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Influence of the CPA credential on the life satisfaction of University of Northern Iowa accounting alumni

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INFLUENCE OF THE CPA CREDENTIAL ON THE LIFE SATISFACTION OF

UNIVERSITY OF NORTHERN IOWA ACCOUNTING ALUMNI

A Thesis Submitted

in Partial Fulfillment

of the Requirements for the Designation

University Honors with Distinction

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University of Northern Iowa

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This study by: Derek Koppes

Entitled: Influence of the CPA Credential on the Life Satisfaction of University of Northern Iowa Accounting Alumni

Has been approved as meeting the thesis or project requirement for the Designation University Honors with Distinction.

5/9/2022   Joseph Ugrin

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5/9/2022   Jessica Moon

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Date   Dr. Jessica Moon, Director, University Honors Program

Abstract

This paper aims to explore the relationship between obtaining a CPA as a University of Northern Iowa accounting graduate and measures of life satisfaction. In this study, survey data were collected from a random sample of University of Northern Iowa accounting graduates. The research suggests that graduates who obtained the CPA credential have higher levels of life satisfaction. Accounting students at the University of Northern Iowa for years to come stand to benefit greatly from this research because the results of this study provide more insight into the favorable outcomes that are enjoyed by accounting alumni who elected to pursue the CPA credential.

I.   Introduction

As a passionate University of Northern Iowa (UNI) business student, I am interested in the true, professional value that this university, and particularly the accounting department, offers to its students. However, that has not always been a keen interest of mine. As a high school student and underclassmen at the university, I was oblivious towards the incredible opportunities the University of Northern Iowa's accounting program has to offer. In the world of accounting, the attainment of the Certified Public Accountant (CPA) credential is a crucial factor in gaining entry-level positions to kickstart one's career (University of Northern Iowa, 2022). Not only is there a strong emphasis for students at Northern Iowa to pursue this credential, according to an article on the website AccountingToday (Davis et al., 2021), the University consistently ranks as one of the top schools in terms of CPA pass rate. Due to the university's reputation and impressive performance, graduates of UNI's accounting program are typically well-prepared and equipped to begin a successful and fulfilling career. With this in mind, the goal for this research was to determine just how valuable the CPA credential has been for graduates of the University of Northern Iowa compared to their non-CPA peers.

For most, the pursuit of an accounting education is not a product of an intense love for debits and credits; instead, the pursuit of a bachelor's or master's degree in accounting as well as the CPA credential stems from the belief that these accomplishments will allow an individual to experience a greater level of life satisfaction. Accounting students at the University of Northern Iowa are not interested in sinking thousands of dollars and countless hours into the pursuit of these goals if they are not going to see a return on their investment. Like most of the population, these students hope their future is filled with great opportunity, a loving and caring social network, and endless amounts of memories and experiences that they will be able to cherish. In

this study, the aim was to demonstrate whether the CPA can be a catalyst for greater psychological, subjective, and objective well-being. According to countless studies, higher levels of life satisfaction are associated with better overall physical health and fewer long-term health conditions (Siahpush et al., 2008; Maddox & Eisdorfer, 1962). Further research also finds substantial relationships between life satisfaction and physical activity and socio-economic status (Soddy, 1967; Palmore & Luikart, 1972). Thus, the evidence is clear that life satisfaction impacts some of the core drivers of human happiness and fulfillment. As a student of accounting, I am confident that the CPA can provide its recipients with greater levels of income, job security, health, social relationships, respect, self-esteem, status, and sense of accomplishment. Consequently, these factors will drive individuals to experience higher levels of subjective well-being.

II.   Literature Review

Before developing a model to evaluate the relationship between the CPA credential and life satisfaction, existing research that has attempted to explain the variables that influence measures of life satisfaction were explored. The current research concerning college education and professional credentials and their impact on life satisfaction is extensive but not well understood. Surprisingly, there are an increasing number of studies that assert there is an insignificant or even negative relationship between higher education and subjective measures of well-being. A study in the *Journal of Happiness Study* by Boris Nikolaev (2018) examined that those with higher education view their lives as being more meaningful, experience more positive emotions, and are satisfied in many domains of life (financial, job security, etc.). Nikolaev also found that subjective well-being gains were much lower for graduate students when compared to obtaining

an undergraduate degree. While these are interesting results for those considering obtaining a Masters of Accountancy at the University of Northern Iowa, I was unable to test whether my survey data supported these results due to limited variability in the survey response for participants with a University of Northern Iowa Masters of Accountancy degree. Nearly every participant with a master's degree also obtained a CPA.

In regard to existing literature that focuses on the relationship between obtaining the CPA and subjective life satisfaction, the results were few and not applicable to the goals of the research. As a result, an assumption was made that the pursuit of the CPA is comparable to pursuing additional education; consequently, the focus of the literature review was on the relationship between additional education and life satisfaction. As mentioned previously, this relationship is not as straightforward as one may believe. Intuitively, one may think that obtaining a higher level of education would lead to greater fulfillment, favorable economic outcomes, and a more positive outlook on life, but the existing research does not necessarily support this intuition. Multiple researchers have documented an insignificant or strictly negative relationship between higher education and subjective well-being (Clark & Oswald, 1995; Shields et al., 2009; Powdthavee, 2010; Nikolaev, 2015). According to Clark and Oswald (1995), a common explanation for these perplexing results is that individuals who pursue higher education may hold themselves to a higher standard or have loftier goals for life and career which might reduce life satisfaction since higher aspirations may be more difficult to realize. Another possible explanation from sociologist and pioneer on the scientific study of happiness, Ruut Veenhoven (2010), found that it is possible that less happy people are more likely to pursue higher education. As a result, the conclusions drawn in many correlational studies on the relationship between the two variables are driven by this reality. Lastly, a more recent explanation from

Nikolaev and Rusakov (2016) suggests that individuals are often willing to sacrifice feelings of subjective well-being for greater opportunity and upward mobility in life.

As a basis for the research, the model was based largely on research published by Boris Nikolaev, a professor of entrepreneurship in the Hankamer School of Business at Baylor University. In his article "Does Higher Education Increase Hedonic and Eudaimonic Well-Being?" in the *Journal of Happiness Studies* (2016), Nikolaev employed the use of a multi-dimensional evaluation of subjective well-being. The three types of well-being identified by Nikolaev include evaluative (the most utilized measurement of an individual's subjective satisfaction that consists of a cognitive evaluation of one's life), hedonic (measure the balance of positive and negative emotions one experiences in daily life), and eudaimonic (measures feelings of self-worth, meaning, purpose, or accomplishment). In the realm of psychological research, hedonic and eudaimonic evaluations are reputable and important measures of subjective well-being. An article titled "On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being" by Richard Ryan and Edward Deci in the *Annual Review of Psychology* (2001) provides a useful and historical look at the development of the two distinct philosophies that encompass subjective well-being.

According to Ryan and Deci (2001), hedonic pleasure or happiness has a long history and is rooted in the teaching of a fourth-century B.C. philosopher named Aristippus who taught that the goal in life is to maximize the amount of pleasure one experiences. In psychological research, the modern predominant view on hedonic well-being "consists of subjective happiness and concerns the experience of pleasure versus displeasure broadly construed to include all judgments about good or bad elements of life. Happiness is thus not reducible to physical hedonism, for it can be derived from attainment of goals or valued outcomes" (Diener et al, 1998, p. 144).

As an alternative to hedonic well-being, eudaimonic also has ancient philosophic roots. For example, Aristotle considered hedonic happiness to be an uncivilized ideal. As an alternative, he taught the essence of eudaimonic well-being which posits that true happiness is found in the expression of virtue. As a result, eudaimonic well-being does not always align with subjective feelings of happiness. According to Ryan and Deci (2001), the debate between these two philosophical stances has been quite heated. Based on the evaluation of the literature, both theories on life satisfaction were incorporated into my model similar to Boris Nikolaev in his research on education and life satisfaction. Overall, there was minimal research regarding the impact of the CPA credential on any of the factors mentioned thus far. This presented a great opportunity for this research because it provides a better explanation of the benefits and negatives of pursuing the CPA.

Other topics explored in the survey of the existing literature included the relationship between higher education and income. The research in this area is largely conclusive on the fact that, on average, those who obtain higher levels of education earn a higher income. Data from the U.S. Bureau of Labor Statistics (Torpev, 2018) indicates that individuals who have earned a bachelor's degree earn about $400 more per week than individuals with no college education and about $300 more per week than people who have obtained an associate's degree. Furthermore, individuals who have earned a master's degree earn more than $200 more per week when compared to individuals who have only a bachelor's degree. Unemployment data from the site also shows that individuals who hold bachelor's and master's degrees have unemployment rates that lie at least 2% lower than their non-college educated counterparts. It seems reasonable to conjecture that the effects of a CPA would be similar to a graduate level degree since the skills

and knowledge required for the credential would be similar to graduate level work, and nearly all Masters of Accountancy graduates at the University of Northern Iowa obtain a CPA.

Tamborini, Kim, and Sakamoto (2015) approach the impact of higher education and earnings a little differently than most studies. In their research in the journal *Demography*, they evaluate the impact of higher education on lifetime earnings as opposed to yearly earnings. Overall, they found that their results confirm the persistent positive effects of higher education on earnings over different stages of the work career and over a lifetime. In addition to this evidence, there have been many other studies that have documented the earnings premium associated with higher education (Bhuler et al., 2014; Brand et al., 2010; Card, 1999).

In my research, I also found existing literature on the impact of higher education on individual health outcomes. The research is clear that, on average, those who obtain higher levels of education enjoy better health and longer lives. In fact, there is evidence that the gap in health outcomes between the more educated and the less educated is increasing (Goldman & Smith, 2011; Zajacova & Lawrence, 2018). Feinstein et al (2006) found considerable international evidence that education is strongly linked to health and to determinants of health such as health behaviors, risky contexts, and preventative service use. This existing research between education and determinants of life satisfaction (income, job security, and health) is valuable to my analysis because the attainment of the CPA may be able to influence an individual's subjective assessment of well-being.

III. Research Question

This research is testing whether there is a statistically significant difference between CPA and non-CPA attaining graduates of the University of Northern Iowa's accounting program in

terms of their overall life satisfaction scores. The measure of life satisfaction is based off the survey Dr. Boris Nikolaev utilized in his study titled "Does Higher Education Increase Hedonic and Eudaimonic Well-Being?" (2018).

Nikolaev (2018) found that additional education led to higher life satisfaction and psychological well-being amongst a broad base of people. For accounting graduates, it is hypothesized that alumni who have obtained their CPA credential will report higher levels of life satisfaction and psychological well-being than their non-CPA attaining counterparts.

IV.   Data and Methodology

Survey data were collected on 93 accounting graduates from the University of Northern Iowa. The survey was distributed via email to a random sample of 816 UNI accounting alumni for a response rate of 11.4%. Respondents to the survey included approximately 60% males and 40% females. Of the respondents, about one-third received a bachelor's degree and no CPA, 55% received a bachelor's degree and a CPA, just under 15% received a master's degree with a CPA, and only 1 respondent received a master's degree and no CPA. Below, in Table 1, there are some key descriptive statistics from the survey data.

Table 1 – Descriptive Statistics

Panel A

	Minimum	Maximum	Mean	Std. Deviation
Sat_Avg	5.75	10.00	8.5643	.99968
SWB_Comp	24.00	45.00	39.9383	4.58624
What is your age?	22	82	48.56	14.942
What is your current annual income?	$35,000	$1,200,000	$195,503.45	$256,973.876
How often do you exercise?	1	5	3.60	.918

How many hours a week do you spend on your hobbies?	0 (hours)	30 (hours)	7.60	6.372

Panel B

CPA	25 (No)	56 (Yes)
Married	17 (No)	64 (Yes)
Gender	49 (Male)	32 (Female)

The survey, which is included in the appendix to this paper, consisted of two main parts. The first portion of the survey collected demographic information about the participants such as their age, gender, marital status, income, health, exercise habits, and education amongst others. The second part collected data on the respondents' subjective levels of hedonic well-being, eudaimonic well-being, measures of overall life satisfaction, and personality traits. As mentioned previously, the scales utilized in the survey to measure a participant's evaluation of their subjective well-being were taken from Boris Nikolaev's study in the *Journal of Happiness Studies* (2018). Included below in Table 2, the relevant variables included in developing the model are identified and described.

<div align="center">

Table 2 – Variables and Measures

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	Variable	Facet(s) and Measurement
Dependent Variables	LIFESAT	An average of an alumni's overall evaluation of subjective life satisfaction scored using an 11-item question list and a 10-point scale from (1) not satisfied at all; to (10) completely satisfied.
	PSYCHWELL	A composite measure of the various aspects of psychological well-being that incorporated 3 separate lists of questions for a total of 16-items. Each item was scored on a 5-point

		scale from (1) all of the time; to (5) none of the time.
Independent Variables of Interest	CPA	Item of interest scored (0) if the respondent did not attain the CPA credential; or (1) if the respondent did attain the CPA credential.
Participant Characteristics & Potential Covariates		
	AGE	Respondent Manual Entry
	GENDER	Female (0); Male (1)
	INCOME	Respondent's Current Annual Income
	EXERCISE	Almost Never (1); Less than Weekly (2); Weekly (3); More Than 3 Times a Week (4); Daily (5)
	MARITALSTAT	Not Married (0); Married (1)
	HOBBIES	# of Hours
	HEALTH	Poor to Fair (0); Good, Very Good, or Excellent (1)

Once the data were collected, the results were analyzed to test if there was a statistically significant relationship between attaining the CPA credential and the various measures of life satisfaction. Furthermore, the existing literature and a preliminary correlation matrix suggests that health, age, and marital status correlate significantly with the dependent variables: life satisfaction and psychological well-being ($p < 0.05$). As a result, health, age, and marital status are included as control variables in the tests of the research question.

After running a regression to test if there was a direct, statistically significant relationship between the independent variable of interest, whether alumni have the CPA credential, and the dependent variable, an alumni's overall life satisfaction score, the results were inconclusive due

to the strong relationship between health and life satisfaction. Thus, the regression results showed that the only statistically significant independent variable on the overall measure of life satisfaction was a respondent's perceived health. Due to the powerful effect of health on life satisfaction, data was split between individuals indicating they were in good or poor health, and further analysis were only performed on individuals in good health. These respondents accounted for about 90% of the sample. We determined this adjustment was appropriate due to the pervasive and immense impact one's health has on their life satisfaction. In Table 3 below, the correlation matrix was created from the respondents who indicated they were in good health.

Table 3 – Correlation Matrix

	Pearson Correlations	
	Life Average Life Satisfaction	Psychological Well-Being Composite
Average Life Satisfaction	1	.418**
Psychological Well-Being	.418**	1
CPANo0CPAYes1	0.113	*.244**
What is your age?	*.249**	*.349***
What is your gender?	0.124	0.173
What is your current annual income?	0.081	0.026
How often do you exercise?	0.031	0.104
MarriedNo0Y1	*.271**	0.100
How many hours a week do you spend on your hobbies?	0.036	-0.044

* $p < .05$
** $p < .01$

The second regression that included only respondents who considered themselves to be of good health or better had results that aligned more closely to existing theories of life satisfaction. The two control variables, marriage and age, exhibited a statistically strong, positive relationship with life satisfaction, but the CPA variable did not have a statistically significant direct relationship with one's overall evaluation of life satisfaction. Although, there may not be a direct

relationship between these two variables, an indirect relationship may be at play. According to the research, further education and a professional credential should have an influence on an individual's life satisfaction. Based on the literature, discussed above, it is reasonable to conjecture that the relationship may be mediated through improvements in an individual's subjective measurements of psychological well-being as measured by the hedonic and eudaimonic scales of well-being. To test this, a mediation test was conducted to measure the mediating effect of psychological well-being on the relationship between obtaining a CPA and life satisfaction. The mediating effect was tested using multiple regressions and following the steps outlined in Baron and Kenny (1986). A mediator is a variable through which an independent variable influences the mediator, the mediator influences the dependent variable, and when the path from the independent variable to the mediator and the mediator to the dependent variable are controlled, the effect of the independent variable on the dependent variable is insignificant (or significantly reduced). Mediation is "best done in the case of a strong relation between the predictor and the criterion variable" (Baron & Kenny, 1986, p. 1173). In the tests of mediation performed here, the independent variable was regressed on the mediator, the dependent variable was regressed on the independent and the mediating variable. When the effect of the independent variable in the third equation was less than the second, mediation occurred. The tests of mediation were confirmed by Sobel tests.

V.   Results and Interpretation

To test how psychological well-being mediates the relationship between obtaining a CPA and life satisfaction, I first regressed life satisfaction on CPA (P1 in figure 1). This path was insignificant (p = 0.781) with an unstandardized regression coefficient of .069 and standard error

of .247. Next, psychological well-being was regressed on the CPA (P2 in figure 1). This path

was significant (p = 0.048) with an unstandardized regression coefficient of 2.123 and a standard

error of 1.054. Life satisfaction was then regressed on psychological well-being. The path

between psychological well-being and life satisfaction (P3 in figure 1) was significant (p =

0.001) with an unstandardized beta coefficient of .083 and a standard error of .024. Finally, life

satisfaction was regressed on CPA with psychological well-being included in the model. The

final path between life satisfaction and CPA with psychological well-being included as well (P1'

in figure 1) was insignificant (p = 0.659) and had an unstandardized regression coefficient that

fell to -0.105 with a standard error of 0.236. The reduction in the unstandardized regression

coefficient indicates partial mediation. This was confirmed by a Sobel test (Sobel test statistic; 1-

Tail = 0.0408; 2-Tail = 0.0818). The result suggests that obtaining a CPA influences

psychological well-being, which in turn influences life satisfaction.

Figure 1 – Mediation Test with Unstandardized Residuals and p-Values
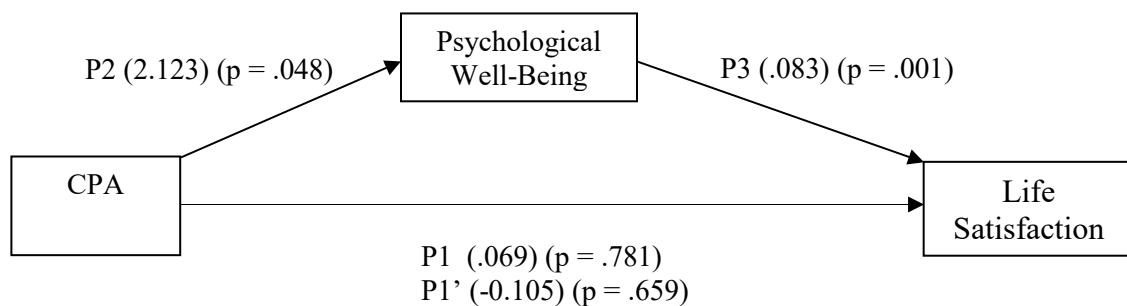
The various regression results are presented below in Tables 4-7.

Table 4 – Life Satisfaction Regressed on CPA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.357[b]	0.127	0.091	0.97410

a. HealthDicot = 1.00
b. Predictors: (Constant), MarriedNo0Y1, What is your age?, CPANo0CPAYes1

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.978	3	3.326	3.505	.020[c]
	Residual	68.318	72	0.949		
	Total	78.297	75			

a. HealthDicot = 1.00
b. Dependent Variable: Sat_Avg
c. Predictors: (Constant), MarriedNo0Y1, What is your age?, CPANo0CPAYes1

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.324	0.428		17.096	0.000
	CPANo0CPAYes1	0.069	0.247	0.032	0.279	0.781
	What is your age?	0.015	0.008	0.221	1.991	0.050
	MarriedNo0Y1	0.615	0.284	0.247	2.163	0.034

Table 5 – Psychological Well-Being Regressed on CPA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410[b]	0.168	0.146	4.28768

a. HealthDicot = 1.00
b. Predictors: (Constant), What is your age?, CPANo0CPAYes1

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	271.743	2	135.872	7.391	.001^c
	Residual	1342.046	73	18.384		
	Total	1613.789	75			

a. HealthDicot = 1.00
b. Dependent Variable: SWB_Comp
c. Predictors: (Constant), What is your age?, CPANo0CPAYes1

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.648	1.755		19.169	0.000
	CPANo0CPAYes1	2.123	1.054	0.216	2.015	0.048
	What is your age?	0.100	0.033	0.325	3.024	0.003

Table 6 – Life Satisfaction Regressed on Psychological Well-Being

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500^b	0.250	0.218	0.90332

a. HealthDicot = 1.00
b. Predictors: (Constant), MarriedNo0Y1, What is your age?, SWB_Comp

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.545	3	6.515	7.984	.000^c
	Residual	58.751	72	0.816		
	Total	78.297	75			

a. HealthDicot = 1.00
b. Dependent Variable: Sat_Avg
c. Predictors: (Constant), MarriedNo0Y1, What is your age?, SWB_Comp

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.524	0.909		4.975	0.000
	SWB_Comp	0.083	0.024	0.376	3.437	0.001
	What is your age?	0.007	0.007	0.096	0.878	0.383
	MarriedNo0Y1	0.554	0.257	0.222	2.159	0.034

Table 7 - Life Satisfaction regressed on CPA with Psychological Well-Being

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.502[b]	0.252	0.210	0.90840

a. HealthDicot = 1.00

b. Predictors: (Constant), MarriedNo0Y1, What is your age?, CPANo0CPAYes1, SWB_Comp

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.708	4	4.927	5.971	.000[c]
	Residual	58.589	71	0.825		
	Total	78.297	75			

a. HealthDicot = 1.00

b. Dependent Variable: Sat_Avg

c. Predictors: (Constant), MarriedNo0Y1, What is your age?, CPANo0CPAYes1, SWB_Comp

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.476	0.921		4.861	0.000
	CPANo0CPAYes1	-0.105	0.236	-0.048	-0.444	0.659
	SWB_Comp	0.085	0.025	0.387	3.434	0.001
	What is your age?	0.007	0.007	0.096	0.879	0.383
	MarriedNo0Y1	0.581	0.265	0.234	2.191	0.032

The adjusted R-squared for these tests ranged from 0.127 to 0.252, meaning that the model explains about 12% to 25% of the variance in alumni's life satisfaction measurements. For sociological research, a R-squared value around 10% or above is considered respectable. Accordingly, the model measures up relatively well in this regard. The F-statistic was statistically significant in each model. These results signify that the independent variables included in the model had significant effects on the dependent variable. By looking at these numbers, the robustness of the test can be verified.

Based on the model, the attainment of the CPA does not prove to have a direct influence on an individual's evaluation of life satisfaction. Factors such as one's marital status, age, subjective psychological well-being, and, most importantly, health are shown to be the most important for UNI's accounting alumni when it comes to their perceived fulfillment in life. Rationally, this makes sense because the sole achievement of passing the CPA (while a tremendous accomplishment) should have a minimal lasting impact on an individual's perceived quality of life. However, the positive impacts of the CPA can influence the true drivers of life satisfaction.

The CPA is shown to be a significant influencer of one's overall psychological well-being. Aspects of psychological well-being include feelings of self-worth, motivation, outlook on life, and positive and negative emotions. Thus, it can be inferred that accounting graduates at the University of Northern Iowa who go on to obtain their CPA have more opportunities to pursue careers and lifestyles that positively impact measures of psychological well-being. Moreover, these gains in psychological well-being play a statistically significant role in improving one's overall life satisfaction. In summary, the results are encouraging for current and future accounting students at the University of Northern Iowa. The accounting department has proven to be a leader in accounting education for decades, and the superior education has led to a nationally ranked pass rate on the CPA exam. Based on the research conducted in this study, these CPA-earning graduates experience higher levels of psychological well-being in comparison to their non-CPA peers. Furthermore, psychological well-being is shown to have a statically significant positive relationship with measures of life satisfaction.

VI.   Conclusion

This study used multiple statistical regression of survey data to investigate the impact of the CPA credential's impact on University of Northern Iowa accounting graduate's subjective evaluation of life satisfaction. It finds that the CPA credential has a positive, statistically significant relationship with psychological well-being. Moreover, our mediation model indicates that the positive impact of the CPA on psychological well-being has a positive, indirect impact on overall life satisfaction. For the most part, these findings are consistent with the existing research and expectations of the researchers.

This study does have notable limitations. First, there is sampling risk associated with the respondents of the survey. There are thousands of graduates that have come through the University of Northern Iowa's accounting program; thus, there is an inherent risk that the voluntary responders of the survey may not be a representative sample of the entire population. To address this, I examined the difference between early (those that responded within 5 days) and late responders (those that responded after a follow-up email on day 5), finding no significant differences on demographic factors including age, gender, employment, income, education, and professional licensing (all $P > 0.05$). I didn't find a significant difference between early and late responses to psychological well-being or life satisfaction ($P > 0.05$). Additionally, of the respondents of the survey, we based our findings on individual's who considered themselves in good health. This reduced our sample size to a lower amount, and we are not entirely certain that this was the proper way to incorporate this control variable into our model.

Another limitation in the study is the measurements used to assess psychological well-being and life satisfaction. The scales we used were adapted from existing research. Since the researchers involved in this study are not experts in happiness or subjective well-being, the judgment in this area is not completely reliable. It is quite possible that the scales employed to evaluate one's life satisfaction were biased towards either the CPA or non-CPA group. Additionally, the mediation model and the assumptions that were incorporated into the study's model are far from perfect. Based on the existing research and theory, we tried our best to include the control variables that are most important and influential in predicting an individual's perceived quality of life. However, as was pointed out previously, our model's R-squared values hovered around .200. This means there are a multitude of other factors outside of the CPA that can explain an individual's life satisfaction. Unfortunately, this is an inherent limitation in nearly

all studies regarding subjective measurements of one's life satisfaction and is not a major issue in this research. The goal of this research was not to explain what brings people satisfaction; instead, the research aims to determine whether the CPA plays a role.

In terms of future research that could be conducted in this area and ways to address the limitations of this study, there are a few recommendations contained below. First and foremost, more control variables and a revised survey tool would be helpful in creating a more robust model. Flaws and critiques of the survey arose after data was collected; thus, future research on these topics could benefit from the lessons the researchers learned throughout the process. Additionally, the survey results lacked variability in the respondents who received a master's of accountancy and the CPA at the University of Northern Iowa. In order to correct for this in future studies, researchers could collect larger samples to capture more of the variability of this group of alumni, or the study could be expanded to other universities. This would be especially interesting, not only for the sake of evaluating the effectiveness of graduate programs in accounting, but differences between accounting alumni from different programs may arise. Ultimately, the research contained within this paper and future research in this area serves the purpose of providing current and future accounting students with more information and greater context surrounding the benefits of pursuing a degree in accounting and the CPA credential.

References

Baron, R. & Kenny, D. 1986. The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. https://psycnet.apa.org/doi/10.1037/0022-3514.51.6.1173

Bhuller, M, Mogstad, M, & Salvanes, K. 2014. Life Cycle Earnings, Education Premiums, and Internal Rates of Return. *National Bureau of Economic Research.* DOI 10.3386/w20250

Brand, J. & Xie, Y. 2010. Who Benefits Most from College? Evidence for Negative Selection in Heterogeneous Economic Returns to Higher Education. *American Sociological Review*, *75*(2), 273-302. doi:10.1177/0003122410363567

Card, D. 1999. The Casual Effect of Education on Earnings. *Handbook of Labor Economics*, *3*, 1801- 1863. https://doi.org/10.1016/S1573-4463(99)03011-4

Clark, A. & Oswald, A. 1995. Satisfaction and Comparison Income. *Journal of Public Economics, 61,* 359-381. https://doi.org/10.1016/0047-2727(95)01564-7

Davis, C., Lindquist, T., & Ugrin, J. 2021. Truman State takes top spot among college accounting programs. https://www.accountingtoday.com/opinion/2021-cpa-success-index-expanded-rankings-of-the-nations-521-largest-collegiate-accounting-programs. (Accessed March 30, 2022).

Deiner, E., Sapyta, J., & Suh, E. 1998. Subjective Well-Being is Essential to Well-Being. *Psychological Inquiry, 9*(1), 33-37. https://psycnet.apa.org/doi/10.1207/s15327965pli0901_3

Feinstein, L., Sabates, R., Anderson, T., Sorhaindo, A., & Hammond, C. 2006. What are the Effects of Education on Health. In Measuring the Effects of Education on Health and Civic Engagement: Proceedings of the Copenhagen Symposium (pp. 171-354).

Goldman, D. & Smith, J. 2011. The Increasing Value of Education to Health. *Social Science and Medicine, 72*(10), 1728-1737. https://doi.org/10.1016/j.socscimed.2011.02.047

Maddox, G. & Eisdorfer, C. 1962. Some Correlates of Activity and Morale Among the Elderly. *Social Forces*, *40*(3), 254-260. https://doi/10.2307/2573638

Nikolaev, B. 2018. Does Higher Education Increase Hedonic and Eudaimonic Happiness? *Journal of Happiness Studies, 19*, 483–504. https://doi.org/10.1007/s10902-016-9833-y

Nikolaev, B. 2015. Living with Mom and Dad and Loving It… Or Are You? *Journal of Economic Psychology, 51*, 199-209. https://doi.org/10.1016/j.joep.2015.08.009

Nikolaev, B. & Rusakov, P. 2016. Education and Happiness: An Alternative Hypothesis. *Applied Economics Letters, 23*(12), 827-830. https://doi.org/10.1080/13504851.2015.1111982

Palmore, E. & Luikart, C. 1972. Health and Social Factors Related to Life Satisfaction. *Journal of Health and Social Behavior, 13*(1), 68-80. https://doi.org/10.2307/2136974

Powdthavee, N. 2010. How Much Does Money Really Matter? Estimating the Causal Effects of Income on Happiness. *Empirical Economics, 39*(1), 77-92. https://doi.org/10.1007/s00181-009-0295-5

Ryan, R. & Deci, E. 2001. On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology, 52*, 141-166. https://doi.org/10.1146/annurev.psych.52.1.141

Shields, M., Price, S., & Wooden, M. 2009. Life Satisfaction and the Economic and Social Characteristics of Neighborhoods. *Journal of Population Economics, 22*(2), 421-443. https://doi.org/10.1007/s00148-007-0146-7

Siahpush, M., Spittal, M., & Singh, G. 2008. Happiness and Life Satisfaction Prospectively Predict Self-Rated Health, Physical Health, and the Presence of Limiting, Long-Term

Health Conditions. *American Journal of Health Promotion, 23*,18-26.
https://doi.org/10.4278/ajhp.061023137

Soddy, K. 1967. Satisfaction in Middle Age. *Royal Society of Health Journal*. *87*(6), 305-209.
https://doi.org/10.1177%2F146642406708700610

Tamborini, C., Kim, C., & Sakamoto, A. 2015. Education and Lifetime Earnings in the United
States. *Demography, 52*(4), 1383-1407. https://dx.doi.org/10.1007%2Fs13524-015-0407-
0

Torpey, E. Measuring the Value of Education. https://www.bls.gov/careeroutlook/2018/data-on-
display/education-pays.htm. (Accessed March 15, 2022)

University of Northern Iowa. Accounting. https://business.uni.edu/accounting. (Accessed April
1, 2022)

Veenhoven, R. 2010. Capability and Happiness: Conceptual Difference and Reality Links. *The
Journal of Socio-Economics, 39*(3), 344-350. https://doi.org/10.1016/j.socec.2009.11.007

Zajacova, A., & Lawrence, E. 2018. The Relationship Between Education and Health:
Reducing Disparities Through a Contextual Approach. *Annual Review of Public Health*,
39, 273–289. https://doi.org/10.1146/annurev-publhealth-031816-044628

Appendix

<u>**Survey Questions**</u>

Life Satisfaction: 10 Point Scale or N/A
1) All things considered, how satisfied are you with your life?
2) All things considered, how satisfied are you with your employment opportunities?
3) All things considered, how satisfied are you with your financial satisfaction?
4) All things considered, how satisfied are you with your amount of free time?
5) All things considered, how satisfied are you with the home in which you live?
6) All things considered, how satisfied are you with feeling like you are part of your local community?
7) All things considered, how satisfied are you with the neighborhood you live in?
8) All things considered, how satisfied are you with how safe you feel?
9) All things considered, how satisfied are you with your relationship with children?
10) All things considered, how satisfied are you with your partner?
11) All things considered, how satisfied are you with your children in the household getting along with each other?

Eudaimonic SWB: 5 Point Scale

Answers: 1 'all of the time', 2 'most of the time', 3 'some of the time', 4 'a little of the time', and 5 'none of the time'.

The following questions are about your feelings in the past 4 weeks. In the last 4 weeks, about how often did you feel…
1) Worthless?
2) Tired for no good reason?
3) Everything was an effort?
4) Hopeless?

Hedonic SWB: 5 Point Scale

Answers: 1 'all of the time', 2 'most of the time', 3 'some of the time', 4 'a little of the time', and 5 'none of the time'.

The following questions are about your feelings in the past 4 weeks. In the last 4 weeks, about how often did you feel…
1) Sad?
2) Restless or fidgety?
3) Nervous?
4) Unable to sit still?
5) Unable to calm down?

Positive and Negative Affect: 6 Point Scale

Answers: 1 'all of the time', 2 'most of the time', 3 'at least half of the time', 4 'some of the time', 5 'a little of the time', and 6 'none of the time'.

These questions are about how you feel and how things have been with you during the past 4 weeks. For each questions, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks have you…
1) Been a happy person?
2) Felt calm and peaceful?
3) Been a nervous person?
4) Felt like nothing could cheer you up?
5) Felt down?
6) Felt worn out?
7) Felt tired?

Education:
1) Please choose the option that represents your degree and credentials upon graduation from the University of Northern Iowa.

Answers: Bachelor's Degree with no CPA, Bachelor's Degree with CPA, Master's Degree with CPA, Master's Degree with no CPA

2) What type of Master's Degree?

Answer: MAcc, MBA, Other

3) Where did you obtain your Bachelor's Degree?
4) Where did you obtain your Master's Degree?
5) Please list any other degrees outside of the degrees we have already asked about?
6) What was your undergraduate GPA?

Answer: 3.5 – 4.0, 3.0 – 3.5, 2.5 – 3.0, Less 2.5

Control Variables:
1) What is your age?
2) What is your gender?
3) What is your marital status? (Married, Single, Widowed, Divorced, Separated)
4) What is your employment status?
5) What is your current annual income?
6) What was your average annual income for the past 3 years?
7) How is your health? (Poor, Fair, Good, Very Good, Excellent)
8) How often do you exercise? (Almost Never, Less than Weekly, Weekly, More than 3 Times a Week, Daily)
9) What state or country do you live in?
10) What year did you graduate from the University of Northern Iowa?
11) How many children do you have?
12) How many years have you worked in public accounting?

13) How many hours a week do you spend on your hobbies?

Personality Traits:

Answers: 1 'Disagree Strongly', 2 'Disagree a Little', 3 'Neither Agree nor Disagree', 4 'Agree a Little', 5 'Agree Strongly'

How well do the following statements describe your personality? I see myself as someone who…

1) Is reserved?
2) Is generally trusting?
3) Tends to be lazy?
4) Is relaxed, handles stress well?
5) Has few artistic interests?
6) Is outgoing, sociable?
7) Tends to find fault with others?
8) Does a thorough job?
9) Gets nervous easily?
10) Has an active imagination?

Complete Correlation Matrix

		Average Life Satisfaction	Psychological Well-Being Composite
Average Life Satisfaction	Pearson Correlation	1	.418**
	Sig. (2-tailed)		0.000
	N	80	80
Psychological Well-Being Composite	Pearson Correlation	.418**	1
	Sig. (2-tailed)	0.000	
	N	80	80
CPANo0CPAYes1	Pearson Correlation	0.113	.244*
	Sig. (2-tailed)	0.316	0.029
	N	80	80
What is your age?	Pearson Correlation	.249*	.349**
	Sig. (2-tailed)	0.030	0.002
	N	76	76
What is your gender?	Pearson Correlation	0.124	0.173
	Sig. (2-tailed)	0.275	0.125
	N	80	80
What is your current annual income?	Pearson Correlation	0.081	0.026
	Sig. (2-tailed)	0.683	0.894
	N	28	28
How often do you exercise?	Pearson Correlation	0.031	0.104

	Sig. (2-tailed)	0.788	0.357
	N	80	80
MarriedNo0Y1	Pearson Correlation	.271*	0.100
	Sig. (2-tailed)	0.015	0.380
	N	80	80
How many hours a week do you spend on your hobbies?	Pearson Correlation	0.036	-0.044
	Sig. (2-tailed)	0.760	0.714
	N	73	73