

**HOW VOLUNTEERISM,  
INTERNSHIPS AND ETHICS EDUCATION AFFECTS THE ETHICAL  
REASONING OF UNDERGRADUATE ACCOUNTING STUDENTS**

Barbara M. Porco  
Assistant Professor of Accounting and Taxation  
Fordham University  
Rose Hill Campus  
East 441 Fordham Road  
New York, NY 10458  
Phone: 718 817 4112  
e-mail: [barbaraporcophd@aol.com](mailto:barbaraporcophd@aol.com)

# **HOW VOLUNTEERISM, INTERNSHIPS AND ETHICS EDUCATION AFFECTS THE ETHICAL REASONING OF UNDERGRADUATE ACCOUNTING STUDENTS**

## **INTRODUCTION**

This study identified factors that influence the ethical development of undergraduate accounting students. By examining college students' demographic information, ethics education, internship experience, prosocial behavior exhibited through volunteerism, and Beta Alpha Psi Honor Society membership, the researcher gained insight into causes that shape the moral growth of future accountants. In response to the current crisis of ethics in the accounting profession, this study contributes to the existing body of literature pertaining to the effectiveness of ethics education and the impact of preprofessional employment on college students' moral cognition. Furthermore, this study provides a method of identifying accounting students with potentially advanced moral development through honor society membership and volunteerism.

For the past sixty years, the accounting profession's system of self-regulation has helped create the most respected financial markets in the world. Although publicized ethical lapses have occurred in the past, generally until recently, accountants have set the standards for ethical and moral behavior in business (Guy et al., 2003). Contemporary changes, with regard to the breadth of services currently offered by accounting firms coupled with changes in the ethical culture of accounting, have brought about a crisis of ethics in the profession. Although the profession's twenty-five-year old self-regulatory

framework has been continually enhanced and improved since its inception, it is now subject to unprecedented public scrutiny (Grumet, 2002). The stakes and risks associated with unethical conduct have never been greater than today (Mintz, 2002). It is not enough that accountants refuse to participate in false and misleading activities of their clients and employers; presently, accounting professionals are held accountable to prevent, detect, and report all manner of actual and potential improprieties (Mintz, 2002).

The profession “recognizes the need to be modernized while being dedicated to taking the necessary steps to restore public confidence in the capital market system” (Grumet, 2002, p. 9). The accounting industry’s reputation hit bottom with the demise of multibillion-dollar companies such as Enron, WorldCom and Andersen. Berkowitz’s (2002) description of the Enron incident can proxy to the general consensus pertaining to all the recent accounting debacles:

Some have called Enron a business failure... and it is. Some have called Enron a political failure... and it is. Some have called Enron an accounting failure... and it is. But more than any of these, it is an ethics failure. (p. 4)

In response to recent devastating accounting breakdowns and scandals, legislators and the public question the accounting profession’s ability to set and enforce its own regulations.

Professional standards-setting and the ethics enforcement processes are often characterized as moving at a snail’s pace, but the traditional standards-setting role is now in flux (Grumet, 2002). For example, the Sarbanes-Oxley Act of 2002 creates a new Public Company Accounting Oversight Board, as well as new rules governing public companies activities. The lawmaking events of the last year are summarized by Verschoor (2002):

The Sarbanes-Oxley Act of 2002, signed by President Bush on July 30, 2002, contained several ethics initiatives for public companies. On August 1, the New

York Stock Exchange (NYSE) issued a set of rules for listed companies. Among other changes, listed companies must henceforth adopt a code of business conduct and ethics - as well as appropriate compliance standards and procedures - to assure its effective operation. The NASDAQ's similar rule calls for board-approved procedures for monitoring compliance. The Sarbanes-Oxley Act calls for a code of conduct for senior financial officers only and disclosure of any change or waiver. Although not stated in so many words, the NYSE rules suggest that an organization's code of conduct should be based on *values* rather than just a legalistic prescription of forbidden acts. (p. 25)

Although the Sarbanes-Oxley Act and other measures of behavioral enforcement generally deal with public companies and their auditors, ethics are matters for the entire profession, including the members of academia (Hilzenrath & Day, 2002).

The new laws and rules are more stringent and explicit, but they address the results of the accounting fiascos, not the causes. The formal and informal standards of ethics and professional conduct are vital safeguards, unfortunately, external standards will have no significant bearing unless professionals “demonstrate the strong personal and professional conscience needed to drive an internal commitment to both do the right thing and do it right” (Mintz, 2002, p. xiii).

Prior studies (e.g., Bernardi and Arnold 1997; Bernardi 1994; Ponemon and Gabhart 1990) have focused on cognitive moral development impacting accountants' professional behavior, have found that auditors (accountants) with more principled<sup>1</sup> moral development are less likely to violate independence rules relative to auditors with less principled moral development. Furthermore, Ponemon (1990) found that auditors with more principled moral reasoning are more likely to disclose sensitive audit findings,

---

<sup>1</sup> Kolberg (1958, 1979) identifies three basic levels of moral development: *preconventional stage*, individuals at this level define the moral acceptability of alternate ways to resolve a moral dilemma by the rewards and punishments they attach to various outcomes. The *conventional stage*, individuals at this level resolve dilemma outcomes based on their interpretations of group norms. The *post-conventional* or *principled* stage (highest stage of CMD) is reached when individuals consider complex notions of universal fairness and an internal sense of responsibility and justice to resolve a moral dilemma (Bernardi et al. 2002).

even under conditions of retaliation by management, than auditors with less principled moral reasoning. Finally, Ponemon (1992) also concluded that auditors with less principled moral judgment are more likely to underreport time, under conditions of peer or time budget pressure, than auditors with more principled moral judgment, as was replicated with similar finding in a recent study by Bay and Greenberg (2001).

Given that advanced moral development is an essential characteristic of accounting professionals, the ability to better understand how prospective accountants reach higher levels of cognitive moral growth will play a key role in solving the accounting profession's ethics crisis (Allen & Chee, 2001). It may or may not be possible to alter the ethical/moral standards of current accounting professionals; however, it is critical to the profession that future accountants enter the industry with integrity, morals and a solid grasp of professional ethics.

## **LITERATURE REVIEW AND DEVELOPMENT OF RESEARCH QUESTIONS**

Current studies, based on the principles of cognitive-developmental psychology, provide insights into future accountants' ethical reasoning and judgment as well as the effects of ethics education, internship experiences, and moral/prosocial behaviors on accounting students. Given that advanced moral development is an essential characteristic of accounting professionals, the ability to better understand how prospective accountants reach higher levels of cognitive moral growth will play a key role in solving the accounting profession's ethics crisis. Applying the psychological theories of Kohlberg (1979) and Rest (1988), this study explores existing literature that investigates factors affecting the cognitive moral development of future accountants,

while advancing the discourse surrounding the underlying contributing factors of undergraduate accounting students' moral cognition.

### **College Education and Ethics Education**

During the last decade a number of business ethics researchers have turned to moral psychology theory, construct and measures, employing Rest's Defining Issues Test (DIT), to conduct social scientific research in the business ethics domain (Trevino, 1992, Loeb, 1988). Mary Beth Armstrong (1987), one of the first to use the Defining Issues Test on accountants, determined the strongest relationship of accounting students' moral growth, measured with DIT score<sup>2</sup>, is the student's level of education, rather than any other demographic variable.

Additionally, Jeffrey (1993) concluded seniors have *higher* moral development, measured with DIT scores, than lower division (juniors, sophomores, and freshman) students. The results of Jeffrey's study generally support the theory of ethical development posited by Kohlberg (1979) and Rest (1988): Moral development of all groups of students significantly *increases* with additional formal education. However not all studies have detected a significant relationship between general education demographics and moral reasoning (Shaub, 1994), after conducting over fifty studies, Rest (1988) concluded that formal undergraduate education, defined by a student's year in college, is a powerful and consistent correlate to cognitive moral growth.

Focusing on the impact of ethics education, Hildebeitel and Jones (1991) found that accounting students revise the manner in which they resolve professional ethical dilemmas after completing ethics modules, but this effect does not significantly extend to

---

<sup>2</sup> The CMD score used in the cited research is the P Score. The *P Score* is the sum of scores from Stages 5 and 6, converted to a percent. The P percent score can range from 0 to 95. It is interpreted as the extent to which a person (student) prefers postconventional moral thinking (Rest, et al., 1999, p. 18).

ethical dilemmas of a personal nature. In contrast, Armstrong (1993) studied the influence of a dedicated accounting ethics course to the ethical development of accounting majors using the Defining Issues Test (DIT). Her findings showed that accounting students who elected to take ethics courses had *higher* levels of moral development than those who were *not* exposed to ethics education.

In a similar study, Ponemon (1993) studied the influence of ethics interventions utilizing the DIT. Results of his study revealed that ethics interventions did not cause accounting students' level of ethical reasoning to develop (increase) and did not curtail immoral behavior thus contradicting Armstrong's conclusions. In studies where ethics education proved to have no significant relationship to moral growth, researchers primarily cited the following causes:

1. lack of focused and integrated ethics instruction (Ponemon, 1993; Hildebeitel and Jones, 1991);
2. accounting faculty are not properly trained to teach ethics courses (Ponemon, 1993.; Ponemon and Glazer, 1990; Armstrong and Mintz, 1989, Cohen and Pant, 1989);
3. accounting faculty are not supported by their university in attempts to include additional ethics instruction into existing accounting curricula (Armstrong and Mintz, 1989);
4. lack of coverage of ethics in accounting textbooks and curricula (Braken and Urbancic, 1999);
5. and, limitations of research studies which may produce untrustworthy results or conclusions (Bay and Greenberg, 2001).

Volumes of educational and psychological literature address the effectiveness of ethics education. In summary, empirical differences among accounting education studies conclude that only certain types of ethics interventions or programs will effect cognitive moral development (Rest and Narvaez, 1994; Bernardi, 1995; Bernardi et al., 2002).

This current study examined philosophical and business ethics courses, as well as the relationship between the year of a student's college study and his/her cognitive moral development, therefore enriching the existing body of literature pertaining to the effects of both general and ethics educations on undergraduate accounting students.

### **Public Accountancy Exposure**

Ponemon (1992) studied accountants at various position levels in public firms determining that ethical values encouraged by accounting firm management are inconsistent with higher levels of ethical reasoning. As a result, the ethical development of those entering and remaining in the accounting profession are stymied. Ponemon's (1992) study indicates that public accounting experience has an inverse relationship to the moral cognition of its firm members. Although the literature concentrates on the relationship between full-time employment and the organizational socialization process – the preparation of individuals for service as participants in business enterprises – the recent trends in longer and more extensive preprofessional experience raises new questions pertaining to the effect of internships on college students' moral growth.

The organizational socialization process entails mastery of critical skills required for effective performance, as well as the assumption of the attitudes that must accompany these activities (Fogarty, 2000). The organization plays a vital part in the new members' learning and adjustment, in this case accounting students (Fisher, 1986). Experienced organizational members selectively provide reinforcement, communicate the approved range for action, and serve as examples of achievement (Fogarty, 2000).

Accounting firms can attempt to build upon the values and expectations of accounting students, or to impress upon recruits the insufficiency and inadequacy of their



preparation. The latter choice amounts to the classic “up-ending experience” and presents an “unforgettable transition into entry-level positions” (Fogarty, 2000). Ziegenfuss (1999) found significant differences between the personal ethical philosophies of students and accounting practitioners. His findings imply that work experience influences students’ personal ethical philosophy more than the students’ collegiate experience. Furthermore, the effect of the student internship experiences is worthy of investigation, since very little is known about how large public accounting firms process their recruits (Bricker and Previts, 1990).

The researcher focused on public accounting exposure since more and more students are becoming immersed in lengthy internship experiences, “inferring extensive public accounting exposure ostensibly influences the moral development of undergraduate accounting students similarly as entry-level positions” (Hiltebeitel, et al., 2000). Results from this study contribute to the literature pertaining to college students’ preprofessional experience and its effect on cognitive moral development.

### **Prosocial Behavior**

Gorman and Duffy (1994) found that students with volunteer service experience showed a significantly higher level of cognitive moral growth than students who reflected on ethical issues only in a classroom setting. Murphy et al. (2002) studied the relationship between prosocial behavior and prosocial moral reasoning and found in adolescence, higher level moral reasoning were associated with higher levels of prosocial behavior. Although the findings of Gorman and Duffy (1994) are significant, the researchers were cautious with the effects of volunteerism on moral development. Since motives are internal states, it is often impossible to determine whether a given prosocial behavior is

altruistic or not. Moreover, the performance of non-altruistic prosocial behaviors may eventually lead to the development of altruistic tendencies (Eisenberg et al., 1995). Early researchers, such as Kohlberg (1979) and Rest (1979), have argued that moral reasoning influences individuals' moral decisions and social behavior. Hoffman (2000) suggested that advanced stages of moral cognitive development provides the motivational force to act in a prosocial manner, thus stimulating the development of internalized moral reasoning reflecting concern for others' welfare. Regardless of the motivations initiating prosocial behavior, positive results were demonstrated by Gorman and Duffy (1994); therefore this current study further investigates the correlation between students' frequency of volunteerism<sup>3</sup> and their cognitive moral development, with the specific focus on undergraduate accounting students.

### **Beta Alpha Psi Membership**

Beta Alpha Psi is a national fraternity for business professionals and students. The purposes of this is to recognize outstanding academic achievements in the field of accounting, finance and information systems; promote the study and practice of professional fields related to these disciplines; provide opportunities for self-development and association among members and practicing financial professionals; and encourage a sense of ethical, social, and public responsibilities (<http://www.bap.org>).

Membership of this fraternity is limited to students who have achieved scholastic and/or professional excellence in the fields of accounting, finance or information systems. As the premier professional business and financial information fraternity, Beta Alpha Psi complements members' formal education by providing interaction among

---

<sup>3</sup> Levels of volunteerism were tested using a Likert scale with following measurement levels: 1 – Never; 2 – Rarely ; 3 – Occasionally; 4 – Regularly; 5 – Frequently.

students, faculty, and professionals; fosters lifelong growth and ethical conduct; and requires a mandatory level of public service/volunteerism. While volunteerism is the model most conducive to moral growth; an intelligent mandatory service system can also build character (Reed 2001). Whether voluntary or mandatory, a sound delivery system can enhance the development of moral wisdom (Reed 2001). Given the public service requirements<sup>4</sup> of membership, the researcher considered the influence of membership on the undergraduate accounting students' moral development and moral behavior.

## **APPROACH AND DESCRIPTIVE STATISTICS**

A two-part instrument entitled Decisions, Internship, and Volunteerism Assessment (DIVA), was distributed to 341 accounting students in seven universities throughout the country during accounting class time. The DIVA<sup>5</sup> determined the level of student's cognitive moral development<sup>6</sup> (CMD) and the questionnaire portion collected information about students' demographics, ethics education, internship experiences, volunteerism level, and Beta Alpha Psi membership.

### **Data Collection Process**

The data for this study were gathered during the Fall semester 2002, using a total of seven different universities throughout the United States in the sample, which included 408 students. As the researcher anticipated a portion of the sample data were not included

---

<sup>4</sup> Requirements for Beta Alpha Psi membership may vary from school to school (e.g.; GPA level), yet all chapter require at least a minimum GPA of 3.0 and weekly performance of volunteerism for a member to be in good standing. All Beta Alpha Psi chapters included in the survey for this study were in good standing.

<sup>5</sup> The DIVA instrument is comprised of a nationally validated instrument called the Defining Issues Test Revised- DIT2 and coupled with a questionnaire developed for this study.

<sup>6</sup> CMD levels were derived by the Defining Issues Test Revised (DIT2) (part one of the DIVA) through the calculation of the P Score and the N2 Index. Both scores represent measurements of the different stages (see footnote<sup>1</sup> for stages) of cognitive moral development, as defined by Kohlberg (1979).

in the study. After analyzing the data, sixty-seven DIVA surveys were purged. The purged DIVAs were eliminated for the following reasons:

- Student indicated that English was not his/her primary language.
- Student indicated that he/she was a non-traditional undergraduate student because of part-time matriculation and/or being over 25 years of age.
- Student did not meet the validity tests of the DIT2 or not completed.
- Student indicated that he/she was not an accounting major.

After the removal of the 67 surveys, the sample size was accordingly reduced when analyzing the hypotheses ( $N = 341$ ).

The purposeful sample was drawn from seven different undergraduate institutions throughout the country. Distributions of the DIVA survey were conducted at institutions that are AACSB accredited that offer degrees in licensure programs of public accounting. Furthermore each school had a Beta Alpha Psi chapter that has been awarded superior status within the last five years. Superior status is awarded to chapters whose student members exemplify the characteristics desirable for the incoming professional entering the financial service industry, and are actively recruited by the major international and national public accounting firms for full time employment. Lastly, a mix of secular and non-secular schools were selected to yield data that best demonstrate any possible relationship between student's responses from both types of educational philosophies.

Students were administered the DIVA during advanced level accounting class time. Faculty members who supported this research allowed the students forty-minutes to

complete the survey and instructed the student with a one-page instruction sheet provided by the researcher<sup>7</sup>.

Analyses of variance (ANOVAs), multiple correlation matrices and multiple regression analyses were used to determine levels of variance and significance in predicting the cognitive moral development (CMD) of undergraduate accounting students, as well as determining predictors of moral behavior. Tables 1, 2, and 3 and Figure 1 report the descriptive analysis of the data collected from this study.

**Table 1**  
**Students Ethics Education**

Number of Courses	Courses in Philosophical Ethics Frequency (%)	Courses in Business Ethics Frequency (%)
Two or More Courses	93 (27.3%)	34 (10.0%)
One Course	129 (37.8%)	178 (52.2%)
Within Other Courses	63 (18.5%)	94 (7.6%)
None	56 (16.4 %)	35 (10.3%)
Total	341 (100.0%)	341(100.0%)

<sup>7</sup> Responses were collected after the forty-minute period thus the return rate of distributed DIVA instruments was not an issue for this study. The DIVA was distributed during course classroom periods at institutions whose accounting faculty expressed a willingness to assist the researcher. The courses were selected to ensure the following: 1) Students were not duplicated in the study. 2) Students had varying levels of business ethics education. 3) Students had different levels of philosophical ethics education. 4) Students were of mixed gender. 5) Students who were Beta Alpha Psi members and students who were not Beta Alpha Psi members. 6) Students who did and did not have internship experiences.

**Table 2****Student Gender, BAP Membership and Religious Affiliation of Schools**

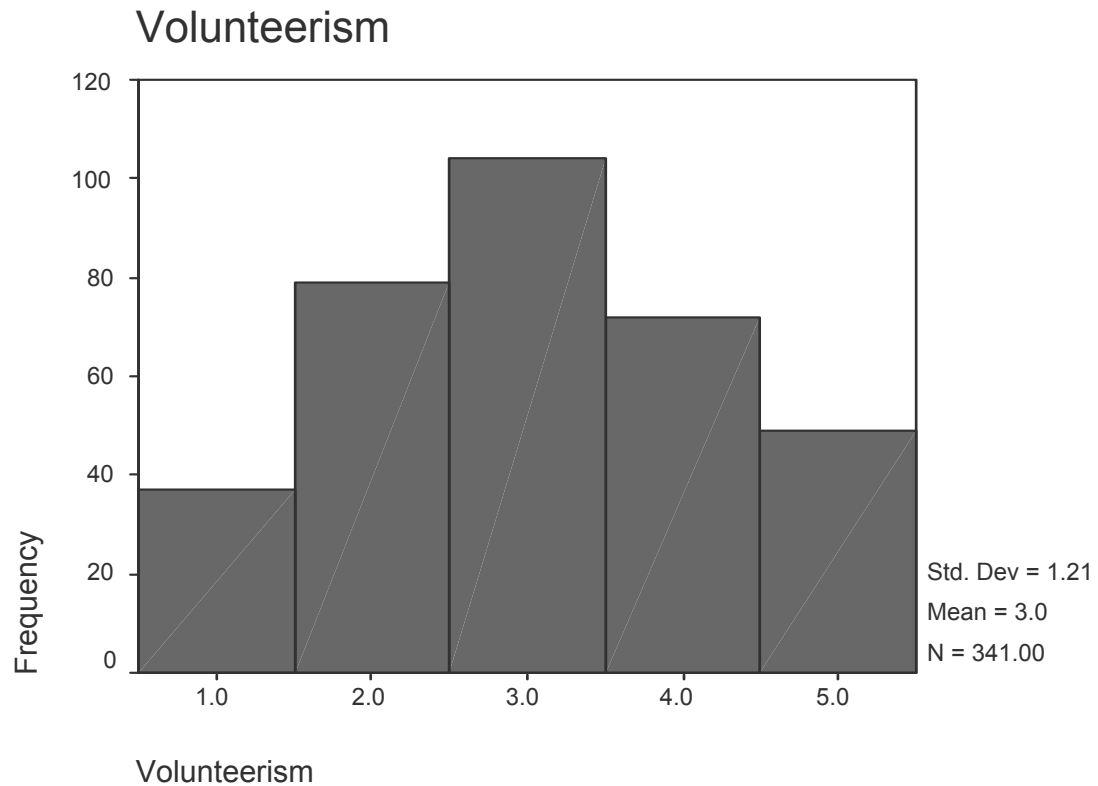
Variable	Frequency (%)	Frequency (%)	Total (%)
Gender	Male 219 (64.2%)	Female 122 (35.8%)	Total 341(100.0%)
BAP Membership	Member 145 (42.5%)	Nonmember 196 (57.5%)	Total 341(100.0%)
Religious Affiliation of High School	Catholic Affiliation 97 (28.4%)	Non-Affiliation 244 (71.6%)	Total 341(100.0%)
Religious Affiliation of College	Catholic Affiliation 176 (51.6%)	Non-Affiliation 165 (48.4 %)	Total 341(100.0%)

**Table 3****Student Internship Experience**

Internship Experience	<i>Frequency (%)</i>
More Than One Year	63 (18.5 %)
Less Than One Year	45 (13.2%)
Nine Months or Less	25 ( 7.3%)
Six Months or Less	53 (15.5%)
No Experience	155 (45.5%)
Total	341(100.0%)

**Figure 1**

**Volunteerism Histogram of Responses**



**RESULTS**

**Introduction to Hypotheses Review**

Four Hypotheses were proposed and tested for this study. Cognitive moral development (CMD) was correlated to: ethics education in Hypothesis 1 (H1), prosocial behavior (volunteerism) in Hypothesis Two (H2), internship experience for Hypotheses Three (H3) and Beta Alpha Psi membership in Hypothesis Four (H4). Lastly, the researcher examined the relationship, if any, of gender, religious affiliation of undergraduate students' college and high school education.

## Ethics Education and Cognitive Moral Development

Analysis of variance procedures were calculated to establish whether a significant difference exists between students who received college philosophical and business ethics education and students who did not, relating to their cognitive moral development (H1).

### Hypotheses One

Reject	H1	Students with philosophical and business ethics education attain <i>higher stages of moral development</i> , derived from DIT2 Scores <sup>8</sup> , than students who have no philosophical and/or business ethics education.
--------	----	--

Hypothesis One (H1) states that a positive relationship exists between students who have received ethics education in college and postconventional moral development, determined by scores yielded from the Defining Issues Test Revised (DIT2). The results of this research show that *no* relationship exists between ethics education and cognitive moral development of undergraduate accounting students. This study's findings support existing literature that suggests *no* significant relationship exists between undergraduate accounting students' cognitive moral development and their college ethics education level (Ponemon, 1993; Rest & Narvaez, 1994; Bay & Greenberg, 2001) while contradicting publications that claim a correlation does exist (Armstrong, 1993, Rest, 1986). Although the findings of this study did not prove that a significant relationship

---

<sup>8</sup> The DIT2 calculates two indexes used for this study. An index is the overall score by which a participant is characterized. In other words, an index is the number used to represent a participant's development. The most used index for the DIT for over 20 years has been the P index, which is based on a participant's ranking of prototypic items written for Kohlbergian postconventionation stage (see footnote<sup>1</sup>). The P index is interpreted as the relative importance participants give to principled moral considerations (Postconventional Stage in making a moral decision. The DIT2 also provides the researcher an additional index called the N2. This new score is claimed by the developer of the DIT and DIT2 to be generally (but not invariantly) better, than the P index (Rest et al., 1997).



exists between ethics education and CMD, the researcher considers literature (Shaub, 1994; Armstrong, 1987; Rest 1986, Rest et al., 1986, Bernardi et al., 2002) to the contrary an indication that different types of ethics education vary in their effectiveness.

**Table 4**  
**ANOVA - Philosophical Ethics Education Categories to CMD Scores**

CMD Scores	None		Within Other Classes		One Class		Two or More Classes		<i>P</i>
	<i>N</i> = 56		<i>N</i> = 63		<i>N</i> = 129		<i>N</i> = 93		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
P Score	33.54	15.06	33.53	12.47	35.02	14.56	34.81	15.13	.86
N2 Index	33.42	14.68	33.62	13.00	34.26	14.09	34.40	14.98	.97

**Table 5**  
**ANOVA – Business Ethics Education Categories to CMD Scores**

CMD Scores	None		Within Other Classes		One Class		Two or More Classes		<i>P</i>
	<i>N</i> = 35		<i>N</i> = 94		<i>N</i> = 178		<i>N</i> = 34		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
P Score	31.90	16.62	33.42	13.62	35.99	14.29	31.82	14.23	.19
N2 Index	30.34	16.37	34.22	13.12	35.24	14.21	31.09	14.08	.16

## Internship Experience and Cognitive Moral Development

ANOVAs were performed to establish whether significant differences exist between students who have worked in public accounting firms as interns and students who have not worked, pertaining to their moral development (H2).

### Hypotheses Two

Reject	H2	Students with internship experiences achieve <i>lower</i> stages of cognitive moral development, derived from DIT2 Scores, than students without internship experience.
--------	----	---

Hypothesis Two (H2) proposes that an inverse relationship exists between a student who has experienced an internship with an accounting firm and postconventional moral development, as determined scores yielded from the DIT2. The surprising results of this research show that a *positive* relationship is demonstrated between *extensive* (more than one year) preprofessional experiences and cognitive moral development of undergraduate accounting students. The literature in this area focuses mainly on professional experience affects rather than preprofessional experiences. Shaub (1994), for example, determined that certified public accountants (CPAs) reach lower stages of moral development than the population of college educated adults, and the results from the Defining Issue Test were inversely related to CPAs position level.

Ponemon (1990) conducted a qualitative study using interviews and audit cases completed by CPAs at various position levels in public firms. Data coding results from interviews indicated the cognitive moral development decreases for CPAs at higher positions in public accounting firms. Another study by Ponemon (1992) found that moral

development scores, also derived from Defining Issue Test (DIT), from staff to senior levels but decrease in the manager and partner ranks in two separate studies.

Prior studies (e. g. Shaub, 1994; Ponemon, 1992; Ponemon 1990; Ponemon & Gabhart, 1990) suggested that an inverse relationship may exist between undergraduate accounting students' moral development levels and their internship experience, yet the *initial* findings of this study denote that *no* significant relationship exists for internships that are less than one year. Furthermore, and more importantly, a *positive* meaningful correlation was demonstrated between extensive (longer than one year) internships and cognitive moral development of accounting students therefore H2 is rejected.

Although the results where not significant for the first ANOVA, a careful examination of both the P Score and the N2 Index (CMD) scores did, however, reveal that a relationship may exist between the variables. The researcher noted that the CMD score *increased* slightly with each category, with the largest difference between the first and fifth category.

**Table 6**  
**ANOVA - Internship Experience for All Five Categories to CMD**

	More than 1 Year		Less than 1 Year		9 Months or Less		6 Months or Less		None		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>P</i>
P Score	37.11	14.53	35.16	14.85	35.80	13.52	34.67	13.24	32.86	14.69	.36
N2 Comp. Index	36.82	13.47	34.57	13.68	33.94	13.81	34.85	13.49	32.46	14.89	.33

Considering Table 6 findings, the researcher performed Post Hoc analysis comparing category “5”, representing more than one year of internship experience with category “1” representing no internship experience. An additional ANOVA, Table 7, was conducted for both the P Score and the N2 Index with a sample, ( $N = 217$ ) by eliminating categories “4”, “3” and “2”. Even though the results of the analysis did not reach a reputable level of significance of  $p = .05$  or less, for the P Score, a significant relationship was detected for the N2 Index. Thus a meaningful relationship between moral development and extensive internships experience is demonstrated.

Two conclusions may be drawn from these results of the second ANOVA. First, internship experience does not negatively impact students’ moral cognition as the literature suggests; and temporary or brief internships occurring for less than one year do not impact moral development of accounting students. Therefore, preprofessional employment that typically last for three months, namely a summer or *busy season* internships, do not alter a student’s moral development in either a positive or negative direction. Clikeman & Henning (2000) examined undergraduate accounting students’ opinions regarding ethical dilemmas specific to the auditing function and determined that students appear to begin to adopt the attitudes of their professional reference groups before they even commence their professional careers. This research reveals that lengthy (more than one year) exposure to the “real world” of public accounting may have an impact on *positive* (not a *negative* as initially proposed) on postconventional development of moral thinking of accounting students. Although all firms conduct formal and collective training, it may be the informal aspects of preprofessional exposure that impact moral growth.

**Table 7****ANOVA – Extensive Internship Experience & No Experience Categories to CMD**

	More Than One Year <i>N</i> = 63		None <i>N</i> = 155		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
P Score	33.84	15.12	34.78	14.00	.053
N2 Index	32.79	15.15	34.74	13.60	.045*

\*  $p < 0.05$

Lastly, in an attempt to explain the positive correlation, the researcher further examined the relationship between internship experiences and volunteerism. This study indicates that students, who work while in college, are more likely to give up their time to help others. Certified public accountants (CPAs) often volunteer for organizations whose goals they support or with which they feel an emotional connection (Shafer, et al., 1999). Although most people volunteer primarily for the personal satisfaction they get from helping others, students may volunteer their time because most large CPA firms encourage employees to participate in volunteer activities, some even provide time off with pay for such participation (Shafer, et al., 1999, Reed 2001). Regardless of the motivation driving the public service, results of this study suggest that volunteerism in the work place may have a positive result towards the development of moral cognition thus further investigation of volunteerism is explored.

A weakness of this study is students were surveyed using nominal/categorical information for internship experience levels and grade point averages therefore future research on the relationship of internship and moral growth may consider utilizing metric

data rather than nominal data converted by Indicator coding. The ability to use metric data will provide the researcher the opportunity to utilize different forms of statistical analysis and may also provide more robust data for examination.

Additionally, the relationship between longer internship experiences and moral development should be further investigated. This study revealed that a correlation between extensive preprofessional experience and moral development may be present but the findings of the study were not conclusive. Potential studies may obtain internship data by requesting the actual time using months and years, as well as a description of the type of internship work and where the internship experience takes place.

### **Prosocial Behavior (Volunteerism) and Cognitive Moral Development**

For the third hypothesis (H3), the researcher used a Pearson correlation to determine if there is any correlation between CMD, determined by DIT2 (P Score and N2 Index), and moral/prosocial behavior, defined by five different levels of volunteerism

### **Hypothesis Three**

Accept	H3	Students with <i>higher</i> stages of cognitive moral development, derived from the DIT2 Scores, exhibit greater moral behavior, measured by the higher scores in the volunteerism, than students with lower stages of moral development.
--------	----	---

Findings of the correlation analysis determined that cognitive moral development scores, correlate at levels over 50 percent for both DIT scores when compared to moral behavior defined as volunteerism (H3). This finding supports the relationship between volunteerism and moral cognitive growth.

**Table 8****Pearson Correlation Matrix - Correlations of CMD Scores and Volunteerism**

	Volunteerism	P Score	N2 Index
Volunteerism	1.000		
P Score	.499**	1.000	
N2 Index	.526**	.873**	1.000

\*\*  $p < 0.01$

Volunteerism provides encounters that can change students' frame of reference or perspective on people and their problems (Reed 2001). The experience of donating time to help others leads students to see links between theory and practice while teaching students to think beyond themselves and the university walls (Shiarella, et al., 2000). Volunteerism also improves interpersonal skills and critical thinking, and provides students with education in citizenship (Shafer, et al., 1999). Postconventional moral development is characteristic of the ability to consider the needs of others, thus encouraging volunteerism among accounting students, regardless of egotistic or altruistic sources of motivation, should logically have a positive impact on their moral cognition. As the researcher hypothesized, the findings of this study conclude that volunteerism is a powerful and identifiable correlate to cognitive moral growth of undergraduate accounting students.

**Beta Alpha Psi Membership and Cognitive Moral Development**

ANOVAs were performed to determine whether a significant difference exists between students who are members of Beta Alpha Psi (BAΨ) National Honor Society

and students who are not members, relative to their cognitive moral development (H4) and prosocial behavior (volunteerism).

#### Hypothesis Four

Accept	H4	Students who are members of Beta Alpha Psi (BAΨ) reach <i>higher</i> stages of CMD, derived from DIT2 Scores, than students who are not members.
--------	----	--

The results of analyses determine that the overall ANOVA's were significant therefore the final hypothesis asserts that a positive relationship would result between students who are active members of the National Honor Society of Beta Alpha Psi (BAΨ) and students' who score higher postconventional moral development scores on the DIT2. The results of the study indicate a highly significant relationship exists between Beta Alpha Psi (BAΨ) membership and cognitive moral development of undergraduate accounting students. Positive correlation between BAΨ Membership and cognitive moral development (CMD) could provide vital information that may better assist accounting firms in identifying the moral cognition stages of prospective accountants.

Furthermore, the researcher tested the relationship between volunteerism and BAΨ membership. For this study, moral behavior was defined as frequency levels of volunteerism. ANOVAs revealed a positive relationship between the students who are active members of Beta Alpha Psi and their level of moral behavior demonstrated through frequency of volunteerism. Membership requires a level of public service thus students' activities could be termed for this research as involuntary volunteerism. Results indicate that motivation of service does not impact the effect on the students' moral



development. Also, the anticipated correlation of membership and prosocial behavior provided the researcher with an added level of data validity.

The researcher is cautious with this discovery. Although a strong association exists between Beta Alpha Psi membership and postconventional moral thinking, volunteerism is a requirement for active membership, so any statements about cause-and-effect relationships could be misconstrued considering the significant relationship between moral development measurements (P Score and N2 Index) and volunteerism. Additionally, Beta Alpha Psi is an honor society thus attracting particular types of students. Accounting students must maintain high grade point averages and pay yearly dues, as well as regularly dedicate their time to help others to fulfill *good-standing* membership status. Thus the cause-and-effect aspect of this finding is not, in the opinion of the researcher, the critical discovery but rather that membership in Beta Alpha Psi can serve as a reliable indicator of students who have reached higher stages of cognitive moral development. This finding can be monumental in the recruiting processes, since Beta Alpha Psi membership not only identifies the brightest students but may also distinguish those students who have reached higher levels of moral cognition. Additionally, with the rapidly approaching New York State 150 semester hour requirement, universities are pressed to establish new admission policies for graduate studies beyond the traditional standardized examinations. Therefore, honor societies – such as Beta Alpha Psi – which promote educational excellence and require volunteerism can be used not only as employment selection criteria but also as a decisive factor in graduate school acceptance. Considering the ethics problem in front of the accounting

profession, identifying future accountants with advanced moral development through Beta Alpha Psi Member can serve as a critical part of the solution.

**Table 9**

**ANOVA -Beta Alpha Psi (BAΨ) Membership and Non-membership to CMD Scores**

CMD Scores	BAΨ Membership <i>N</i> = 145		BAΨ Non-Membership <i>N</i> = 196		<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
P Score	42.33	13.52	28.61	12.08	.000***
N2 Index	42.40	12.27	27.85	12.22	.000***

\*\*\*  $p < 0.001$

**Additional Research Results**

ANOVAs were conducted to determine if significant relationships exist among accounting students' moral development and moral behavior and students' year of college study, gender, grade point average and the religious affiliation of their high school and college. Relationships were not proven significant for cognitive moral development when compared with gender, grade point average and religious affiliation of their high school. In contrast, significant relationships were determined between cognitive moral development and year of college study and college religious affiliation. The researcher considered these supplemental findings of significance, along with the hypotheses results, to explore predictive measurements of undergraduate accounting student's moral development and moral behavior.

### Cognitive Moral Development Predictor Research

The major purpose of correlational research is to clarify our understanding of important phenomena through the identification of relationship among variables. Another purpose of correlational research is that of prediction: If the relationship of sufficient magnitude exists between two or more variables, it becomes possible to predict outcome or behavior (Fraenkel & Wallen, 1996). The researcher performed stepwise regression analysis as follow-up testing to determine the combined effects of all the independent variables on moral development as defined by this study.

**Table 10 Stepwise Regression P Score as Dependent Variable**

**Stepwise Regression of Behavioral Variables and Demographic Variables Predicting Cognitive Moral Development with the Post Conventional Score (P score)**

Variable	B	SE B	$\beta$	<i>t</i>	<i>p</i>
Volunteerism Level of Student	4.13	.62	.35	6.62	.000***
Beta Alpha Psi Honor Society Membership	8.09	1.52	.28	5.32	.000***
Religious Affiliation of Students' College	4.71	1.28	.16	3.68	.000***

$R = .58$        $R^2 = .34$        $\Delta R^2 = .33$        $SE = 11.78$

\*\*\*  $p < 0.01$

Additionally, the results of the regression models explained nearly thirty-eight percent of the reasonable or visible chain of causation of postconventional moral development of undergraduate accounting students. Each of these three independent

variables can serve as identifying mechanisms of future accounting professionals, in both educational or training settings and public accounting recruiting activities. According to the multiple regression the variables volunteerism, Beta Alpha Psi membership, and religious affiliation of college combine to explain thirty-three percent of the dependent variable P Score:  $R^2 = .34$ ; adjusted  $R^2 = .34$ ;  $F(3,337) = 56.83, p = .000$ . The stepwise regression analysis validates results found in both correlations and ANOVAs noting that student government participation and reflective decision-making do not predict a students' cognitive moral development (CMD) level. The regression formula, displayed in Figure 2, predicts a student's cognitive moral development (CMD) measured by the P Score. The formula uses three predictive variables to measure CMD: volunteerism, Beta Alpha Psi membership and religious affiliation of college.

The regression formula in Figure 2 uses the P Score derived from the DIT2 scores which are validated measurements of postconventional moral development levels (Rest, 1988; Rest & Narvaez, 1994; Rest & Narvaez, 1998; Rest, et al., 1999, Rest, et al., 2000). The researcher conducted two step-wise regression analyses for the P Score<sup>9</sup> that confirmed that ethics education and *brief* internship experience do not impact a student's cognitive moral development.

**Figure 2**

**Stepwise Regression Model of P Score**

$$Y^2_{\text{P Score}} = 15.99_{\text{intercept}} + 4.13_{\text{Volunteerism}} + 8.09_{\text{Beta Alpha Psi Membership}} + 4.71_{\text{College Religious Affiliation}}$$

---

<sup>9</sup> The researcher also calculated Stepwise Regression of Cognitive Moral Development with the Post Conventional Score for the N2 Index. The results of analysis were nearly identical to the P Score except for the inclusion one additional variable - students' year of college study – which had a negligible contribution to the formula. The most powerful predictors for both DIT2 Scores of cognitive moral development were students' level of volunteerism, followed by Beta Alpha Psi membership and lastly, the religious affiliation of the student's college.

The following example demonstrates the use of the stepwise regression model of P Score formula:

If a student is a member of BAΨ (Dummy Code 1), frequently volunteers their time (Likert Scale of 5) and attends a religiously affiliated university (Dummy Code 1); he/she will likely use postconventional moral development thinking forty-nine percent of the time,  $[49.44 = 15.99 + 20.65 (4.13 \times 5) + 8.09 + 4.71]$ .

## **RECOMMENDATIONS**

### **Recommendation for Ethics Education**

Although the findings of this study did not prove that a significant relationship exists between ethics education and cognitive moral development, the researcher considers literature to the contrary an indication that certain types of education are effective (Armstrong, 1989, Rest, et al., 1999b, Bebeau, 2002). Contemplating current writings on the impact of ethics education, the researcher suggests that in order for ethics education to be successful, it needs to be specific and experiential rather than traditional and general. The researcher recommends that deliberate and specific ethics education become part of the accounting curriculum, with a community service component attached.

Substantial literature exists confirming that ethics education can result in advances in moral development (Armstrong, 1993; Rest, 1988), thus although the results of this particular study indicate that ethics education is not a correlate to moral development, these findings may suggest that students surveyed were exposed to ineffective ethics educational attempts. The researcher advocates changing ethical

education to include more attention to field based teachings rather than classroom general theory and principles. As Nearon (2002) highlights in a The CPA Journal:

If the crisis in accounting is genuine, then the education system may be a good place to start trying to understand why accounting practice has failed. Accounting education is composed of inputs, procession and outputs. The inputs are the accounting professors and new undergraduate students, the subject matter, and the funding. Processing encompasses research and instruction. The outputs are graduates, research, and entry-level accountants.  
(p. 32)

A new educational model, requiring all students to know in detail the Code of Professional Conduct (ET 50), in particular, the rules for independence, integrity and objectivity (ET 100), coupled with real practice case studies, could serve to better prepare the accountants of the future. The current crisis of ethics in accounting, coupled with the quickly approaching New York State 150 semester hour requirement, result in an immediate need to extend and refine the theoretical and ethical dimensions of educational accounting pedagogy.

### **Recommendation Extensive Internship Experience**

Since the results of this study indicate that preprofessional exposure has a positive, rather than an anticipated negative impact, on the moral growth of college students, accounting firms should be encouraged to continue and expand their current efforts to train their interns. Leadership programs, community service days, and externship programs – where students participate in specific firm events as nonemployees – would appear to create the initial interest that leads to the secured internship experience. Once accounting students are employed, accounting firms should permit and encourage future accountants to participate in every aspect of public accounting that will foster their moral growth. Although internships, especially those targeted at lower

division college students, have served as an early identification technique for recruiting efforts, the findings of this study create an awareness of the impact pre-employment has on undergraduate accounting students' cognitive moral development.

Results of this current study indicate that accounting firms can and do affect the moral development of student employees. If accounting companies accept the additional responsibility of pre-fulltime employment, they should attempt to further advance their positive influence on accounting students through intentional ethics education programs (Rest, 1988) and community service opportunities within the field of public accounting. Through the combination of volunteerism and exposure to ethical public accounting practices, accounting internships will provide accounting students with a memorable and enriching experience. The results of this present study determined that accounting professionals have the ability to make a difference in the moral growth of future accountants: Consequently, public accounting companies must be aware of their capability to foster moral development in undergraduate accounting students, and in doing so, participate in a greater commitment to cultivate entry level practitioners with a professional and moral conscience.

### **Recommendation for Volunteerism**

In the past twenty years, service-learning has emerged in its current form and become increasingly popular. Briefly defined, it is a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities designed to promote student learning and development Service-learning. Unlike most volunteerism, where the student simply performs community service, service learning has a very important rumination component. The

reflective aspect of this experience can further advance the positive effects of volunteerism on cognitive moral development.

Educators, researchers, and policy makers believe that community service provides valuable experiences for students. Since service learning carries the experience beyond the classroom, it is critical to the education of the college student. Eyler & Giles (1999) describe the benefits of service learning:

Recently, service learning has been put forward as a means for increasing students' limited knowledge about democratic politics and general sense of civic responsibility. Service learning is a form of experiential education that combines structured opportunities for learning academic skills, reflection on the normative dimensions of civic life, and experiential activity that addresses community needs or assists individuals, families, and communities in need.  
(p. 120)

Although volunteerism has continued to become increasingly popular, the results of this study have determined a positive correlation to moral development thus exposing an additional benefit derived from students' community service experiences.

Nearly all major public accounting firms conduct community service days and/or sponsor volunteer organization. Rather than spend funds on leadership programs and expansive recruiting activities, firms and colleges should consider the future benefits and the cost savings of having college students participate in community service activities. This arrangement can allow firms to develop relationship with students as a means of early identification for employment, while enabling the students the opportunity to develop socially, educationally and most importantly, morally.

### **Recommendation for Beta Alpha Psi Membership**

Accounting firms and college students have always appreciated the many benefits of Beta Alpha Psi membership. Membership into the Honor Society is prestigious, and it



provides students with networking privileges. Accounting firms already consider membership as an identification of the most desirable students; yet, the results of this study illuminates an additional reason why these students have been deemed the ‘cream of the crop’. This study has determined that a significant relationship between Beta Alpha Psi and cognitive moral development exists. Although the reasons for this relationship have not been fully explored, this finding provides critical supplementary information to public accounting firms because undergraduate students with advanced moral cognition are likely to become superior public accountants.

## **DISCUSSION AND CONCLUSION**

Findings suggest a need for extended research as to the factors that affect the cognitive moral development of future accounting professionals. Further investigation into the relationships of volunteerism, extensive internship experiences, Beta Alpha Psi membership and cognitive moral growth is desirable. Members of accounting academia should be cognizant that accounting students do not enter into professional role ready at once to take on all challenges of public accounting. Future accountants first acquire some basic technical knowledge through formal education, and perhaps some appropriate behavior in varying circumstance from academic and professional role models. Yet the ethical imperatives come from many sources, not the least of which may be internship experiences and honor society memberships. The transformation process of young adults that occurs during the college years carry over into professional life and enhances an individual’s ability to function with integrity and self-confidence.

Universities have a unique opportunity to develop undergraduate students for careers in accounting during a time of overwhelming changes in technology, globalization and technical pronouncement proliferation while fostering greater ethical awareness and professional responsibility, the fundamental issues facing the accounting profession. The power of accounting educators to understand and influence the moral development of accounting students may prove vital relative to the accounting profession and society as a whole.

## References

- Allen, P. W., & Chee, K. N. (2001). Self interest among CPAs may influence their moral reasoning, *Journal of Business Ethics* 33 (1), 29-35.
- American Accounting Association. (1986). *Future accounting education: Preparing for the expanding profession*. Committee of the Future Structure, Content and Scope of Accounting Education, the Bedford Committee. New York: Author.
- American Institute of Certified Public Accountants (1992). *The CPA Code of Professional Conduct*, 2, 4269-4909. Chicago: Commerce Clearing House: Author.
- Armstrong, M. B. (1987). Moral development and accounting education. *Journal of Accounting Education*, 5, 27-43.
- Armstrong, M. B. (1993). Ethics and professionalism in accounting education: A sample course. *Journal of Accounting Education*, 11, 77-92.
- Armstrong, M. B., & Mintz, S. M. (1989). Ethics education in accounting: Present status and policy implications. *Association of Government Accountants Journal*, 3, 70-76.
- Bay, D. D. & Greenberg, R. R. (2001). The relationship of the DIT and behavior: a replication. *Issues in Accounting Education*, 16, 367-380.
- Bebeau, M. J. (2002). The defining issues test and the four component model: Contributions to professional education. *Journal of Moral Education*, 31 (3), 271-296.

- Berkowitz, A. L. (2002). *Enron: A professional's guide to the events, ethical issues, and proposed reforms*. Chicago: CCH Incorporated.
- Bernardi, R. A. (1994). Fraud Detection: the effect of client integrity and competence and auditor cognitive style. *Auditing: A Journal of Practice & Theory*, 13 (Supplement), 68-84.
- Bernardi, R. A. (1995, Fall). Ethics research on accounting: a note on using the defining issues test. *Accounting Educators' Journal*, 1-16.
- Bernardi, R. A., Downey, A., Massey, D.W. & Thorne, L. (2002) Critical thinking and the moral reasoning of intermediate accounting students. *Research on Accounting Ethics*, 8, 73-102.
- Bernardi, R. A. & Arnold, D. F. (1997). An examination of moral development within public accounting by gender, staff, level, and firm. *Contemporary Accounting Research*, 14, 653-658.
- Bracken, R. M., & Urbancic, F. R. (1999). Ethics content in introductory accounting textbooks: an analysis and review. *Journal of Education for Business*, 74, 279-284.
- Bricker, R. & Previts G. (1990.) The sociology of accountancy: A study of academic and practice community schisms. *Accounting Horizons*, 4, 1-14.
- Clikeman, P. M., & Henning, S. L. (2000). The socialization of undergraduate accounting students. *Issues in Accounting Education*, 15, 1-13.
- Cohen, J. R., & Pant, L. W. (1989). Accounting educators' perceptions of ethics in the curriculum. *Issues in Accounting Education*, 4, 70-81.
- Cronbach, L. J. with Shapiro, K. (1982). *Designing evaluations of educational and social programs*. New York: Jossey-Bass.
- Eisenberg, N., Carlo, G., Murphy, B. & Van Court, P. (1995). Prosocial development in late adolescence: A longitudinal study. *Child Development*, 66, 911-936.
- Eyler, J., and Giles Jr., D. E. (1999). *Where's the Service in Service Learning?* San Francisco: Jossey-Bass.
- Fisher, C. (1986). Organizational socialization: An integrative review. *Research in Personnel and Human Resource Management* 4, 101-145.
- Fogarty, T. J. (2000). Socialization and organizational outcomes in large public accounting firms. *Journal of Managerial Issues* (12) 1, 13-34.

- Fraenkel, J. R., & Wallen, N. E. (1996). *How to design and evaluate research in education* (3<sup>rd</sup> ed). New York: McGraw-Hill.
- Gorman, M., & Duffy, J. (1994). Service experience and the moral development of college students. *Religious Education*, 89, 422-431.
- Grumet, L. L., (2002). Steering the accounting profession past the ethical icebergs. *The CPA Journal*, 72 (9), 9-15.
- Guy, D. M., Carmichael, D. R., & Lach, L.A. (2003). *Ethics for CPAs: Meeting Expectations in Challenging Times*, Hoboken, New Jersey: John Wiley & Sons, Inc.
- Hiltebeitel, K. M., & Jones, S. K. (1991). Initial evidence on the impact of integrating ethics into accounting education. *Issues in Accounting Education*, 6, 262-276.
- Hilzenrath, D. S., & Day, K. L. (2002). SEC gets into the nitty-gritty of accounting rules. *The Washington Post*; Washington, D.C.; Oct 17, 2002.
- Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*. Cambridge, England: Cambridge University Press.
- Hollander, M., & Wolf, D. (1973). *Nonparametric statistical methods*. New York: John Wiley & Sons.
- Jeffrey, C. (1993). Ethical development of accounting students, non-accounting business students, and liberal arts students. *Issues in Accounting Education*, 8, 86-96.
- Kolberg, L. (1958). The developmental of modes of moral thinking and choice in the years 10 to 16. Unpublished doctoral dissertation, University of Chicago.
- Kohlberg, L. (1979). *The Meaning and Measurement of Moral Development*. Worcester, MA: Clark University Press.
- Loeb, S. E. (1988). Teaching students accounting ethics: Some crucial issues. *Issues in Accounting Education*, 3, 316-329.
- Mintz, S. M. (1999). *Cases in Accounting Ethics and Professionalism*. New York: McGraw-Hill.
- Murphy, B.C., Shepard, S.C., Carlo, G., & Eisenberg, N. (2002, June). Prosocial personality: A longitudinal study. *Journal of Personality and Social Psychology*. 82 (6), 993-1006.

- Nearon, B. H. (2002). A radical proposal for accounting education. *The CPA Journal*, LXXII (10) 28-33.
- Penner, L. A. & Finkelstein, M. A. (1998). Dispositional and structural determinants of volunteerism. *Journal of Personality and Social Psychology*, 74, 525-537.
- Ponemon, L. A. (1990). Ethical judgments in accounting: A cognitive-development perspective. *Critical Perspectives on Accounting*, 191-215.
- Ponemon, L. A. (1992). Ethical reasoning and selection-socialization in accounting. *Accounting, Organizations and Society*, 239-258.
- Ponemon, L. A. (1993). Can ethics be taught in accounting? *Journal of Accounting Education*, 11, 185-209.
- Ponemon, L., & Gabhart, D. (1990). Auditor independence judgments: A cognitive-development model and experimental evidence, *Contemporary Accounting Research*, 7, 227-251.
- Ponemon, L., & Glazer, A. (1990). Accounting education and the ethical development: the influence of liberal learning on students and alumni in accounting practice. *Issues in Accounting Education*, 5, 195-208.
- Reed, E. L. (2001). Tending the generous heart: Mandatory pro bono and moral development. *The Georgetown Journal of Legal Ethics*. 14, (2), 459-509.
- Rest, J. R. (1979). *Developing in judging moral issues*. Minneapolis: University of Minnesota Press.
- Rest, J. R. (1988). *Moral development advances in research and theory*. New York: Praeger Publishers.
- Rest, J. R., & Narvaez, D. (1994). *Moral Development in the Professions*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1997, September). Alchemy and Beyond: Indexing the Defining Issues Test. *Journal of Educational Psychology*, 89 (3), 498-507.
- Rest, J. R., & Narvaez, D. (1998). *Guide for DIT – 2*. Minneapolis: University of Minnesota Press.
- Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999a). DIT2: devising and testing a revised instrument of moral judgment. *Journal of Educational Psychology*, 91, 644-659.

- Rest, J. R., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999b). *Postconventional Moral Thinking: a Neo-Kohlbergerian Approach*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- Rest, J. R., Narvaez, D., Thoma, S. J., & Bebeau, M. J. (2000). A Neo-Kohlbergian approach to morality research. *Journal of Moral Education*, 29, 381-396.
- Sarbanes-Oxley Act. 2002. Available on the Internet at:  
<http://news.findlaw.com/hdocs/docs/gwbush/sarbanesoxley072302.pdf>
- Shafer, W. E., Park, L. J., Ketchand, A. A., (1999). Giving back: Pro bono accounting services. *Journal of Accountancy*, 188 (5), 95-98.
- Shaub, M. K. (1994). An analysis of the association of traditional demographic variables with the moral reasoning of auditing students and auditors, *Journal of accounting education*, 12(1), 1-26.
- Shiarella, A. H., McCarthy, A. & Tucker, M. L. (2000). Development and construct validity of scores on the community service attitudes scale. *Educational and Psychological Measurement*, V (60), 286-300.
- Verschoor, C. C., (2002). New governance initiatives have ethics component. *Strategic Finance*, 84 (5), 22-24.
- Ziegenfuss, D. E. (1999, Fall). Differences in personal ethical philosophy among accounting students and between accounting students and practitioners. *The Southern Business Review*, 1-9.