

**AN EXAMINATION OF GENDER DIFFERENCES  
IN ACCOUNTING STUDENTS' VALUES  
AT TWO POINTS IN TIME**

**Lynn Bible**  
Fayetteville State University

**Hani Tadros**  
Elon University

Key Words: Accounting Students' Values, Change in Moral Values, Gender Differences in Moral Values, Moral Values, Schwartz Value Survey

JEL Classification(s): M00, M40, M41, M49

**Abstract**

Gender differences in values have a significant impact on the accounting profession with female accountants exhibiting more diligence, higher levels of accuracy for more complex judgments, and less acceptance of unethical behavior (O'Donnell and Johnson, 2001; Chung and Moore, 2001; Pierce and Sweeney, 2010). This study examines gender differences in accounting students' values to gain an understanding of the differences that exist in future accountants. The study examines gender differences in value types and higher order values – as defined by the Schwartz (1992) survey –and the change in these values between 2004 and 2010. The findings of this research suggest that accounting students tend to embrace a desirable set of values – conservatism and self-transcendence – necessary for the development of the accounting profession. This

is mainly due to significant increase in conservation values adopted by female students such as conformity, tradition, and security between 2004 and 2010. Contrary to male accounting students who choose openness to change as their most preferred set of values, female accounting students continuously rank self-transcendence as their most important one. The outcome of this study raises the question of whether the set of values adopted by female students make them more prepared for a career in accounting.

## **INTRODUCTION**

The demand for accounting graduates continues to grow. According to the 2016 – 2017 edition of the Bureau of Labor Statistics Occupational Outlook Handbook the accounting profession should see an 11 percent faster than average increase in jobs from 2014 to 2024. At the same time CPA firms believe that finding and retaining qualified staff are among the top five issues facing accounting firms (AICPA, 2013). While it is true that firms still have difficulty retaining women accountants, more women reach the partner level today than 20 years ago, 19% and 12% in 2012 and 1993 respectively (Doucet and Hooks, 1999).

Research shows that men and women hold different values and make different choices when faced with the same decision. Many studies also find that values and ethical behavior can change over time (see Akers and Giacomino, 2000; Clikeman and Henning, 2000; Earley and Kelly, 2004) with education or experience. Giacomino and Akers (1998) explain that “to provide meaningful guidance regarding values, educators and administrators, in addition to having an understanding of values, should have an awareness of social influences and the importance of values in business. Society can influence the students’ values prior to and during college, while businesses can influence

employees' values throughout their professional careers" (p. 566). The question arises whether today's accounting students have adjusted or changed their values. Personal values play an important part in everyday life as they impact our behavior and how we make decisions. Given this importance, there has been extensive research on how values affect decisions, especially business decisions. In light of the number of accounting misconducts that have occurred over the last couple of decades, this focus on values as it relates to decision making is important.

The purpose of this paper is to examine gender differences and changes within gender for value types and higher-order values of accounting majors using the Schwartz (1992) Value Survey. The Schwartz (1992) Value Survey is one of the most widely used instruments for measuring personal values (Bible and Tadros, 2014; Boer and Fisher, 2013; Myyry, 2008; Lindeman and Verkasalo, 2005; Schwartz and Sagiv, 1995). While there have been numerous studies using the Survey, an understanding of the changes in values change over time, especially as it relates to gender, is still not clear.

This study extends prior research on gender differences in personal values to examine whether these differences exist between male and female accounting students. The results of this research provide evidence that there are significant differences between male and female accounting majors. It suggests that female accounting students are more likely to embrace self-transcendence and conservation values; two sets of values that are necessary for the advancement of the accounting profession (Kung and Huang, 2013; Lan et al., 2013)

The next section of this paper will review relevant research on the gender and value differences, and changing values. Research methodology is the subject of the third section, and section four presents the results of the survey. The final section will discuss the results, limitations of the survey, and suggestions for future research.

## LITERATURE REVIEW

### Women in the Profession

Women have made tremendous strides in the accounting profession. As early as 1986 more than 50 percent of accountants were women (Almer, 2007). However, as women move up in their careers, the percentages of female accountants in high ranking positions decline. According to the 2013 Catalyst Census: Fortune 500 Executive Officers and Top Earners report only 14.6 percent of executive officers were women (Catalyst, 2013). This percentage was a little higher for CPA firms. The AICPA 2013 Trends in Supply and Demand reported that overall 19 percent of partners were women. However firm size plays a role in the percentage of women at each level. In large CPA firms, those with annual revenues over \$25 million, women account for at least 48 percent of positions at the manager level or lower in comparison to only 41 percent in regards to the senior manager level. The decline was even greater for full equity owners/partners at 21% (AICPA, 2010). For small firms, those with \$1 to \$5 million in annual revenue, the percentages were higher for women until they reach the partner level. Fifty-five percent of women were associates and 62 percent were supervisors/seniors. The percentage increased slightly to 63 percent for managers, but like larger firms, the percentages decrease for senior managers, to 58 percent. However, only 25 percent of women reach the level of full equity owners/partners (AICPA, 2010).

There is no doubt that women positively contribute to the profession and are just as ambitious as men. The McKinsey Global Survey (McKinsey & Company, 2014) stated that “seventy-nine percent of all midlevel or senior-level women say they have the desire to reach a top-management position over the course of their careers” and at the senior executive level “women are more likely than men to strongly agree that they have top-management

ambitions”. When examining job attribute preferences for men and women, Rao et al. (2014) found that while women still rated “female” job attributes higher than men they also rated attributes traditionally viewed as “masculine” as more important than men. This may indicate that women are adopting more male oriented attributes that may help them advance in the profession. However, women are still leaving the profession before they reach their goals. The 2013 Accounting MOVE Project Report (Wilson-Taylor Associates, Inc., 2013) indicated that 69 percent of women believe that work/life issues are a problem for advancement in the profession while 30 percent believed there is a perceived bias against women’s leadership that prevent women from advancing.

### **Gender and Values Differences**

Research on gender-based differences has produced controversial results. Many early studies provide no evidence of differences in values or ethical judgment between males and females (see McNichols and Zimmerer, 1985; McCuddy and Peery, 1996; Stanga and Turpen, 1991; Tsalikis and Ortiz-Buonafina, 1990; Jones and Kavanagh, 1996; and Hoffman, 1998). However, recent research suggests that men and women are more likely to adopt conflicting sets of values and ethical behavior. Research has found that firms with female audit partners recorded fewer abnormal accruals than firms with male audit partners. In addition, both the income-increasing and income-decreasing accruals were less for female audit partners (Ittonen et al., 2013). This indicates that female audit partners may be more effective in restricting earnings management.

Both O’Donnell and Johnson (2001) and Chung and Moore (2001) found opposite results when they investigated gender-based effects for the accuracy of high complexity and low complexity inventory judgments. Chung and Moore (2001) found that female auditors were more accurate than male auditors in high complexity judgments and male auditors were more accurate than female auditors in low complexity judgments while O’Donnell and

Johnson (2001) found no difference in accuracy between male and female auditors for either the high complexity or low complexity judgments. O'Donnell and Johnson (2001) found that female auditors spent less time on high complexity judgments while male auditors spent less time on low complexity judgments.

In an exploratory study of Nordic corporations, Ittonen and Peni (2012) found that public accounting firms with female audit engagement partners charged a higher audit fee than firms with male audit engagement partners. Ittonen and Peni (2012) suggest that one possible conclusion is due to "female auditors' diligence and higher level of preparation."

Research also shows that women are more likely to hold to their ethical values and are less accepting of unethical behavior than men. Pierce and Sweeney (2010) studied auditors' ethical intentions, judgments, and pressure. They found that female auditors were less likely to participate in unethical behavior and felt less pressured to participate in unethical behavior than male auditors. Female auditors also judged behavior to be unethical more often than male auditors. Roxas and Stoneback (2004) found that female accountants were less likely to accept or engage in unethical behavior than their male counterparts.

Nguyen et al. (2008) used the social role theory to explain these gender differences in ethical judgment. They claimed that woman's role in society shape their attributes to become more socially oriented while men were assessed based on their aggressiveness in seeking success which promoted a different set of attributes such as self-reliance. When presented with different business scenarios, women are more inclined to view the situation as unethical in comparison to men. Similar results were found by Lund (2008).

Individualistic values that promote personal success are found more often in men while women embrace values that represent social welfare. However, a recent study by Rao et al. (2014) found that women accounting majors are embracing

attributes that are typically designated as masculine job attributes while at the same time holding onto feminine job attributes.

In an attempt to understand the importance of values, research has looked at the impact of values in different settings. In the work place, Lan et al. (2013) used the Schwartz Value Survey to examine the relation between Chinese accounting practitioners' values and their work orientation. Employees may view their work as *Jobs* (a way to acquire material benefits), *Careers* (a means to acquire power and climb social rankings), or *Callings* (an appreciative view to the value of work in one's life). The authors found that values associated with self-enhancement (in this case hedonism and achievement) were associated with employees who view their work as *Career*. In contrast, self-transcendence values (benevolence) were associated with employees viewing their work as *Callings*.

Personal values have been shown to indirectly influence ethical beliefs. While Kung and Huang (2013) did not find that values predicted ethical beliefs, they did find that the personal values of auditors working in the Big 4 auditing firms in Taiwan were indirectly related to ethical beliefs. Kung and Huang (2013) linked moral philosophy, idealism and relativism, with Schwartz's higher-order values. They found that auditors with more conservative values tend to be idealistic. In other words, auditors who place high importance on values associated with the higher-order conservation are more likely to have a stronger sense of morality and less likely to condone clients' unethical behavior. In contrast, auditors who place greater importance on self-enhancement values tend to be relativistic. These auditors are not as sensitive to clients' unethical behavior.

Schwartz and Rubel-Lifschitz (2009) studied higher-order values across 25 countries. They found that women placed more importance on self-transcendence values (i.e. benevolence) while men held self-enhancement values (i.e. power) as more important. Cultures can also impact values. In those cultures that promote

gender equality, the value differences decrease due to women adopting more self-enhancement values.

Other studies find gender differences in human values. Nistor and Ilut (2011) showed that females have significantly more self-transcendence values than males. Lan et al. (2013) found that males rated achievement values significantly higher than females. Bible and Tadros (2014) also found that female business majors embraced Self-Transcendence and Conservation values, while male business majors tended to embrace Openness to Change and Self-Enhancement.

In summary, research indicates that there are significant gender differences that impact the behavior of female and male accountants in the workplace. However, there is no indication of when those differences developed. The objective of this study is to examine whether gender differences in higher order values exist between female and male accounting students during their professional education. Based upon the results of prior research on gender differences and using Schwartz's (1992) definition of values and value types (Schwartz and Sagiv, 1995), we form the following hypothesis:

H1: There is a difference in the importance of higher-order values and value types between male and female accounting majors.

### **Value Change**

Do values change over time? And if there is a change, what are the determinants of this change? These are questions that remain largely unanswered. Rokeach (1973) believed that personal experiences can have an impact on values at both the individual and socialite level. An individual may experience an event (such as a mugging) that would change his individual values, while society may experience an event (such as war) that would change the entire society's values.

Bible and Tadros (2014) used the Schwartz (1992) value survey to study American university business students in 2004 and

2010. They found that students in the 2010 survey increased the level of importance for 41 individual values. More interesting is the change in higher-order values. Business majors in 2010 increased the importance of the higher order values Openness to Change and Conversation compared to 2004 business majors; however, the higher order values of Openness to Change and Conservation were reversed between the years with Conservation becoming more important in 2010. One could speculate that an increase in media awareness about negative events such as financial scandals, wars, or the decline in the economy might have shifted the importance of the values promoting conservation to a higher ranking in comparison to Openness to Change.

Bardi et al. (2009) conducted a longitudinal study to examine value change over time. They contend that due to the conflicting natures of individualistic and collective values, humans might allocate different weights to these values prior to making choices. Therefore, situational changes may cause these weights to change over time. Bardi et al. (2009) used a sample of German high school students to measure the change in their values using the Schwartz (1992) value model across two different points in time; the start of a school year and the end of a school year. They discovered that students experienced an increase of self-enhancement values (power and achievement) and a decrease in self-transcendence values (universalism and benevolence) over time. Similar results were also found with British college students. There was an increase in the power value type and a decrease in benevolence value type. An additional study with adult subjects of varying ages (range 18 – 67) could not provide evidence of value change for the general population; the authors only found a positive change in hedonism values over time. Bardi et al. (2009) speculated that life-changing events have a stronger impact on changes in values than age.

Exposure to ethical misconduct may also have an impact on ethical attitude. Conroy and Emerson (2006) examined the responses of American universities students before and after the

Enron/Arthur Andersen scandal for two situations creating ethical breaches: “insider trading” and “reporting tricks”.<sup>1</sup> Results suggest that students are less accepting to these ethical situations following the scandal. They also found that attending church or taking an ethics course was positively associated with students' disapproval of insider trading and accounting tricks. The authors highlight the role of the media following the scandal in creating awareness about these ethical situations which may have contributed to the positive change in attitudes. Emerson and Conroy (2004) studied university students between 1985 and 2001 to determine if there was a change in ethical attitudes to 15 ethically questionable situations. Students were less acceptable to ethical situations that cause moral dilemma in the 2001 sample in comparison to the 1985 sample.

Wu (2003) examined the impact of education on student values, ethical recognition, ethical decision-making, and ethical tendencies. The study used business students from two universities across the Taiwan Strait. Results suggested that students' values such as “dedication and respect”, open-mindedness and originality”, and “coziness and fellowship” improved after students were taught business ethics. Students were better able to recognize ethical situations, and there was a positive change in their behaviors concerning ethical decision-making. The study provides evidence that education in business ethics improves student abilities to recognize ethical values and to act according to these values.

Clikeman and Henning (2000) conducted a study of four separate situations to test whether accounting and non-accounting business students in their sophomore year of college had significantly different responses than students in their senior year of college. One of the situations was an earnings management scenario of postponing regularly scheduled maintenance to

---

<sup>1</sup> Some research in utilitarian ethics view the results of insider trading as a positive-sum game and therefore ethical. Refer the work of Henry Manne.

maximize current earnings. Clikeman and Henning (2000) determined that “no differences were detected between sophomore students planning to major in accounting and sophomores planning to major in other business disciplines. By their senior year, however, the accounting students in the study were less willing than students in other business disciplines to increase reported income by delaying discretionary maintenance.”

The second hypothesis is based on previous research that suggests values change over time.

H2: There is a change in the importance of higher-order values and value types for male and female accounting majors from 2004 to 2010.

## **METHODOLOGY**

### **The Schwartz (1992) Value Survey**

In 1992 Schwartz studied human values across 20 different cultures. He identified 56 values that are universal across cultures. Using samples of undergraduate university students and school teachers, Schwartz (1992) found that human values result from ten motivational needs (also called motivational types or value types): self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism. The outcome of the study provided a two-dimensional model that classifies values according to their value types and explains the compatibilities and tensions between these values. Value types that promote individualism include self-direction, stimulation, hedonism, achievement and power. Value types that promote collectivism include benevolence, tradition, and conformity. There are two value types that promote both individualism and collectivism; universalism and security. The presence of compatibilities between value types within each category and conflicts between value types across the two categories confirm that humans – to a certain extent – are guided by either individualistic or collective interests.

Within this same study, Schwartz (1992) presented a more basic view of his model based on the conflict between the value types. Value types can be rearranged to form four high-order value types drawn along two bipolar dimensions. The first dimension represents the opposition between *openness to change* (a combination of stimulation and self-direction) versus *conservation* (security, conformity, and tradition). This measures the extent to which individuals embrace an environment endorsing the fulfillment of personal emotional and intellectual interests or an environment promoting the certainty provided by the status quo. The second dimension is the opposition between *self-enhancement* (power, achievement, and hedonism) versus *self-transcendence* (universalism and benevolence). This dimension represents the conflict between individuals' desire to pursue their self-interests in contrast to their willingness to forego their selfish demands in return for others' welfare.

### **Test Instrument and Subjects**

The Schwartz Value Survey (1992) was administered by one of the authors to upper division accounting majors in 2004 and 2010. The Schwartz Value Survey has 56 values which are grouped into 10 value types and 4 higher-order values (see Appendix I). For each value, the student was asked to rate the importance of the value as a guiding principle in his or her life, on a scale of -1 to 7. A "-1" response means the value is opposed to the respondent's values, a "0" means the value is of no importance, and a "7" means the value is of supreme importance. Scores between "0" and "7" reflect degrees of importance becoming more important as the number increases.

In 2004, 67 accounting majors completed the survey. Five surveys were incomplete and therefore eliminated from the study, leaving 62 surveys for 2004 sample. There were 37 females and 25 males in sample with an average age of 27.6 years old. In 2010, 81 accounting majors completed the survey. Three surveys were incomplete and were eliminated, leaving 78 surveys for the 2010

sample. There were 45 females and 33 males in the sample with an average age of 25 years old. Both samples were from state universities. The sample from 2004 was from a state university in the western United States with an average enrollment of 14,000. The sample from 2010 was from a state university in the southern United States with an average enrollment of 11,000. Participation in the survey was voluntary and students were asked to complete the questionnaire during class time.

The mean for each individual value was first calculated. The individual value means were then grouped into the 10 value types developed by Schwartz and Sagiv (1995). These 10 value types were further grouped into the 4 higher-order values developed by Schwartz (1992). An analysis of variance, ANOVA, was performed to determine if significant differences existed between the years for each value, value type, and higher-order values. Rokeach (1973) suggests changes in the mean-level of values may result from an event experienced by all of society.

## **RESULTS**

### **H1: Difference in values between female and male accounting students**

Differences in values between female and male accounting students were examined for the 2004 and 2010 samples. In general, the results provide support for H1 and suggest that there are value differences between male and female accounting students. Table-1 and Table-2 show gender differences for the 2004 sample. There is a significant gender difference in higher order values. Female students embrace self-transcendence values more than male students (mean of 4.88 for female students in comparison to 4.43 for male students). This difference is mainly due to a significant difference in universalism value types between female and male students (mean of 4.59 for female students in comparison to 3.90 for male students). The results do not confirm any gender

differences for the higher order values of self-enhancement, openness to change, or conservation.

**Table-1:** Higher-Order Values: Gender Differences between Accounting Students for 2004 Sample

	Female		Male		Sig.
	Rank	Mean	Rank	Mean	
Conservation	3	4.29	3	4.20	0.745
Openness to Change	2	4.54	1	4.66	0.644
Self-Enhancement	4	3.88	4	4.10	0.474
Self-Transcendence	1	4.88	2	4.43	0.065

**Table-2:** Value Types: Gender Differences between Accounting Students for 2004 Sample

	Female		Male		Sig.
	Rank	Mean	Rank	Mean	
Achievement	3	4.96	5	4.63	0.251
Benevolence	2	5.17	2	4.97	0.421
Conformity	7	4.55	6	4.43	0.726
Hedonism	1	5.26	1	5.02	0.451
Power	10	2.83	9	3.60	0.075
Security	5	4.79	4	4.70	0.743
Self-Direction	4	4.95	3	4.90	0.870
Stimulation	8	4.14	7	4.41	0.435
Tradition	9	3.52	10	3.46	0.853
Universalism	6	4.59	8	3.90	0.021

The analysis of the 2010 sample also shows that there is a significant difference between female and male accounting students concerning the self-transcendence values (mean of 5.25 for female students in comparison to 4.82 for male students) which is also due to differences in universalism value types (mean of 4.81 for female students in comparison to 4.35 for male students) - refer to Tables 3 and 4. Although there are no significant gender differences in the higher order value conservation, female students embrace tradition value types more than male students (mean of 4.58 for female students in comparison to 3.98 for male students).

**Table-3:** Higher-Order Values: Gender Differences between Accounting Students for 2010 Sample

	Female		Male		Sig.
	Rank	Mean	Rank	Mean	
Conservation	2	5.09	3	4.81	0.194
Openness to Change	3	4.83	1	4.86	0.879
Self-Enhancement	4	4.54	4	4.62	0.698
Self-Transcendence	1	5.25	2	4.82	0.041

**Table-4:** Value Types: Gender Differences between Accounting Students for 2010 Sample

	Female		Male		Sig.
	Rank	Mean	Rank	Mean	
Achievement	2	5.56	1	5.48	0.659
Benevolence	1	5.68	3	5.30	0.089
Conformity	3	5.52	4	5.29	0.314
Hedonism	6	5.12	2	5.47	0.253
Power	10	3.51	10	3.77	0.445
Security	5	5.17	6	5.16	0.981

Self-Direction	4	5.39	4	5.29	0.583
Stimulation	9	4.26	7	4.43	0.569
Tradition	8	4.58	9	3.98	0.040
Universalism	7	4.81	8	4.35	0.057

## **H2: Change in male and female accounting students' values between 2004 and 2010**

An examination of the change in values over time for male and female accounting students is performed by conducting an analysis of variance (ANOVA) between the group means of higher-values and value types for the 2004 and 2010 samples. The results in Table 5 and Table 6 provide support for (H2) and show that there is a significant change for both male and female accounting students' values between 2004 and 2010.

There is a significant increase in the higher order values of self-transcendence (from 4.70 in 2004 to 5.07 in 2010), self-enhancement (from 3.97 to 4.57), and conservation (from 4.25 to 4.97). The results do not provide evidence of a significant increase for the higher order value of openness to change. According to Table-6, the increase in self-transcendence is due to a significant change in benevolence value types (from 5.09 to 5.52). Furthermore, the change in self-enhancement is caused by the significant change in achievement (from 4.83 to 5.53) and power (from 3.11 to 3.62) value types. Furthermore, the increase in conservation is caused by the significant increases in conformity (from 4.50 to 5.42), tradition (from 3.50 to 4.33), and security (from 4.76 to 5.17) value types. Table-5 shows that on average the 2004 sample of accounting students rank the higher order value openness to change higher than conservation. That order is reversed for the 2010 sample. Further analysis – not reported - shows that the change in conservation is due to a significant increase in the individual values such as politeness, obedient, honoring parents, self-discipline (conformity values), national

security, reciprocation of favors (security values), humble, and devout (tradition values).

**Table-5:** Change in Higher-Order Values of Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Conservation	3	4.25	2	4.97	0.000
Openness to Change	2	4.59	3	4.84	0.132
Self-Enhancement	4	3.97	4	4.57	0.001
Self-Transcendence	1	4.70	1	5.07	0.021

**Table-6:** Change in Value Types of Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Achievement	4	4.83	1	5.53	0.000
Benevolence	2	5.09	2	5.52	0.011
Conformity	6	4.50	3	5.42	0.000
Hedonism	1	5.16	5	5.27	0.618
Power	10	3.11	10	3.62	0.062
Security	5	4.76	6	5.17	0.018
Self-Direction	3	4.93	4	5.35	0.007
Stimulation	8	4.25	8	4.33	0.708
Tradition	9	3.50	8	4.33	0.000
Universalism	7	4.31	7	4.61	0.111

We conduct further analysis on the change in values for the female and male samples separately. Table-7 and Table-8 show a change in female values over time (support for H2). The results in Table-7 show a significant increase in the higher order values of self-transcendence (from 4.88 to 5.25), self-enhancement (from 3.88 to 4.54), and conservation (from 4.29 to 5.09). Table-8 shows that the increase in self-transcendence for female students is caused by an increase in benevolence value types (from 5.17 to 5.68). Furthermore, the increase in self-enhancement is caused by a significant change in achievement (from 4.96 to 5.56) and a large change in power (from 2.8 to 3.51) value types. Finally, the increase in the higher order value of conservation is caused by a significant change in conformity (from 4.55 to 5.52), security (from 4.80 to 5.17) and tradition (from 3.52 to 4.58) value types. Table-7 also shows that female accounting students in the 2004 sample rank the higher order value of openness to change higher than conservation. This order is reversed in the 2010 sample due to the significant increase in conservation. Further analysis of female conservation values – not reported - provide evidence that the change in these values is due to a significant increase in individual values such as politeness, obedient, honoring parents, self-discipline (conformity values), national security (security value), humble, and devout (tradition values).

**Table-7:** Change in Higher-Values for Female Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Conservation	3	4.29	2	5.09	0.000
Openness to Change	2	4.54	3	4.83	0.177
Self-Enhancement	4	3.88	4	4.54	0.004
Self-Transcendence	1	4.88	1	5.25	0.070

**Table-8:** Change in Value Types for Female Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Achievement	3	4.96	2	5.56	0.003
Benevolence	2	5.17	1	5.68	0.013
Conformity	7	4.55	3	5.52	0.000
Hedonism	1	5.26	6	5.12	0.578
Power	10	2.80	10	3.51	0.033
Security	5	4.80	5	5.17	0.095
Self-Direction	4	4.95	4	5.39	0.018
Stimulation	8	4.14	9	4.26	0.666
Tradition	9	3.52	8	4.58	0.001
Universalism	6	4.59	7	4.81	0.352

Unlike female accounting students, male accounting students only witnessed significant change in the higher order value of conservation (from 4.2 to 4.81) which is mainly due to a significant change in conformity value types (from 4.43 to 5.29) – refer to Tables 9 and 10. While there is no significant change in the higher order value of self-enhancement, we still find a significant change in achievement value types. Unlike female students, male students continue to rank the higher order value openness to change higher than conservation in both 2004 and 2010 samples. Further analysis – not reported - shows that the change in male conservation values is mainly due to a significant

increase in individual values such as politeness, self-discipline (conformity values), and humble (tradition value).

**Table-9:** Change in Higher-Order Values for Male Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Conservation	3	4.20	3	4.81	0.029
Openness to Change	1	4.66	1	4.86	0.469
Self-Enhancement	4	4.10	4	4.62	0.101
Self-Transcendence	2	4.43	2	4.82	0.115

**Table-10:** Change in Value Types for Male Accounting Students between 2004 and 2010

	2004		2010		Sig.
	Rank	Mean	Rank	Mean	
Achievement	5	4.63	1	5.48	0.004
Benevolence	2	4.97	3	5.30	0.252
Conformity	6	4.43	4	5.29	0.013
Hedonism	1	5.02	2	5.47	0.260
Power	9	3.57	10	3.77	0.667
Security	4	4.70	6	5.16	0.096
Self-Direction	3	4.90	4	5.29	0.160
Stimulation	7	4.41	7	4.43	0.959
Tradition	10	3.46	9	3.98	0.135
Universalism	8	3.90	8	4.35	0.136

## DISCUSSION

The purpose of this study is to examine differences in values between male and female accounting students to understand

the prospective impact of gender differences on the accounting profession. Kung and Huang (2013) emphasized the importance of conservation values to the profession, and found that auditors with higher conservation values were more idealistic and tended to adopt higher moral values which make them disprove unethical business practices. In contrast, auditors promoting self-enhancement values would tend to accept these practices. Furthermore, Lan et al. (2013) found that accounting practitioners with self-transcendence values tended to derive more satisfaction from their jobs, in comparison to practitioners with self-enhancement values who found their jobs as means of acquiring power or status. In brief, prior research suggests that – although values are important - the elevation of some values among accounting professionals may be destructive to the profession since they promote self-interest rather than collectivism. In this study, we attempt to understand the main values endorsed by male and female accounting students which provides an outlook about the future of the accounting profession.

The findings of this research suggest that in 2004, accounting students ranked self-transcendence values as the most important set of values followed by openness to change, conservation, and self-enhancement values (see higher-order value means in Table-5). In 2010, accounting students ranked self-transcendence values first, followed by conservation, openness to change, and self-enhancement values (see higher-order value means in Table-5). These findings along with the results from Table-5 suggest that there is a positive change in values among accounting students that could potentially benefit the accounting profession. The change in values between 2004 and 2010 – presented in Table-5 – shows that although there is a significant increase in self-enhancement values, there is also a significant increase in self-transcendence and conservation values.

These changes are mainly due to changes in female accounting students' values who witnessed a significant increase in self-transcendence, self-enhancement, and conservation values

(see Table-7). Table-7 also shows that female students – over 2004 and 2010 - ranked the most important values as self-transcendence, conservation, openness to change, and self-enhancement respectively. In comparison, male accounting students only witnessed a positive change in conservation values over the same period of time (see Table-9). In contrast, Table-9 shows that male accounting students ranked self-transcendence values as the most important set of values, followed by openness to change, conservation, and self-enhancement values. The comparison between female and male accounting students over the years (Tables 1 and 3) show that female accounting students embrace self-transcendence values more than male accounting students. Meanwhile, we could not find significant gender differences between the other sets of higher-order values.

In brief, the study shows that accounting majors are adopting desirable sets of values – self-transcendence and conservation – over the years. The study also shows that female accounting students are more open to embrace self-transcendence and conservation values in comparison to their male counterparts. This is similar to the findings of Rao et al. (2003) who found that female accounting students were adopting more masculine job attributes over time.

#### **LIMITATIONS AND CONCLUSION**

The samples drawn from two different states is a limitation of this study due to differences in underlying values across states. However, an advantage of using the Schwartz Value Survey (1992) is that the values in the survey are recognized across cultures. The political climate of the two states at the time the surveys were administered was also examined. By examining the presidential elections' results of the two states - from the National Archives and Records Administration website (<https://www.archives.gov/federal-register/electoral-college/index.html>) - we find that the western state voted for the Republican candidate in 2000 and 2004 and the southern state also

voted for the Republican candidate in 2008 and 2010. These findings suggest that, around the time when the two samples were drawn, both states were exhibiting similar conservative values.

The results of this study open more research questions about the advancement of values in the accounting profession. For one thing, it would be intriguing to know whether these changes in values among accounting students are mirrored by similar changes among accounting professionals. Furthermore, it would be interesting to know about the impact of gender differences on the accounting profession and whether female accounting professionals continue to embrace the same values, endorsed by female accounting students, in the workplace.

## APPENDIX I

### Survey of Values

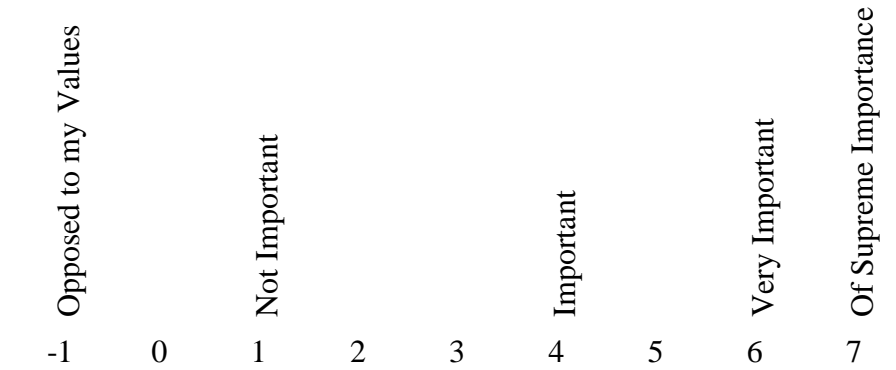
Year of Birth: \_\_\_\_\_

Sex: Male: \_\_\_\_\_ Female: \_\_\_\_\_

Major: \_\_\_\_\_

In the space before each value, write the number (-1,0,1,2,3,4,5,6,7) that indicates the importance of that value for YOU, personally. *Try to distinguish as much as possible between the values by using all the numbers.* You will, of course, need to use numbers more than once.

AS A GUIDING PRINCIPLE IN MY LIFE, this value is:



Before you begin, read the values listed below. Choose the one that is most important to you and rate its importance. Next, choose the value that is most opposed to your values and rate it -1. If there is no such value, choose the value least important to you and rate it 0 or 1. Then rate the rest of the values.

1. \_\_\_\_\_ EQUALITY (equal opportunity for all)
2. \_\_\_\_\_ INNER HARMONY (at peace with myself)

3. \_\_\_\_\_ SOCIAL POWER (control over others, dominance)
4. \_\_\_\_\_ PLEASURE (gratification of desires)
5. \_\_\_\_\_ FREEDOM (freedom of action and thought)
6. \_\_\_\_\_ A SPIRITUAL LIFE (emphasis on spiritual not material matters)
7. \_\_\_\_\_ SENSE OF BELONGING (feeling that others care about me)
8. \_\_\_\_\_ SOCIAL ORDER (stability of society)
9. \_\_\_\_\_ AN EXCITING LIFE (stimulating experiences)
10. \_\_\_\_\_ MEANING IN LIFE (a purpose in life)
11. \_\_\_\_\_ POLITENESS (courtesy, good manners)
12. \_\_\_\_\_ WEALTH (material possessions, money)
13. \_\_\_\_\_ NATIONAL SECURITY (protection of my nation from enemies)
14. \_\_\_\_\_ SELF-RESPECT (belief in one's own worth)
15. \_\_\_\_\_ RECIPROCATION OF FAVORS (avoidance of indebtedness)
16. \_\_\_\_\_ CREATIVITY (uniqueness, imagination)
17. \_\_\_\_\_ A WORLD AT PEACE (free of war and conflict)
18. \_\_\_\_\_ RESPECT FOR TRADITION (preservation of time-honored customs)
19. \_\_\_\_\_ MATURE LOVE (deep emotional and spiritual intimacy)
20. \_\_\_\_\_ SELF-DISCIPLINE (self-restraint, resistance to temptation)
21. \_\_\_\_\_ DETACHMENT (from worldly concerns)
22. \_\_\_\_\_ FAMILY SECURITY (safety for loved ones)
23. \_\_\_\_\_ SOCIAL RECOGNITION (respect, approval by others)
24. \_\_\_\_\_ UNITY WITH NATURE (fitting into nature)
25. \_\_\_\_\_ A VARIED LIFE (filled with challenge, novelty and change)
26. \_\_\_\_\_ WISDOM (a mature understanding of life)
27. \_\_\_\_\_ AUTHORITY (the right to lead or command)

28. \_\_\_\_\_ TRUE FRIENDSHIP (close, supportive friends)
29. \_\_\_\_\_ A WORLD OF BEAUTY (beauty of nature and the arts)
30. \_\_\_\_\_ SOCIAL JUSTICE (correcting injustice, care for the weak)
31. \_\_\_\_\_ INDEPENDENT (self-reliance, self-sufficient)
32. \_\_\_\_\_ MODERATE (avoiding extremes of feeling and action)
33. \_\_\_\_\_ LOYAL (faithful to my friends, group)
34. \_\_\_\_\_ AMBITIOUS (hard-working, aspiring)
35. \_\_\_\_\_ BROADMINDED (tolerant of different ideas and beliefs)
36. \_\_\_\_\_ HUMBLE (modest, self-effacing)
37. \_\_\_\_\_ DARING (seeking adventure, risk)
38. \_\_\_\_\_ PROTECTING THE ENVIRONMENT (preserving nature)
39. \_\_\_\_\_ INFLUENTIAL (having an impact on people and events)
40. \_\_\_\_\_ HONORING OF PARENTS AND ELDERS (showing respect)
41. \_\_\_\_\_ CHOOSING OWN GOALS (selecting own purposes)
42. \_\_\_\_\_ HEALTHY (not being sick physically or mentally)
43. \_\_\_\_\_ CAPABLE (competent, effective, efficient)
44. \_\_\_\_\_ ACCEPTING MY PORTION IN LIFE (submitting to life's circumstances)
45. \_\_\_\_\_ HONEST (genuine, sincere)
46. \_\_\_\_\_ PRESERVING MY PUBLIC IMAGE (protecting my "face")
47. \_\_\_\_\_ OBEDIENT (dutiful, meeting obligations)
48. \_\_\_\_\_ INTELLIGENT (logical, thinking)
49. \_\_\_\_\_ HELPFUL (working for the welfare of others)
50. \_\_\_\_\_ ENJOYING LIFE (enjoying food, sex, leisure, etc.)

51. \_\_\_\_\_ DEVOUT (holding to religious faith and belief)
52. \_\_\_\_\_ RESPONSIBLE (dependable, reliable)
53. \_\_\_\_\_ CURIOUS (interested in everything, exploring)
54. \_\_\_\_\_ FORGIVING (willing to pardon others)
55. \_\_\_\_\_ SUCCESSFUL (achieving goals)
56. \_\_\_\_\_ CLEAN (neat, tidy)

### **Value Types**

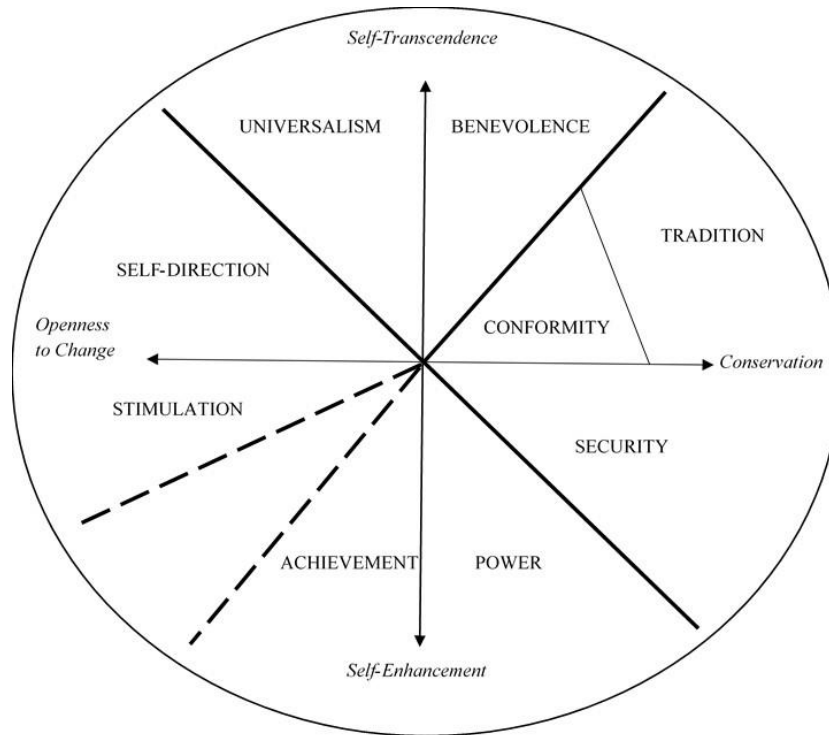
**(Schwartz and Sagiv 1995)**

#### **Values for Each Type Shown in Parentheses**

- Achievement: Personal success through demonstrating competence according to social standards. (Successful, Capable, Ambitious, Influential)
- Benevolence: Presentation and enhancement of the welfare of people with whom one is in frequent personal contact (Helpful, Honest, Forgiving, Loyal, Responsible)
- Conformity: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms. (Politeness, Obedient, Self-Discipline, Honoring Parents and Elders)
- Hedonism: Pleasure and sensuous gratification for oneself. (Pleasure, Enjoying Life)
- Power: Social status and prestige, control or dominance over people and resources. (Social Power, Authority, Wealth)
- Security: Safety, harmony and stability of society, of relationships, and of self. (Family Security, National Security, Social Order, Clean, Reciprocation of Favors)
- Self-Direction: Independent thought and action-choosing, creating, exploring. (Creativity, Freedom,

	Independent, Curious, Choosing Own Goals).
Stimulation:	Excitement, novelty and challenge of life. (Daring, a Varied Life, an Exciting Life)
Tradition:	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion impose of the self. (Humble, Accepting My Part in Life, Devout, Respect for Tradition, Moderate)
Universal:	Understanding, appreciation, tolerance and protection for the welfare of all people and for nature. (Broadminded, Wisdom, Social Justice, Equality, A World at Peace, A World of Beauty, Unity with Nature, Protecting the Environment)

**Theoretical Model of Relations between Higher-Order Values and Value Types Schwartz (1992)**



## REFERENCES

- Akers, M. D. and Giacomino, D. E. (2000). Ethics and the accountants' code of conduct. *Journal of Applied Business Research*, 16 (3), 87-95.
- Almer, E. D. (2007). AICPA Work/Life and women's initiatives 2004 Research a decade of changes in the accounting profession: Workforce trends and human capital practices. *Issues in Accounting Education*, 22 (1), 59-66.
- American Institute of Certified Public Accountants (AICPA) (2013). The PCPS CPA Firm 2013 Top Issues Diagnostic Report. Retrieved from <http://www.aicpa.org/InterestAreas/PrivateCompaniesPracticeSection/StrategyPlanning/FirmStrategyandPlanning/DownloadableDocuments/2013-Top-Issues-commentary.pdf>
- American Institute of Certified Public Accountants (AICPA) (2013). 2013 Trends in the supply of accounting graduates and the demand for public accounting recruits. Retrieved from <http://www.aicpa.org/career/womenintheprofession/downloadabledocuments/trends-report.pdf>
- American Institute of Certified Public Accountants (AICPA) (2010). WIEC 2010 Benchmarking survey. Retrieved from <http://www.aicpa.org/career/womenintheprofession/downloadabledocuments/wiecsurveyresults.pdf>
- Baker, C. (1976). An investigation of differences in values: Accounting majors vs. nonaccounting majors. *The Accounting Review*. 51 (4), 886-893.
- Bardi, A, Lee, J. A., Hofmann-Towfigh, N., and Soutar, G. (2009). The structure of intraindividual value change. *Journal of Personality and Social Psychology*, 97 (5), 913-929.
- Bible, L. and Tadros, H. (2014). Do values change over time? An exploratory study of business majors. *Journal of Legal, Ethical and Regulatory Issues*, 17 (1), 97-120.

- Boer, D. and Fischer, R. (2013). How and when do personal values guide our attitudes and sociality? Explaining cross-cultural variability in attitude-value linkages. *American Psychological Association*, 139 (5), 1113-1147.
- Beu, D. S., Buckley, M. R., and Harvey, M. G. (2003) Ethic decision-making: A multi-dimensional construct. *Business Ethics: A European Journal*, 12 (1), 88-107.
- Catalyst (2013). 2013 Catalyst Census: Fortune 500 Executive Officers and Top Earners. Retrieved from [http://www.catalyst.org/system/files/2013\\_catalyst\\_census\\_for\\_tune\\_500\\_women\\_executive\\_officers\\_top\\_earners.pdf](http://www.catalyst.org/system/files/2013_catalyst_census_for_tune_500_women_executive_officers_top_earners.pdf)
- Chung, J. and Monroe, G. (2001). A research note on the effects of gender and task complexity on an audit judgment. *Behavioral Research in Accounting*, 13, 111-125.
- Clikeman, P. M., and Henning, S. L. (2000). The socialization of undergraduate accounting students. *Issues in Accounting Education*, 15 (1), 1-17.
- Conroy, S. and Emerson, T. (2006). Changing ethical attitudes: The case of the Enron and ImClone scandals. *Social Science Quarterly*, 87 (2), 395-410.
- Doucet, M. S. and Hooks, K. L. (1999). Toward an equal future. *Journal of Accountancy*, June, 71-76.
- Earley, C. and Kelly, P. (2004). A note on ethics educational interventions in an undergraduate auditing course: Is there an "Enron effect"? *Issues in Accounting Education*, 19 (1), 53-71.
- Emerson, T. and Conroy, S. (2004). Have ethical attitudes changed? An intertemporal comparison of the ethical perceptions of college students in 1985 and 2001. *Journal of Business Ethics*, 50 (2), 167-176.
- Giacomino, D. E. and Akers, M. E. (1998). An examination of differences between personal values and value types of female and male accounting and nonaccounting majors. *Issues in Accounting Education*, 13 (3), 565-584.

- Hoffman, J. (1998). Are women really more ethical than men? Maybe it depends on the situation. *Journal of Managerial Issues*, 10 (1), 60-73.
- Ittonen, K. and Peni, E. (2012). Auditor's gender and audit fees. *International Journal of Auditing*, 16, 1-18.
- Ittonen, K, Vähämaa, E., and Vähämaa, S. (2013). Female Auditors and Accruals Quality, *Accounting Horizons*, 27 (2), 205-228.
- Jones, G. E. and Kavanagh, M. J. (1996). An experimental examination of the effects of individual and situational factors on unethical behavioral intentions in the workplace. *Journal of Business Ethics*, 15 (5), 511-523.
- Karacaer, S., Gohar, R., Aygün, M., and Sayin, C. (2009). Effects of personal values on auditor's ethical decision: A comparison of Pakistani and Turkish professional auditors. *Journal of Business Ethics*. 88 (1), 53-64.
- Kung, F. and Huang, C. (2013). Auditors moral philosophies and ethical beliefs. *Management Decision*. 51 (3), 479-500.
- Lan, G., Gowing, M., McMahan, S., Rieger, F., and King, N. (2008). A study of the relationship between personal values and moral reasoning of undergraduate business students. *Journal of Business Ethics*, 78 (1/2), 121-139.
- Lan, G., Okechuku, C., Zhang, H., and Cao, J. (2013). Impact of job satisfaction and personal values on the work orientation of Chinese accounting practitioners. *Journal of Business Ethics*, 112 (4), 627-640.
- Lindeman, M. and Verkasalo, M. (2005). Measuring values with the short Schwartz's value survey. *Journal of Personality Assessment*, 85 (2), 170-178.
- Lund, D. B. (2008). Gender differences in ethics judgment of marketing professionals in the United States. *Journal of Business Ethics*, 77 (4), 501-515.
- Mazei, J., Hüffmeier, J., Freund, P., Stuhlmacher, A., Bilke, L., and Hertel, G. (2015). A meta-analysis on gender differences

- in negotiation outcomes and their moderators, *Psychological Bulletin*, 141 (1), 85-104.
- McCuddy, M. K. and Peery, B. L. (1996). Selected individual differences and collegians' ethical beliefs. *Journal of Business Ethics*, 15 (3), 261-272.
- McKinsey & Company (2014). McKinsey global survey results: Moving mind-sets on gender diversity. Retrieved from [http://www.mckinsey.com/insights/organization/moving\\_mind-sets\\_on\\_gender\\_diversity\\_mckinsey\\_global\\_survey\\_results](http://www.mckinsey.com/insights/organization/moving_mind-sets_on_gender_diversity_mckinsey_global_survey_results)
- McNichols, C. W. and Zimmerer, T. W. (1985). Situational ethics: An empirical study of differentiators of student attitudes. *Journal of Business Ethics*, 4 (3), 175-180.
- Mujtaba, B. G. and Sims, R. L. (2011). Gender differences in managerial attitudes towards unearned privilege and favoritism in the retail sector. *Employee Responsibilities and Rights Journal*, 23 (3), 205-215.
- Myyry, L. (2008). The diversity of value meanings among university students. *Scandinavian Journal of Educational Research*, 52 (6), 549-564.
- Nistor, L. and Ilut, P. (2011). Self-transcendence values in Hungary and Romania. A preliminary analysis of benevolence and universalism. *Sociologie Romaneasca*, 9 (1), 25-46.
- Nguyen, N. T., Basuray, M. T., Smith, W. P., Kopka, D., and McCulloh, D. (2008). Moral issues and gender differences in ethical judgment using Reidenbach and Robin's (1990) multidimensional ethics scale: Implications in teaching of business ethics. *Journal of Business Ethics*, 77 (4), 417-430.
- O'Donnell, E. and Johnson, E. (2001). The effects of auditor gender and task complexity on information processing efficiency. *International Journal of Auditing*, 5 (2), 91-105.
- Pierce, B., and Sweeney, B. (2010). The relationship between demographic variables and ethical decision making of trainee accountants. *International Journal of Auditing*, 14 (1), 79-99.
- Rao, A., Higgins, L., and Baird, J. (2014). Traditional gender roles and job attribute preferences: A look at viewpoints of male

- and female accounting majors. *Academy of Business Research Journal*, 3, 47-63.
- Rokeach, M. (1973). *The Nature of Human Values*. New York, NY: Free Press.
- Roxas, M. and Stoneback, J. (2004). The importance of gender across cultures in ethical decision-making. *Journal of Business Ethics*, 50 (2), 149-165
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1-65.
- Schwartz, S. H. and Rubel-Lifschitz, T. (2009). Cross-national variation in the size of sex differences in values: Effects of gender equality. *Journal of Personality and Social Psychology*, 97 (1), 171-185.
- Schwartz, S. H. and Sagiv, L. (1995). Identifying culture-specifics in the content and structure of values. *Journal of Cross-Cultural Psychology*, 26 (1), 92-116.
- Stanga, K. G. and Turpen, R. A. (1991). Ethical judgments on selected accounting issues: An empirical study. *Journal of Business Ethics*, 10 (10), 739-747.
- Tsalikis, J. and Ortiz-Buonafina, M. (1990). Ethical beliefs' differences of males and females. *Journal of Business Ethics*, 9 (6), 509-517.
- United States Bureau of Labor Statistics (2017). 2016 – 2017 Occupational Outlook Handbook. Retrieved from <http://www.bls.gov/ooh/business-and-financial/accountants-and-auditors.htm>
- Wilson-Taylor Associates, Inc. (2013). 2013 Accounting MOVE project report: Engage or exit. Retrieved from [http://wilson-taylorassoc.com/wp-content/uploads/2012/MOVE\\_report\\_6\\_6.pdf](http://wilson-taylorassoc.com/wp-content/uploads/2012/MOVE_report_6_6.pdf)
- Wu, C. (2003). A study of the adjustment of ethical recognition and ethical decision-making of managers-to-be across the

Taiwan Strait before and after receiving a business ethics education. *Journal of Business Ethics*, 45 (4), 291-307