0.36	-0.37	-0.39
T-Value	-3.53	-3.70	-3.89
P-Value	0.001	0.000	0.000
stdAA		-0.27	-0.26
T-Value		-2.62	-2.54
P-Value		0.009	0.012

stdrev			0.23
T-Value			2.27
P-Value			0.024
S	1.38	1.35	1.34
R-Sq	6.55	10.05	12.61
R-Sq(adj)	6.03	9.03	11.13
C-p	12.3	7.3	4.1

A stepwise regression analysis is reported Table 3 B. In this procedure, predictor variables are entered based on the variable's impact on the dependent variable. The strongest predictor variable is entered first and in subsequent steps the next strongest significant variable is entered. The process ends when the last significant predictor has been entered. This procedure results in a final regression equation where the significant predictors are in rank order based on the predictor's impact on the dependent variable. In the stepwise regression, GPA entered first followed by AACSB status and finally self-study. The predictor variables were converted to standard scores, a transformation that results in the regression coefficients also being standardized to a common metric. This allows us to compare the actual magnitude of the predictor variables' impact on the dependent variable relative to others in the equation. This shows that GPA has the largest impact on the passing rate, with a one-unit increase in GPA lowering the number of times to pass the CPA by .39. AACSB school attendance also lowers the number of times to pass the CPA. Graduates of AACSB schools have a passing rate that is .26 lower than non-AACSB graduates. The last significant predictor in magnitude is self-study to prepare for the CPA exam. The standardized coefficient indicates that preparing by self-study increases the number of times to pass the exam by .23.

## DISCUSSION

The purpose of this exploratory study was to see if there is a difference in the number of attempts to pass the CPA exam for graduates of AACSB and non-AACSB business schools. A sample of CPAs was surveyed to investigate this question. We found that undergraduate GPA, AACSB status, and self-study for the CPA were significantly predictive of the number of times it took to pass the CPA exam (Table 3). The predictor with the strongest impact was undergraduate GPA, a result that might give credence to the statement that grades mean something. Students who have high GPAs would be expected to have a stronger understanding of accounting that would in and of itself better prepare them for the CPA exam. There is a measure of satisfaction in being able to point out that effort in school is reflected in performance on the CPA exam. Perhaps this is a message worth mentioning to our students.

We also found that SAT score, AACSB accreditation, and graduate degree had a significant effect on the number of attempts to pass the CPA exam (Table 1). This leads to the next question: what accounts for the advantage that AACSB schools have? AACSB accredited colleges appear to attract better students as shown by their significantly higher SAT scores. If a college's AACSB status did attract better students, this alone might justify the extra effort and expense of obtaining accreditation. Unfortunately, only 30% of the respondents from AACSB colleges were aware of the college's AACSB accreditation.

So, one might make the case that students at AACSB colleges pass the CPA exam in fewer attempts because, for whatever reason, AACSB colleges simply attract better students than non-AACSB colleges. However, this conclusion disregards other findings of this study. GPA was not found to be significantly different between AACSB accredited colleges and non-AACSB accredited colleges (Table 1) but regression indicated that GPA, not SAT, and AACSB accreditation were significantly related to fewer attempts to pass the CPA exam (Table 3). Also a correlation of all respondents indicated a strong positive relation between SAT and GPA; and both SAT and GPA were strongly correlated with fewer attempts to pass the CPA exam (Table 2). If GPA and SAT are strongly correlated with one another as well as with fewer attempt to pass the CPA exam and regression indicated that GPA and AACSB are significant factors in producing fewer attempts to pass the CPA exam, then why was SAT found by the t-test to be significantly different between AACSB and non-AACSB accredited colleges and GPA was not found to be significantly different?

GPA is an indication of success on tests during a student's college career. The CPA exam is a textbook exam; so, high GPA would be expected to correlate with fewer attempts to pass the CPA exam. Given the strong correlation between GPA and SAT and the significant different between AACSB and non-AACSB accredited colleges for SAT score but not for GPA, one may conclude that whereas AACSB colleges attract slightly better students it is more difficult for students from AACSB accredited colleges to obtain the equivalent grades than students from non-AACSB accredited colleges. Hence, it is not surprising that in our sample average GPA is higher (though not significantly) in non-AACSB schools compared to AACSB schools. One could also conclude that professors at AACSB accredited colleges may be more demanding of their students than professor at non-AACSB accredited colleges. The results being that graduates of AACSB schools may have a stronger accounting knowledge base that would better prepare them for the CPA exam and contribute to their quicker success at passing the exam.

Another issue worthwhile to consider would be faculty quality. Perhaps, it may be assumed that AACSB schools have a higher quality faculty based on the accreditation standards that apply. The argument could be made that higher quality faculty would lead to higher quality programs and to graduates better prepared to take the CPA exam, a factor aiding the passing rate advantage seen in the data for AACSB school graduates. Having some metric to assess overall faculty quality in accounting, however, would enable this proposition to be assessed empirically.

Additionally personality factors might also be incorporated into future research. A first step here would be to develop a theoretical framework by which the factors that might bear on CPA exam performance are identified. It would be expected that a combination of personal and environmental/situational factors would be involved. We previously alluded to motivational and goal oriented attitudes in discussing the role of GPA and SAT scores. We suggested that these may serve as proxies for personality characteristics that may bear on CPA exam performance. The potential role of such factors needs to be theoretically framed. This would ground subsequent research in theory and identify personal/individual factors likely to affect CPA exam performance.

In conclusion, this study has found a difference in the number of times to pass the CPA. And, it appears that AACSB school graduates perform better than non-AACSB graduates. Future research evolving from a theoretical foundation would considerably advance our understanding of AACSB accreditation's role. This research has just scraped the surface of what could be another avenue with which to assess performance outcomes for business schools. It may be worthwhile to pursue more work in this area.



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