

# **Motivating your students to take the CPA Exam**

By

Gregory L. Krippel  
Associate Professor of Accounting  
Wall College of Business Administration  
Coastal Carolina University  
843-349-2643  
[krippel@coastal.edu](mailto:krippel@coastal.edu)

And

John Marics  
Professor of Economics  
Wall College of Business Administration  
Coastal Carolina University

And

John Mortimer  
Assistant Professor of Accounting  
Wall College of Business Administration  
Coastal Carolina University

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## Abstract/Introduction

The point of this study is to give Accounting Professors a tool to motivate students to take the CPA exam. We calculate the present value of the superior earnings of certificate holders vs. non-certificate holders over the average career of an accounting professional. We calculated the superior earnings of certificate holders from two separate salary sources from the IMA and from Robert Half and Associates employment search firm. We calculate the present value of the superior earnings back to the date of certification. The present value of the CPA designation according to our estimates based on the IMA numbers is \$386,641 and according to our estimates based on Robert Half numbers it is \$340,500. Accounting professors should be able to motivate their students with these certification premiums.

## Literature Review

Studies by the AICPA on the Demand and Supply of Accounting Majors has consistently found evidence that some of the primary reasons students pick Accounting as a profession is because of job security and high paying salaries. This generation appears to be fairly money motivated at least initially. By showing them the present value of passing the exam and then dividing that number by the standards number of hours most authorities suggest is needed to pass the exam we can show them what it is worth for every hour they are studying what their return on study time.

AICPA Supply and Demand for Accounting Students has surveyed literally thousands of accounting majors over many years. When it came to the question of why they decided to major in accounting two reasons have always topped the list, first job security and second good salaries. So it appears, at least initially, that accounting majors are very much motivated by financial rewards. Also the literature suggests that many students are working part-time jobs to help them support their living and educational expense. So there are great demands on this generation's time.

These pressures make them often have to decide between putting more study time in for delayed gratification versus more work time for immediate gratification. The immediate gratification is a strong influence on their decision making process. We have designed this study to take the delayed gratification from putting in the study hours needed to pass the CPA exam and bring it to an immediate gratification in the form of the present value of each hour they study for the exam.

We could not find any articles that specifically used the CPA salary premium to motivate students to take the CPA exam or more importantly to study to pass the exam. To the best of our knowledge we are the first to tie present value of the salary premium summed over a career to the hours it takes to pass the exam.

## Methodology

This study was conducted by first gathering accounting professional salary information from both Strategic Finance's IMA 2005 Annual Survey article [1] and Robert Half International 2005 Annual Salary Guide [2]. The IMA survey collects salary survey information of accounting professionals in private accounting at various ages with and without certification. We used these average salary figures for our structural anchor points on which we built our estimated accounting professional's life time career earnings table both with and without certification. From these two columns of earnings we determined the certification premium and then discounted each year's premium back to the present value and summed this amount. This final sum represents the present value of the CPA certification on the very day that the accounting major passes from pupil to professional or perhaps more appropriately at least the initial stages of being a professional and certainly no longer just an accounting student. Of course to pass the exam they must first complete a rigorous study program of hundreds of hours. By dividing the total life time career CPA salary premium by the 400 hours of study we produce the present value of each hour of studying is worth. We calculated that the total life time CPA salary premium amounted to \$386,641 and dividing this by the 400 hours resulted in each hour that the student studies the CPA exam they are earning \$967 per hour in present value discounted at 5%. It is as if after each hour they study they have someone hand them a check for \$967. This should open there eyes and help keep themselves motivated.

In order to add some verifiability or reliability to our results we decided to also estimate the present value of CPA certification using a completely different source the Robert Half International's 2005 Annual Salary Guide. Robert Half's accounting salary numbers could be considered more reliable in that they reflect the actual starting salaries for the thousands accounting professionals which they place in corporations. Since their finder fee is based on the accounting professional's salary they are in a position to report more reliable numbers than the IMA Survey. In fact the US Bureau of Labor uses Robert Half's numbers for accounting salary numbers between censuses. The IMA survey has hundreds of self reported salaries numbers where Robert Half has thousands of arm's length two party negotiated salary numbers. Of course in addition the IMA survey's much smaller sample size it could also suffer from an upward self reporting bias. It seems reasonable to assume that individuals may tend to report salaries higher than they really are unless they are talking to the IRS.

Robert Half [RH] reports there salary numbers differently then the IMA Salary Survey. RH reports salaries by job title i.e., Entry Level, Senior, Manager, Assistant Controller, Controller, Vice President and CFO/Treasurer. They report each of these positions' salaries separately for small, medium and large firms. They do not report separate salary numbers for CPAs and non CPAs; however they do recommend adding up to a 10% premium for certification or graduate degrees. However, they state that it is assumed that Controller, Vice President and CFO/Treasurer positions all have a certification and/or graduate degree. We used these average salary figures for our structural anchor points on which we built our estimated accounting professional's year-by-year life time career earnings table both with and without certification. We had to estimate the average age at each job title and impute the salary levels between promotions.

Then we calculated the certification premium as 10% of these salary levels up to just before an Assistant Controller becomes a Controller.

Up to the Controllershship level i.e., Entry level, Senior, Manager, and Assistant Controller, the certification premium is just the additional amount of salary companies pay for certification. In other words it is an added bonus a very nice thing to have on the resume. However, from the Controllershship position and beyond i.e., VP of Finance and CFO, the premium becomes a penalty for not having it. Meaning that non certified accountants are in effect are facing a certification ceiling in their careers. They will not be able to advance beyond Assistant Controllershship salary levels. Now for this stage of their career the penalty for not having been certified is calculated by the difference between the top Assistant Controllershship salary and respectively salary levels of Controllershship, Vice President of Finance and CFO/Treasurer across the appropriate life time career years. We calculated that the total life time CPA salary premium average across large firms and medium size firms and that average amounted to \$340,500 and dividing this by the 400 hours resulted in each hour that the student studies the CPA exam they are earning \$851 per hour in present value. It is as if after each hour they study they have someone hand them a check for \$851. This should really open there eyes and help keep themselves motivated.

#### REFERENCES

- [1] Reichardt, K. I. and D. L. Schroeder, 2006. "IMA 2005 Salary Survey", *Strategic Finance*, June, pp. 34-50.
- [2] Robert Half and Associates, 2005, "*2005 Salary Guide*", Robert Half and Associates.pp 1-29.