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Tax Compliance: Ethical Orientation, Risk Perception And The Role Of The Tax Preparer

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TAX COMPLIANCE: ETHICAL ORIENTATION, RISK PERCEPTION

AND THE ROLE OF THE TAX PREPARER

A Dissertation
presented in partial fulfillment of the requirements
for the Doctor of Philosophy Degree
in the Patterson School of Accountancy
The University of Mississippi

by

ASHLEY BECKETT SOLIZ

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ABSTRACT

In a voluntary tax system, taxpayers have an opportunity to avoid or evade paying taxes. The reasons for and the causes of noncompliance are expansive. One way to increase revenue to the government without increasing taxes is to focus on deterring tax evasion and tax underreporting. The purpose of this study was to examine the effects on tax compliance of the taxpayer's ethical orientation and perceived financial risk, as well as the role of the tax preparer in the compliance decision. This research adds to the current tax compliance literature by investigating (in an experimental setting) the role of the tax preparer in situations where income is not reported to a third party and the tax law is clear, yet noncompliance still occurs. Additionally, this study improves upon previous studies by incorporating an income-earning task, rather than participants receiving an endowment or being given a hypothetical tax scenario. By having participants earn income, the study provides participants with the same sense of income ownership that real-world taxpayers would typically experience. Finally, this study improves upon current studies measuring risk by incorporating a domain specific risk perception measurement scale. For an individual, perceived risk may vary across different risk domains. Therefore, it is beneficial to use a financial risk perception measure, rather than a general measure of risk that includes nonfinancial items. I find a significant main effect regarding the enforcement message of the tax preparer. Individuals receiving a high enforcement message are significantly more compliant than individuals receiving a low enforcement message. Additionally, I find a significant interaction between taxpayer financial risk perception and

ethical orientation, implying that the impact of ethical orientation on tax compliance depends on

the level of the individual's financial risk perception. Specifically, when financial risk

perception is low, tax compliance does not differ based on the level of an individual's ethical

reasoning. However, when an individual perceives financial risk to be high, individuals with low

ethical reasoning are significantly less compliant than individuals with high ethical reasoning.

With regard to absolute compliance, the study demonstrates a significant positive relationship

between 100% compliance and high ethical reasoning. Policymakers and regulators may be able

to use this information in developing more effective means to increase individual tax

compliance.

DEDICATION

This dissertation is lovingly dedicated to my mother, Patricia Beckett Sims and my mother-in-law, Ellen Soliz. Their support and encouragement through this process has never waivered.

This dissertation is also dedicated in memory of my brother, Robby Beckett. He gave me so many years of love and dedication when I needed it most, and he lives in my memories and my heart forever.

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I: INTRODUCTION

Tax compliance is an ongoing concern for the government of the United States. Estimates from an Internal Revenue Service Research, Analysis and Statistics working paper (Black, Bloomquist, Emblom, Johns, Plumley & Stuk, 2012) indicate that the tax gap (the amount of tax revenue the U.S. government is failing to collect) related to underreporting was an estimated $376 billion for the 2006 tax year. This estimate includes underreporting of the individual income tax ($235 billion), the corporate income tax ($67 billion), employment taxes ($72 billion) and the estate tax ($2 billion). Considering that nearly two-thirds of the net tax gap is related to underreporting of the individual income tax, it is important to understand the factors that affect individual income tax compliance.

Citizens are expected to self-report income on tax returns and comply with the tax laws set forth by Congress and regulated by the Internal Revenue Service. The Panel on Taxpayer Compliance Research of the National Academy of Sciences (NAS), in a report commissioned by the IRS, defined tax compliance as follows:

> *Compliance* with reporting requirements means that the taxpayer files all required tax returns at the proper time and that the returns accurately report tax liability in accordance with the Internal Revenue Code, regulations, and court decisions applicable at the time the return is filed. When the taxpayer's return reports a tax liability less than the accurate amount, we use the term *underreporting*. Similarly, we use the term *overreporting* when

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the taxpayer reports a liability greater than required. Underreporting and overreporting

are both forms of noncompliance, as the panel uses the term (p. 21).

When there is a lack of third party reporting to the government, as is the case for self-employed

taxpayers, there is an opportunity not only to underreport income but to overstate deductions as

well. Taxpayers who are subject to third party reporting and withholding still have the

opportunity to underreport by overstating deductions. There are numerous reasons and

justifications by taxpayers for underreporting. First, the ambiguous nature of the tax system

provides the necessary opportunity for underreporting of taxable income. Moreover, many

citizens do not agree with the tax system due to moral or equity concerns and choose to evade

taxes. Finally, there is a monetary incentive for underreporting because, when undetected, the

taxpayer keeps more income.

Various demographic variables, variables that proxy for noncompliance opportunity,

attitudinal variables and structural variables have been investigated to help explain non-

compliance. Of specific interest to this study are ethical orientation, risk perceptions and the role

of the tax preparer. There is strong evidence in the literature that individuals with high ethical

standards are less likely to intentionally evade taxes (Ghosh & Crain, 1995; Reckers, Sanders &

Roark, 1994; Wenzel, 2005). Previous research also indicates that perceived risk of audit and

penalty has a significant relationship with tax compliance (Alm, McClelland & Schulze, 1992;

Schauer & Bajor, 2007; Scholz & Pinney, 1995).

The advice given by and the influence of tax professionals may also affect tax

compliance, because the tax professional is an advisor and advocate for the taxpayer (Klepper &

Nagin, 1989). This dual role places the preparer as both an enforcer of the tax laws and as an

advisor to assist the client in paying the minimum taxes due as required by such laws. When the

tax preparer assumes an enforcement role, his or her influence may help to overcome a taxpayer's propensity towards noncompliance due to the influences of the taxpayer's ethical orientation and risk perception. Hence, the specific research questions addressed in this study are as follows:

1. Does the preparer's communication of both audit risk and required income disclosure affect the taxpayer's compliance decision?

2. Is there a relationship between ethical orientation and tax reporting compliance?

3. Is there a relationship between risk perception and tax reporting compliance?

Motivation for the Study

In the last decade, the U.S. has once again faced the issue of increasing federal debt. As stated in projections by the Congressional Budget Office (CBO) in 2001, the federal government could have erased its debt by 2006 and, in turn, would have been in the black by 2011. Due to economic changes, tax cuts, the war in Afghanistan and Iraq, and stimulus spending in response to the economic crisis, the debt actually increased rather than decreased by the year 2011 (pewtrusts.org, 2011). Although the yearly federal budget deficit has decreased in recent years (from $1,300 billion in 2011 to $483 billion in 2014), the total federal debt continues to increase (cbo.gov, 2015). As long as there are budget deficits, the total federal debt will continue to accumulate.

One way to increase revenue to the government without increasing taxes is to focus on deterring tax evasion and tax underreporting. The individual income tax is the greatest source of revenue for the U.S. government (Black et al., 2012). According to 2001 IRS estimates of the tax gap, only 1.2 % of wages, salaries, and tips were underreported. Therefore, the great majority of underreported income stems from self-employed individuals (Rettig, 2010). As such,

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there is merit in understanding the characteristics of individual taxpayers and the elements in the tax environment that contribute to noncompliance.

Regulators, in an attempt to improve compliance, have an inherent interest in understanding why some taxpayers comply with tax laws and others do not and how the tax preparer fits into the compliance equation. With the number of professionally prepared returns increasing, the IRS would benefit from an improved understanding of the preparer's part in the tax compliance decision. Paid return preparers file about 60 percent of all individual tax returns each year (Johnson, 2015). The role preparers play in the tax environment has been investigated but research to date is inconclusive. Book (2008) points out that most government efforts to increase compliance are aimed at "tempering practitioner's appetites for exploiting ambiguity." While this is important, the tax gap data indicates that a large portion of tax underpayment relates to unambiguous tax situations (Black et al., 2012). Therefore, regulation imposing practitioner penalties for taking aggressive tax positions on ambiguous items does not address the issue of taxpayer underpayment when the tax law is clear. Further research is needed to investigate the relationship between taxpayers and tax preparers in unambiguous tax situations in order to assist policymakers and regulators in developing more effective means to increase individual tax compliance.

<div align="center">Tax Compliance Research</div>

Taxpayers have various motivations for noncompliance. An opportunity to underreport income or overstate deductions opens the door for noncompliance. The classic model of tax evasion – based on expected utility and the economics of crime approach by Becker (1968) – assumes that taxpayers behave in a completely economic manner, only taking into account the risk of detection and punishment. The model contends that taxpayers weigh the expected

benefits of noncompliance (based on income level and tax rate) against the potential costs (based on the probability of detection and penalty). Using this model, it would seem that most taxpayers would be noncompliant, since the actual audit rate is less than 1%. In reality, tax compliance is much higher than the expected utility model implies. It seems that other, non-economic factors affect the compliance decision.

In an attempt to better explain actual compliance rates, later models included non-economic factors relevant to the compliance decision. Fischer, Wartick, and Mark (1992) categorized factors influencing compliance into four broad categories: (1) demographic variables, (2) variables that proxy for noncompliance opportunity, (3) attitudinal variables, and (4) structural variables. These categories provide a good basis for discussing the variables found in individual tax compliance research and will be discussed in greater detail in the literature review.

<center>Ethics and Tax Compliance</center>

Hogan (1973) defines *ethics* as normative systems of rules of conduct developed to provide guidance in social or interpersonal settings. There is strong evidence in the literature that individuals with high ethical standards are less likely to intentionally evade taxes (Ghosh & Crain, 1995; Reckers et al., 1994; Wenzel, 2005). In addition, the taxpayer's ethical judgments are influenced by the taxpayer's opportunity to evade and these two variables cannot be treated as being independent of each other (Blanthorne & Kaplan, 2008). Furthermore, existing research indicates that there is a relationship between ethical standards and risk perception, and that this relationship provides insight into individual tax compliance (Eisenhauer, Geide-Stevenson, & Ferro, 2011; Ghosh & Crain, 1995).

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Risk and Tax Compliance

In tax compliance research, the risk of audit and the taxpayer's response to such risk are important variables in explaining the compliance decision. Rohrmann (2008) defines *risk attitude* as a generic orientation (mind-set) towards taking (*risk propensity*) or avoiding (*risk aversion*) a risk when deciding how to proceed in situations with uncertain outcomes. *Risk behavior* is defined as the actual behavior of people when facing a risk situation. *Risk perception* is the individual judgment of whether a particular choice or decision involves risk. Schauer and Bajor (2007) point out that audit risk perception is more important to understand than actual probabilities of audit and detection, because taxpayers react and make decisions based on their perceptions of the risk. Furthermore, for an individual, perceived risk is varied across different risk domains (Schoemaker, 1990) and individual differences in behavior may be attributable to perceived risk rather than general risk attitude (Weber & Hsee, 1998). Therefore, in the current study, a domain specific risk scale will be used to measure risk perception. This improves upon other studies by measuring perceived risk, rather than strictly measuring risk behavior or risk attitude, on the financial domain relevant to the tax compliance decision.

The Tax Preparer and Tax Compliance

The relationship between a taxpayer and his or her tax preparer consists of a complex exchange of information. It is the taxpayer's responsibility to provide the preparer with accurate information on which the preparer then bases his or her recommendations regarding various tax positions. In some instances, the tax law is clear, but in other situations it is not. In these cases, the preparer is responsible for advising the client to take the most favorable tax position. However, it is possible that, even in situations where the tax law is clear, the tax preparer still affects the compliance decision. The preparer's role in tax compliance, as described in previous

research (Klepper and Nagin, 1989; Hite and McGill, 1992; Tan, 1999) is the role of an enforcer of the tax law when the law is clear and an advocate for the taxpayer when ambiguity exists in the law. Book (2008), in a field study of taxpayers, tax preparers, and lenders, found that while tax preparers may help increase compliance by reducing computational errors and interpreting complex legal issues, preparers contribute to noncompliance as well. Preparers may misapply the law, misunderstand the law, or fail to obtain relevant facts from clients. While the impact of preparers in ambiguous tax situations has been investigated in numerous research studies, the failure of tax preparers to obtain complete and accurate information from their clients and its impact on compliance has received little attention. The current due diligence requirements of Circular 230 (and the related guidance) allow preparers to rely on taxpayer-provided information, without holding the preparer responsible for noncompliance (Morse, 2009). Therefore, there is an opportunity for preparers to take a "don't ask, don't tell" perspective regarding their client's disclosure of income.

According to an April 2012 GAO Report (White, 2012), approximately 60 percent of all tax returns filed are prepared by paid tax preparers and these preparers "play a critical role in answering taxpayers' questions and filing tax returns." As reported by Collins, Milliron & Toy (1992), in two separate national surveys (Yankelovich, Skelly, & White, Inc., 1984 and a 1988 IRS poll), the primary reason for using a tax preparer was fear of making a mistake or the desire for a correct return. The second most common objective cited for using a tax preparer is tax savings. Hence, tax preparers have a dual role - to encourage taxpayers to file complete and accurate returns (role of enforcer) and to assist in maximizing the taxpayer's after-tax income by interpreting the tax law in the most favorable position for the taxpayer (role of advisor). When

the taxpayer faces an issue with legal ambiguity, the advice given by tax professionals affects tax compliance because the tax professional is an advisor and advocate for the taxpayer.

Taxpayers may choose to use a preparer even when the law is clear and there is little complexity in preparing the return. Individuals often make decisions after consulting with and being influenced by others. Previous research in advice-taking indicates that individuals take, seek, or follow advice for several reasons – to enhance their representation of a decision problem (Yaniv, 2004), to build confidence in their decisions (Heath & Gonzalez, 1995), and to share responsibility (Harvey & Fisher, 1997). An individual uses a tax preparer to assist in filing a tax return. A large number of such individual taxpayers are not facing ambiguous tax situations. Additionally, self-employed taxpayers are, in many cases, not subject to third party income reporting. In cases where the tax law is clear, the communication between the preparer and the self-employed taxpayer may involve, among other items, communication of audit risk and the taxpayer's disclosure of total income. When discussing these items, the tax preparer's choice of communication, in the role as an enforcer of the tax law, may affect the compliance decision of the taxpayer.

Method

This study examines the research questions in an experimental setting. The independent variables are preparer enforcement communication, ethical orientation, and risk perception. The dependent variables are tax compliance rate (a continuous variable) and whether the participant complied 100% or was less than 100% compliant (a dichotomous variable). The experiment consists of a questionnaire, an income-earning task, and an income-reporting task. Each participant answers a questionnaire containing items regarding demographics, ethical orientation and risk perception. After completing the questionnaire, each participant completes a

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computerized multiplication task that determines income. This enables each participant to report his/her income and calculate the corresponding income tax.

The experiment initially uses a 1x2 between participants design with the participants randomly assigned to either the "low preparer enforcement" treatment group or the "high preparer enforcement" treatment group. Each participant is categorized according to risk perception and ethical orientation. Consequently, the final model is a 2x2x2 design with one experimental manipulation and two blocked variables. A participant's risk perception is measured by his/her score on the four items from the financial subscale of the DOSPERT instrument, while ethical orientation is measured by the Mach IV questionnaire. This scale is a well-validated measure of Machiavellianism and has been used extensively in business research (eg. Ghosh & Crain, 1995; McLean & Jones, 1992; Murphy, 2012). The dependent variable is measured two ways. For the ANOVA and ANCOVA, the dependent variable, tax compliance rate, is calculated as the ratio of the participant's income self-reported to the full amount of income earned. Additionally, the dependent variable is analyzed as an absolute compliance/absolute noncompliance variable for the chi square tests and logistic regression.

Purpose and Contributions of the Study

The purpose of this research is to examine the effects of the individual taxpayer's ethical orientation and risk perception on the tax compliance decision when a tax preparer communicates to the taxpayer audit risk and required income disclosure (the role of enforcer when the tax law is unambiguous). Results of this study indicate a significant main effect regarding the enforcement message of the tax preparer. Individuals receiving a high enforcement message are significantly more compliant than individuals receiving a low enforcement message. These findings, which have not been previously reported, contribute meaningfully to the

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understanding of the role of the tax preparer in the individual tax compliance decision. Prior research has indicated that both risk perception and ethics affect the compliance decision, but to the author's knowledge, there has been no study to date that includes the potential influence of the preparer's role as an enforcer of the tax law.

Additionally, this study improves upon Eisenhauer et al. (2011) by investigating the taxpayer's compliance decision using an income-earning task rather than an endowment. Moreover, this study aims to provide further understanding of how risk perception and ethical standards affect tax compliance as an effort to extend the existing compliance literature, specifically that of Ghosh and Crain (1995). This study improves upon the work of Ghosh and Crain (1995) by using a domain-specific scale for measuring risk perception. A significant interaction between the financial risk perception of the taxpayer and the taxpayer's ethical orientation is found in this study, implying that the impact of the ethical orientation of the taxpayer is different for individuals with high financial risk perception versus individuals with low financial risk perception. Based on this analysis, it can be concluded that tax compliance is not significantly different for individuals with high ethical reasoning versus low ethical reasoning, when the individual perceives risk to be low. However, when an individual perceives risk to be high, individuals with low ethical reasoning are significantly less compliant than individuals with high ethical reasoning. Information from this study may help policymakers and regulators in developing less costly and more effective means to increase individual tax compliance.

<div align="center">Organization of the Dissertation</div>

The remainder of this dissertation is organized as follows: Chapter II presents a detailed review of the literature relevant to this study. Chapter III includes the research hypotheses, the

experimental task, the methodology used to collect the data, and a detailed explanation of the variables included in the data analysis. Chapter IV presents the data analyses and results of the study. Finally, Chapter V discusses the results and limitations of the research, as well as provides ideas for future research.

II: LITERATURE REVIEW

Tax Compliance

In an IRS Research, Analysis and Statistics Working Paper (March 2012), Black et al. estimate the individual income tax underreporting gap for tax year 2006 to be $235 billion. The underreporting of income can stem from several causes: ambiguous tax language, intentional noncompliance, or errors in calculating income, deductions or the amount of tax owed. There is extant research regarding ambiguity - those situations in which neither the taxpayer nor the Internal Revenue Service can determine the proper tax treatment of certain income or deduction items. Ambiguity of the tax law provides an opportunity for underreporting. The underreporting may be an unintentional misinterpretation of the tax law, or the taxpayer may use the ambiguity to intentionally evade the tax system. Much of the research concerning tax ambiguity consists of surveys involving subjects answering scenario-type questions regarding ambiguous tax situations (Bobek & Hatfield, 2003), and there have been numerous studies on the role of tax preparers in interpreting ambiguous tax situations (Erard, 1993; Hite & McGill, 1992; Schmidt, 2001).

Research in the field of taxation regarding intentional noncompliance has progressed from modeling tax compliance as a simple form of gambling against the odds of being caught to more complicated models incorporating economic, social, and ethical factors. Early tax compliance studies used an "expected utility" model, first applied to tax research by Allingham

and Sandmo (1972).[1] That model assumes that individuals only pay taxes because of enforcement and punishment by the government and is based on the economics of crime approach developed by Becker (1968). Eisenhauer (2008, p. 46) states that in the Allingham and Sandmo model, "compliance has been attributed primarily, if not exclusively, to the expected penalty for evasion, its uncertainty, and the taxpayer's own aversion to risk." The model, therefore, fails to take into account non-economic factors influencing compliance. For example, with an audit rate of 1%, the Allingham and Sandmo model would predict most taxpayers to be noncompliant, since the actual audit rate is less than 1% in the United States. In reality, tax compliance is much higher than expected utility implies (Andreoni, Erard & Feinstein, 1998). Through the years, the Allingham-Sandmo model has been improved by incorporating the roles of other variables including (but not limited to) tax and penalty structure, morals, social dynamics and the use of tax preparers (Andreoni et al., 1998). While the inclusion of these variables has furthered our understanding of individual tax compliance, in many cases their inclusion has been insufficient to direct policy change (Hamm, 1995).

Other researchers have used prospect theory, developed by Kahneman and Tversky (1979), to explain compliance. Alm et al. (1992) suggest that compliance is greater than expected utility would predict because subjects seem to overestimate the probability of audit. The authors attribute this overweighting to taxpayers' using a non-linear transformation of probabilities, which is one of the principles of prospect theory[2]. More recently, Dhami and al-Nowaihi (2007) also found that prospect theory, rather than expected utility theory, provides a

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[1] For a detailed explanation of the Allingham and Sandmo (1972) model, see Pyle (1991).

[2] For a detailed explanation of prospect theory, see Kahneman and Tversky (1979).

better explanation of actual compliance rates. Additionally, prospect theory has been used in the compliance literature to investigate differences in compliance when taxpayers are in a refund due versus a tax owed position. White, Harrison and Harrell (1993) used prospect theory to explain the impact of the taxpayer's withholding position across low, medium and high detection rates and penalties. Results indicated that taxpayers in a tax due position are significantly more likely to be noncompliant than taxpayers who are in a refund due position. Yaniv (1999) also used prospect theory to analyze the role of payment position (refund due or tax owed) in the compliance decision and found that sufficiently high advance payments may lead to full compliance, but the relationship is dependent upon detection efforts and the taxpayer's overestimate of audit probabilities.

Eisenhauer (2006, 2008) developed an adaptation of the expected utility model, wherein deterrence is measured by both risk aversion and morality. The contribution of Eisenhauer's research was the development of a tax compliance model and measurement of the shadow price of morality, incorporating the Arrow-Pratt measure of relative risk aversion. Eisenhauer (2006) explains the shadow price of morality to be "the value that an individual places on his or her own adherence to ethical standards of conduct" (p. 437). In their 2006 experimental study, the shadow price of morality was measured to be roughly 15 percent (or 15 cents per dollar). Using time-series data on self-employed taxpayers, Eisenhauer (2008) again measured the shadow price of morality and found it to be 39%.

Existing tax compliance literature has extensively investigated numerous factors influencing the tax reporting decisions of individuals. Fischer et al. (1992) categorized factors influencing compliance into four broad categories: (1) demographic variables, (2) variables that proxy for noncompliance opportunity, (3) attitudinal variables, and (4) structural variables.

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These categories provide a good basis for discussing the variables found in individual tax compliance research.

The most common demographic variables investigated in tax compliance research are gender, age and marital status. This study includes the variables of gender and age, but marital status is not included in the current research because the majority of the participants in this study are unmarried. The results of studies on the relationship between gender and tax compliance have been mixed. Research by Yeaton and Stellenwerf (2008) provides an explanation for the mixed results by analyzing gender and educational level. For younger, less educated taxpayers, female taxpayers tend to be more compliant than male taxpayers; but, as educational level increases, gender is not a significant predictor of compliance. Eisenhauer et al. (2011) found a correlation between ethical preferences and gender, age, and marital status in a recent experimental tax compliance study. Taxpayers who were married, female and older were significantly more likely to exhibit strong ethical preferences than their counterparts. Several prior studies have also found age to have an indirect, positive effect on tax compliance (Jackson & Milliron, 1986; Roth, Scholz, & Witte, 1989; Wenzel, 2002).

Occupation and income source, income level, and educational level are some of the most common variables used as proxies for noncompliance opportunity. In order for a taxpayer to successfully evade taxes, an opportunity to underreport without detection must exist. Compliance is extremely high when a taxpayer's income is reported to the IRS by a third party (Kagan, 1989). Results in previous research consistently find that, when there is opportunity due to lack of third party reporting, noncompliance occurs to a greater extent (Hashimzade, Myles, Page & Rablen; 2014; Alm, Deskins, & McKee, 2009; Antonides & Robben, 1995; Smith, 1990). Several studies suggest that individuals self-select into occupations based on their

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intended compliance behavior (Hashimzade et al., 2014; Andreoni et al., 1998). In studies investigating the relationship between income level and tax compliance, the results have been mixed. Some have found that as income level rises, compliance decreases (Alm & Cronshaw, 1993; Clotfelter, 1983; Feinstein, 1991), while others have found the opposite effect (Dubin, Graetz, & Wilde, 1990; Kamdar, 1997). A direct, negative relationship has been found between educational level and tax compliance (Jackson & Milliron, 1986; Roth et al., 1989).

Common structural variables investigated in previous compliance literature include the marginal tax rate, the audit rate, and the associated penalties of noncompliance. Early research found evidence that increased audit rates and higher penalties increase the level of taxpayer compliance (Casey & Scholz, 1991; Dubin & Wilde, 1988; Friedland, 1982; Friedland, Maital, & Rutenberg, 1978; Witte & Woodbury, 1985). Alm et al. (1992), in a study examining income level, tax rate, penalty rate and audit rate, found that compliance increases with audit rate and decreases with tax rate. They did not find a strong relationship between tax compliance and penalty rate. Martinez-Vazquez and Rider (2005), using 1985 Taxpayer Compliance Measurement Program (TCMP) data, also found a negative relationship between tax rate and compliance.

Tax compliance research has evolved from simple models of expected utility and deterrence to various models including not only economic variables, but also demographic, structural and attitudinal variables. Methodologies for researching individual tax compliance include archival, longitudinal, field studies, surveys and experiments. Because the current study seeks to examine the impact on compliance by ethical orientation, taxpayer risk perception, and the preparer's enforcement role, the remainder of this review will be limited to those tax

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compliance studies involving measures of ethics and risk, as well as those studies examining the use of a tax preparer.

Ethics and Tax Compliance

Tax compliance can be explained in part by expected utility theory and deterrence theory, but these theories do not tell the entire story. Prior research suggests that ethical orientation and moral reasoning significantly impact tax compliance. Alm (1991) states that some taxpayers are compliant because they believe that cheating is wrong. Therefore, these taxpayers do not act purely on economic factors in their decision to comply, but on moral and social factors as well. Reckers et al. (1994) found that individuals with high ethical beliefs about tax compliance are more compliant, regardless of their tax position. A distinguishing mark of the Reckers et al. (1994) study is that ethical beliefs were measured specifically in the context of taxation. Wenzel (2005), in a longitudinal study, also found a significant negative relationship between tax ethics and tax evasion.

Other research in individual tax compliance has examined the effect of individual's general ethical orientations. In one such study, Ghosh and Crain (1995) investigated the relationship between tax compliance and ethical standards using the Mach IV scale (Christie and Geis, 1970) to measure ethics. The results of the study indicated that individuals with higher ethical standards are more compliant. Kaplan, Newberry and Reckers (1997) found that taxpayers who exhibit high moral reasoning report lower tax evasion intentions. They also determined that moral reasoning moderates the effectiveness of educational communications by the government. However, their results indicated that the communication regarding legal sanctions was only effective in lowering evasion for those individuals exhibiting low moral reasoning. Moral reasoning was measured using the Defining Issues Test (DIT). Trivedi,

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Shehata and Lynn (2003) found similar results. In a laboratory experiment with monetary incentives, taxpayer compliance was positively affected by the taxpayer's level of moral development, value orientation and risk aversion. Henderson and Kaplan (2005) further investigated the relationship between ethical orientation and tax compliance by creating a model that included general ethical beliefs as well as contextual ethical beliefs. They found that contextual ethical beliefs (ethical evaluation of others' compliance decisions) mediate the relationship between tax compliance and general ethical beliefs (the subject's own ethical orientation).

While the above mentioned studies extend the classic economic models based on opportunity to evade and penalty by including measures of ethical orientation and moral reasoning, a possible limitation is that they assume there is no relationship between the opportunity to evade and ethical beliefs. Blanthorne & Kaplan (2008) argue that taxpayer's ethical beliefs about evasion are shaped, in part, by the individual's opportunity to evade. This argument is grounded in prior ethics research (Thompson & Loewenstein, 1992) indicating that self-interest influences ethical beliefs. They postulate that the economic and ethical components of the compliance decision should not be treated as independent variables. Results from their study (using structural equation modeling) indicate that social norms, through ethical beliefs, have an indirect effect on evasion intention and behaviors. Self-employed individuals, especially those with cash income, have an opportunity to evade taxes due to lack of third party reporting. Morse, Karlinksy and Bankman (2009) found cash business tax evasion was attributed primarily to norms and opportunity.

Risk and Tax Compliance

In tax research, detection risk is the uncertainty of being audited and fined. Mixed results were found in the early research investigating the influence of detection risk and penalty on tax compliance. This was partly due to the use of inflated audit rates and sanctions in these studies. Alm et al. (1992) suggest that audit rates and penalty levels should be set at more realistic amounts to better simulate reality. One other possible explanation for the lack of consensus in the early research is that researchers focused on objective audit probabilities set by the researcher, rather than on the taxpayer's *perception* of detection risk (Carnes & Englebrecht, 1995). Sheffrin and Triest (1991) found that taxpayers who perceived higher probabilities of detection and penalty reported significantly less tax evasion than those taxpayers who perceived detection and penalty to be lower.

Schauer and Bajor (2007) state that "taxpayers' perceptions of their detection risk and the severity of the associated penalties vary by taxpayer, but these perceptions are much more important than real probabilities, for it is their perceptions to which they are reacting" (p. 22). Therefore, to increase compliance, one must understand perceived risk of audit and penalty rather than the actual rate of audit and penalty set by the researcher or the Internal Revenue Service. Research in other disciplines supports the importance of risk perception. In a management study, March and Shapira (1987) found that managers make a strong distinction between gambling (a game of odds that is uncontrollable) and risk taking (in which skill can reduce some of the uncertainty and risks can be managed). Risk-seeking decisions may be driven by the perception that the risk is manageable and not just a game of chance.

Several studies have found significant effects of risk preference and ethical orientations on the compliance decision and attempt to explain the interaction/moderation of these two

variables (Ghosh & Crain, 1995; Bosco & Mittone, 1997; Trivedi et al., 2003). Trivedi et al. (2003) suggest that risk preference affects compliance directly but also interacts with other independent variables (including ethics) in explaining compliance. Eisenhauer (2008) extended this line of research by distinguishing risk aversion from morality using econometric estimates. Results of that study suggest that the average level of relative risk aversion would need to be ten times larger than most plausible estimates in order to explain actual rates of income tax compliance in the absence of ethical standards. Eisenhauer et al. (2011) study risk aversion and ethical orientation using a two-stage model whereby risk aversion is measured in the first stage, eliminating the need for joint estimation of risk and ethics. In their study, risk is measured experimentally by asking the subjects to choose to invest in bonds (with a fixed rate of return) or in stocks (with an uncertain rate of return). Although their study contributes to the literature by measuring risk behavior (rather than risk attitude or risk perception), it is possible that the particular risk behavior measured may apply to the financial domain, but not to the tax compliance domain.

As discussed previously, risk perception is not homogeneous across domains and individuals perceive the level of risk to be different in different contexts. Therefore, measuring a specific risk behavior, in this case financial risk, may not be a proper measure for a taxpayer's behavior when faced with the risk of detection of an incorrect return. Nonetheless, as in other studies, Eisenhauer et al. (2011) found a positive correlation between risk aversion and high ethical preferences. Ghosh and Crain (1995) found a significant correlation between risk and ethics. The variables were tested for multicollinearity issues, and no problem was found. The authors suggest that this correlation makes sense intuitively. Taxpayers with lower ethical standards are risking the possibility of being caught (risk seeking).

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The Tax Preparer and Tax Compliance

A large body of research finds professionally prepared returns to be more noncompliant (Klepper, 1991; Hite & McGill, 1992; Erard, 1993). There is also limited experimental research regarding the tax preparer's impact on tax compliance. One explanation for this unexpected finding is the dual role that tax preparers must play – the role of the enforcer of the law and conversely, the role of the client advocate. Klepper and Nagin (1989), using IRS TCPM data, demonstrate this dual role of preparers. According to the data analyzed in their study, tax preparers contribute to compliance by clarifying ambiguous issues but also contribute to non-compliance by helping taxpayers take advantage of areas where the tax law is unclear. When the tax law is clear, as is the case for full income disclosure, tax preparers contribute to compliance by serving as enforcers of the tax law.

There is also research regarding taxpayers' demand for tax advice. Erard (1993) found taxpayers self-select between professionally prepared returns and self-prepared returns based on the source of income. Taxpayers with self-employment income (business, farm, rental and royalty) are more likely to use a paid preparer and also exhibit higher non-compliance. Beck, Davis and Jung (1996) also examined the effect of purchasing tax advice. In their study, they found that the demand for tax advice increases with the amount at risk. Additionally, tax advice and amount at risk had an interactive effect on tax reporting.

Numerous studies have examined the relationship between type of advice (aggressive or conservative) and individual tax compliance behavior in an ambiguous tax scenario. In a survey of U.S. taxpayers, Hite and McGill (1992) found that taxpayers tend to disagree with aggressive advice and agree with conservative advice. Tan (1999), using a survey similar to that of Hite and McGill (1992), found comparable results for conservative advice. Subjects agreed more with

conservative advice given by tax practitioners, but also agreed less strongly with aggressive advice. Schmidt (2001) extended the previous studies by including prepayment position and preparer type (CPA versus non-CPA) in the study. Results indicated that taxpayers are more likely to agree with aggressive advice when the advice is given by a CPA and when the taxpayer is in a balance due position.

It is possible that tax preparers play a far greater role in the tax compliance decision than research indicates. Although prior research has focused on tax preparer "advice" in ambiguous tax scenarios, there is a near complete lack of experimental research investigating the effect of the preparer on compliance when there isn't tax ambiguity. Yet, many taxpayers still choose to use a preparer when their tax situation is clear. Do preparers effectively serve their role as enforcers of the "clear" tax law when communicating with their self-employed clients? Morse (2009) points out that the "gatekeeper" regulation by the government (in the form of raising return filing standards and disclosure requirements) has little relevance to the issue of *unambiguous* tax situations.

The existing due diligence requirements of Circular 230 allow preparers to rely on taxpayer-provided information unless the preparer has reason to believe that the information appears to be incomplete or incorrect. In a recent field study consisting of nearly 275 interviews with cash business owners, bankers, and tax preparers, Morse et al. (2009) discovered that many taxpayers and their tax preparers have a "tacit understanding that they will not discuss cash income, so as to permit the tax preparer to avoid the uncomfortable question of whether to participate in what is plainly an evasion scheme." They refer to this as a "don't ask, don't tell" behavior and note that most preparers interviewed fell into this type of behavior.

Summary

As Black et. al (2012) reported, nearly two-thirds of the net tax gap is associated with underreporting of individual income. Moreover, sixty three percent of the underreporting on individual returns stems from underreporting of business and self-employment income. There is a need for continued research to investigate the determinants of individual tax noncompliance, specifically related to income not reported to the tax authority by third parties.

This current study attempts to add to the tax compliance literature by investigating the role of the tax preparer in situations where income is not reported to a third party and the tax law is unambiguous, yet noncompliance still occurs. Prior research has identified a relationship between the individual tax compliance decision and both risk perception and ethics. Additionally, numerous studies have referred to the preparer's role in tax compliance as a position of an enforcer of the tax law when the law is unambiguous and as an advocate for the taxpayer when ambiguity exists in the law. However, nearly all research has focused on the tax preparer's role as an advocate in ambiguous situations. The role of enforcer and how the tax preparer communicates this enforcement has largely been ignored.

Therefore, the current study contributes to the existing individual tax compliance literature by investigating this enforcement role of the tax preparer while also measuring the taxpayer's ethical orientation and risk perception. The tax preparer's choice of communication (high enforcement communication or low enforcement commnunication) may directly affect the compliance decision. Additionally, when the tax preparer assumes an enforcement role, his or her influence may help to overcome a taxpayer's tendency towards noncompliance due to the taxpayer's ethical orientation and risk perception.

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This study also adds to the tax compliance literature by investigating the influence of tax preparers in unambiguous tax situations in an *experimental* setting. In an experimental setting, accurate compliance rates can be collected and each variable that affects compliance can be identified and controlled for in the experimental design (Alm et al., 2009). Additionally, this study improves upon previous studies by incorporating an income-earning task, rather than participant's receiving an endowment or being given a hypothetical tax scenario. By having participants earn income, the study provides a more realistic representation of self-employment income. Finally, this study improves upon current studies measuring risk by incorporating a domain specific risk measurement scale. Results from this study may not only improve the existing individual tax compliance literature, but also can potentially assist policymakers and regulators in developing more effective means to increase individual tax compliance.

III: METHOD

The purpose of this chapter is to discuss the research hypotheses, explain the experimental procedures and provide information regarding the development of the dependent and independent variables. This study utilizes an experiment to examine the impact of three independent variables (the preparer's enforcement role, the taxpayer's ethical orientation, and the taxpayer's financial risk perception) on the dependent variable - taxpayer compliance. The experiment initially uses a 1x2 between subjects design with the participants randomly assigned to either the "high preparer enforcement" treatment group or the "low preparer enforcement" treatment group. The participants are categorized based on their risk perception and ethical orientation. Machiavellianism is used as a proxy for ethical orientation. The participant's financial risk perception score on the DOSPERT instrument measures risk perception. Consequently, the final model is a 2x2x2 design with one experimental manipulation and two blocked variables.

Two measures of the dependent variable are used in the study. First, the dependent variable, taxpayer compliance rate, is calculated as a ratio of the participant's income reported to the participant's actual income from completing the multiplication task. Additionally, tax compliance is measured as a dichotomous variable, grouped by participants who reported the full amount of income earned versus participants who reported any amount less than 100% of the amount of income earned.

Research Hypotheses

It is possible that tax preparers play a far greater role in the tax compliance decision than research indicates. Although prior research has focused on tax preparer "advice" in ambiguous tax scenarios, there is a dearth of experimental research investigating the effect of the preparer on compliance when there is no tax ambiguity. Yet, many taxpayers still choose to use a preparer when their tax situation is unambiguous. Why? Many self-employed individuals choose to use tax preparers because, although the tax law may be clear, the taxpayer needs assistance in understanding the tax forms required by the government. When an individual has business income, rather than simply receiving a W2, more information is required by the tax return. This can be an overwhelming task for individuals with little experience in accounting and bookkeeping.

Individuals often make decisions after consulting with and being influenced by others. In the real world, few decisions are made in complete isolation. Harvey and Fisher (1997) model advice taking into three components: accepting help, improving judgment, and sharing responsibility. It is possible that, even in situations in which the tax law is unambiguous, some taxpayers use a tax preparer not only to receive help and improve judgment but to also "share responsibility" of the tax return filing with the tax preparer. According to Yaniv (2004), "people engage in interactive social and cognitive processes of giving and taking advice to enhance their representation of a decision problem." Therefore, another possible explanation is that individuals seek advice from advisors in order to build confidence in their decisions (Heath & Gonzalez, 1995) or simply to have a "sounding board."

Consequently, the compliance decision of the taxpayer using a preparer may be affected by the tax preparer's communication to the taxpayer. Perceptions of risk are not formed in total

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isolation and tax preparers communicate audit risk to their clients and have their own perceptions of risk as well. The preparer's role in tax compliance, as described in previous research (Klepper and Nagin, 1989; Hite and McGill, 1992; Tan, 1999) is the role of an enforcer of the tax law when the law is unambiguous and as an advocate for the taxpayer when the law is ambiguous. When the tax preparer communicates audit risk and required income disclosure to the taxpayer in those situations where the law is unambiguous, the preparer's enforcement role may be at a low level (There is only a 2% chance that your return will be audited by the IRS) or at a high level (While there is only a 2% chance your return will be audited by the IRS, you are expected to report all income earned). According to van der Pligt and Eiser (1984), making certain characteristics of an issue more salient can influence attitudes and decisions of individuals.

When tax preparers assume an enforcement role, their influence will likely help to overcome taxpayers propensity towards noncompliance due to the influences of the taxpayer's ethical orientation and risk perception. It is possible that the relationship between risk perception and reporting compliance will be moderated by the preparer's role as an enforcer such that tax compliance is increased by the high preparer enforcement treatment and tax compliance is decreased by the low preparer enforcement treatment. While ethical orientation and risk perception have been investigated in the tax literature, to the author's knowledge, there has not been a study to date that simultaneously investigates these variables and the role of the tax preparer as an enforcer of the law. The above discussion provides a basis for the following hypothesis:

> *H1*: *There is a positive relationship between the strength of the enforcement message of*
>
> *the preparer and tax compliance: a high preparer enforcement message is associated*

with a higher rate of tax compliance, and a low preparer enforcement message is

associated with a lower rate of tax compliance.

Compliance literature has well documented that ethics plays a part in the tax compliance decision and that taxpayers do not base their compliance decisions solely on economic factors. Individuals with high ethical standards are more compliant (Reckers et al., 1994; Ghosh & Crain, 1995; Kaplan et al., 1997; Henderson & Kaplan, 2005; Wenzel, 2005). This yields the following hypothesis:

H2: There is a positive relationship between ethical orientation and tax compliance:

individuals with higher ethical reasoning tend to have higher rates of compliance, and

individuals with lower ethical reasoning tend to have lower rates of compliance.

Previous research indicates that focusing on the taxpayer's perception of detection risk, rather than objective audit probabilities set by the researcher, may provide a better explanation of individual tax compliance (Sheffrin & Triest, 1991; Carnes & Englebrecht, 1995; Schauer & Bajor, 2007). Therefore, to increase compliance, one must understand perceived audit risk and penalty rather than the actual rate of audit and penalty set by the researcher or tax authority. In this study, the audit probability is set at 2% for all participants and is not manipulated. This probability percentage was chosen because it represents a reasonable estimate of the number of self-employed individual taxpayers audited.

Additionally, individuals are sometimes inconsistent in their attitudes towards risk across different domains and in different situations (Schoemaker, 1990) and individual differences in behavior may be attributable to perceived risk rather than risk attitude or risk behavior (Weber & Hsee, 1998). Eisenhauer et al. (2011) measured risk experimentally by asking the subjects to choose to invest in bonds (with a fixed rate of return) or in stocks (with an uncertain rate of

return). Although the study contributed to the literature by measuring risk behavior (rather than risk attitude or risk perception), it is possible that the risk behavior measured may not apply to the tax compliance domain. If risk perception is not homogeneous across domains and individuals perceive the level of risk to be different in different contexts, measuring a specific risk behavior, in this case financial risk, may not be a proper measure for a taxpayer's behavior when faced with the risk of detection of an incorrect return. Weber, Blais and Betz (2002) suggest a scale that tests for differences across domains. They developed the domain specific risk attitude scale (DOSPERT), a 40-item scale measuring risk behavior, risk perception and expected benefits across five domains. The five domains are ethical, financial, health/safety, social, and recreational domains. This scale was subsequently refined and updated to a 30-item scale to better assess adult populations and different cultures (Blais and Weber, 2006) and 20 of the 30 items are used to measure risk perception in this study. Weber et al. (2002) state the following:

> If risk taking is solely assessed for predictive purposes (e.g., to predict how a person or group will resolve risky decisions in the future), it may suffice to observe their current behavior in that domain and to describe such choices (in a shorthand fashion) as risk seeking or risk-averse in the expected-utility sense. For prediction purposes, it is immaterial whether observed behavior is the result of beliefs about the riskiness of the choice situation or attitudes towards (perceived) risk. This distinction becomes important, however, when one assesses people's risk-taking with the goal of changing their risk-taking behavior. Intervention requires knowledge of the processes underlying the behavior. (p. 267).

This discussion provides a basis for the following hypothesis:

> **H3**: *There is a positive relationship between risk perception and tax compliance: individuals with higher risk perception tend to have higher rates of tax compliance, and individuals with lower risk perception tend to have lower rates of tax compliance.*

Instrument Development

Task

Using laboratory experiments has become a widely accepted methodology in tax compliance research. Laboratory experiments have several advantages over other methods. First, According to Cadsby, Maynes and Trivedi (2006), the language used in past tax experiments (those experiments in which a hypothetical tax scenario was provided and subjects were then asked to disclose the amount that he or she would include in income or take as a deduction) does not demand compliance as is demanded by a real-world taxing authority. The subject is told that they must pay tax at a stated rate and is given an audit and penalty rate. While some may feel an obligation to pay tax, other subjects may focus on the permission granted by the instructions to disclose less than the full amount of income. This type of task can be viewed as an invitation to gamble, unlike an actual tax authority that demands full compliance. Furthermore, those types of experiments do not measure actual behavior. Laboratory experiments provide the researcher with a measurement of actual behavior rather than measuring the participant's *intention*. Therefore, in the current study, participants' actual tax-paying behavior will be measured using an experimental setting in which participants will receive income and be asked to pay a portion of that income as a tax (described as a participation fee).

This study uses abstract non-tax language. In recent years, primarily in economics studies, experiments similar to the current study have utilized non-tax language to investigate individual income tax compliance (Cadsby et al., 2006; Eisenhauer et al., 2011). According to Alm et al. (1992), a comparison of the use of tax language with neutral language finds no significant differences in compliance rates. They concluded that the failure of tax language to affect compliance behavior suggests that using neutral language does not create "missing" information in the instructions. In tax compliance studies, because of social desirability response bias, an individual may not report their actual intention out of fear of its social impact. Therefore, neutral language is used in this study to maintain experimental control over the occurrence of results that could be attributed to social desirability response bias.

In the current study, the participant earns income by correctly solving a series of multiplication problems. The participant's task also includes a decision whether or not to comply with instructions given by an authority figure, similar to the decision that a taxpayer makes.

Questionnaire

The questionnaire portion of the experiment contains demographic questions as well as the Mach IV scale and items from all five domains of the DOSPERT instrument. The Mach IV measures Machiavellianism, which is a proxy for the independent variable of ethical orientation.

The Domain-specific Risk-attitude scale (DOSPERT) instrument is used to provide a measurement of risk perception. The DOSPERT, developed by Blais and Weber (2006), improves upon other risk instruments. The instrument measures risk perception across five different domains and produces a risk perception score for each domain. The five domains are ethical, financial, health/safety, social, and recreational domains. The financial domain can be

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further divided into the investing domain and the gambling domain. In this study, the DOSPERT scale is used to measure the risk perception variable on all five domains, but utilizes only 20 of the 30 specific statements contained in the instrument.[3] Use of this scale improves upon the risk measurement of Ghosh and Crain (1995), where the Choice-Dilemma Questionnaire (Kogan & Wallach, 1964) was administered. The Choice-Dilemma Questionnaire produces a composite score for several domains rather than a score for each different domain and measures risk attitude. As discussed previously, risk perception is a more relevant measurement variable. Inclusion of the DOSPERT instrument also improves upon the Eisenhauer et al. (2011) study by measuring perceived risk on five different domains, rather than strictly measuring risk behavior on only the financial domain.

The Mach IV scale measures Machiavellianism, which is used as a proxy for an individual's ethical orientation. Christie and Geis (1970) define Machiavellianism as "a process by which the manipulator gets more of some kind of reward than he would have gotten without manipulating, while someone else gets less, at least within the immediate context." The Mach IV scale, developed in 1970, is a 20-item scale originally developed to measure political personality orientation of leaders in organizations (Reimers & Barbuto, 2002). Participants respond to the 20 items using a 7-point Likert scale, with "agree strongly" scored as 7 and "disagree strongly" scored as 1. This scale is a well-validated measure of Machiavellianism and has been used extensively in business research (Ghosh & Crain, 1995; McLean & Jones, 1992;

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[3] For this study, ten of the items of the DOSPERT scale were removed after pre-testing. These items related to topics that were either irrelevant to the participants or represented topics that were sensitive to the participants. See Appendix A for the full DOSPERT scale including the items not included in this study.

Murphy, 2012). The Mach IV scale contains 10 statements phrased in a high Machiavellian direction and 10 statements phrased in a low Machiavellian direction. An example of a "high Mach" statement is "It is wise to flatter important people." An example of a "low Mach" statement is "One should take action only when sure it is morally right."

Several demographic variables are included in the questionnaire. Prior studies in individual income tax compliance have found correlations between tax compliance and participants' gender, age, educational level, and marital status. It is a common finding in tax compliance research that females are more compliant than males (Chung and Trivedi, 2003; Kirchler & Maciejovsky, 2001; Scholz & Pinney, 1995; Yeaton & Stellenwerf, 2008). The age of the taxpayer may also provide an explanation for income tax compliance. Several prior studies have found age to have an indirect, positive effect on compliance (Jackson & Milliron, 1986; Roth et al., 1989; Wenzel, 2002). Yeaton and Stellenwerf (2008) found that, for younger, less educated taxpayers, female taxpayers tend to be more compliant than male taxpayers; but, as educational level increases, gender is not a significant predictor of compliance. Eisenhauer et al. (2011) found that married taxpayers display stronger ethical preferences, regarding reporting taxable income, than their counterparts. In light of the previous research, it is important to include the participant's gender, age, and educational level as variables in the questionnaire and the analysis. Marital status is not included in this study because the participants in this study are mostly undergraduate business and accounting students, the majority of whom are unmarried.

<div align="center">Sample</div>

Participants were recruited from undergraduate business and accounting courses at the University of Mississippi. The use of students as surrogates for taxpayers is justified by previous research. According to an analysis of accounting literature by Ashton and Kramer (1980),

students and nonstudents make similar decisions in studies involving decision-making. Hite (1988) tests for correlations between government reported statistics and taxpayer's self-reported compliance rates on hypothetical reporting decisions. She finds that the hypothetical responses of students are significantly correlated to actual government compliance figures. White et al. (1993) further investigated the use of students as surrogates for taxpayers in a study testing the impact of tax withholding on taxpayer compliance. Results of their study indicate that the tax compliance behavior of undergraduate students is similar to that of adult taxpayers, although adult taxpayers are more likely to claim an unsupported deduction than are undergraduate business students. In a more recent study, Alm, Bloomquist and McKee (2015) compared the tax compliance decision-making of students in laboratory experiments to those decisions made by taxpayers (using a special data set from the U.S. Internal Revenue Service) and also to the decisions made by nonstudents in the laboratory. Their findings indicate that data from the laboratory is similar to data in the field and that students and nonstudents exhibit similar decision-making.

Potential participants were given the opportunity to volunteer for the study and were told that they would receive compensation for participation in the study. One hundred and seventy accounting and business students participated in the research sessions. Students were invited by their professors to participate in the study and were told to send an email to the researcher if interested in participating. Those students who emailed the researcher received a response indicating the date and time to arrive at the lab to participate in the study. Of the 170 participants, one participant's data were eliminated from the analysis, because that participant reported a higher income than was actually earned and paid a higher tax than was actually required, which indicates that the participant did not fully understand the instructions. This left a

sample of n=169 participants. Table 3-1 provides descriptive statistics of the participants in the

study.

Table 3-1. Summary of Participant Demographics (N = 169)			
	Mean	Std Deviation	Gender/Education Lvl %
Age	21.25	1.68	
Gender			
Male			50.90%
Female			49.10%
Education Level			
Lower Undergraduate			24.30%
Upper Undergraduate			73.40%
Graduate			2.40%

Implementation

Data Collection

Participants were given a specific time to arrive at the lab to complete the study. As the

participants arrived, they were given an envelope labeled with an identification number. The

envelope contained an instruction card and earnings form to be used in the last phase of the

experiment. After receiving the ID envelope, each participant was taken to the testing room one

by one in the order of arrival, to ensure a quiet testing environment. Additionally, this system

allowed the lab assistant to verify that the participant was seated and that the program on the

participant's screen functioned properly. Once seated, the participants entered their

identification numbers on the screen and received instructions explaining that they were

participating in a study of behavior regarding decision-making under uncertainty. The

experiment consisted of three phases.

After reading the instructions, phase one of the experiment began. This portion contained the Mach IV scale (20 items), 20 items from the risk perception scale of the DOSPERT instrument, and five demographic questions (described in detail in the next section). The participants were given 15 minutes to complete the questionnaire. After the participant had answered all 45 questions and 15 minutes had passed, the second phase of the experiment began. Participants were given instructions (on screen) regarding the multiplication task. The multiplication task consisted of fifteen (15) multiplication problems. Each participant was given 12 minutes to hand-calculate the multiplication task. Participants were compensated $2 for every correct solution they were able to provide in the 12 minute time period. Participants were provided with a scratch piece of paper and a pencil. At the end of the 12-minute period, the computer screen provided the participant with a score. The score is the number of correct solutions entered during the task. At this point, the instructions on the screen prompted the participant to raise his or her hand to signal to the lab assistant that he/she had completed the task. The on-screen instructions also advised the participant to remove the "instruction card" from his/her envelope and to begin reading the instructions for the next phase of the experiment. The lab assistant then came to the participant's computer, wrote down the compensation owed to the participant, and retrieved the participant's compensation from the pay desk.

Total compensation consisted of $2 times the number of correct multiplication solutions. Therefore, each participant could potentially earn between $0 and $30 during the second phase of the experiment. The multiplication task score of each participant was reported to the server located at the pay desk, so that the lab assistant was able to verify (by identification number) the number of problems answered correctly and correctly calculate each participant's income. This actual earnings number serves as the denominator when calculating the tax compliance rate,

which is one of the dependent variable measures in this study.

Table 3-2 provides a summary of the performance of participants on the income-earning task. The experiment consisted of four separate research sessions. The research sessions took place on May 20, May 29, June 29, and September 11 of 2014 in the Mississippi Experimental Research Laboratory, a computerized research facility located in Conner Hall on the University of Mississippi campus. A pilot session took place on April 28th to test the instrument and experimental procedures.

Table 3-2. Mean Compensation by Session

Session	n	Mean ($)	Std Dev ($)
Session 1	38	20.58	7.217
Session 2	67	19.82	8.118
Session 3	23	18.96	8.155
Session 4	41	22.83	5.899
Overall	169	20.60	7.495

After the lab assistant had compensated the participant, the participant was escorted from the lab to one of three "tax reporting" rooms to begin phase three of the experiment. Phase three of the experiment was the only manipulation in this study and involved the tax preparer's communication of both audit risk and income disclosure to the taxpayer. Participants were randomly assigned to one of the three "tax reporting" rooms. In each room, the "tax preparer" assisted participants whose instructions contained the "high preparer enforcement message" as well as participants whose instructions contained the "low preparer enforcement message." Multiple reporting rooms were used to enable all participants to complete the entire process in a timely manner and to eliminate a backup of participants waiting to report their earnings. In each "tax reporting" room, one of three "tax preparers" was seated at a desk with a chair in front of the desk intended for the participant. After the participant was seated, the tax preparer asked the

participant to remove his/her instruction card from the envelope and the tax preparer read the instructions aloud as the participant read along silently. The instruction card (inside the participant's ID envelope) contained either the "high preparer enforcement message" or the "low preparer enforcement message." Participants whose ID ended in an even number had instruction cards containing the "high preparer enforcement message" while participants whose ID ended in an odd number had instruction cards containing the "low preparer enforcement message." After the instructions were read aloud, the participant reported earnings by writing a number on the earnings form and the participation fee was calculated. At that time, the participant gave the amount of money (the calculated fee) to the preparer. The preparer placed this fee and the earnings form in the brown envelope and handed the envelope back to the participant. The participant then took the envelope and dropped it in a box outside of the door of the room. In the instructions to the earnings form, the participants received information regarding the potential for an audit of their reported earnings. The instructions explained that there was a chance that some of the forms would be checked and that if checked and found to be noncompliant, the participant would be required to pay the shortfall plus a penalty equal to 1.5 times the shortfall.

The random audit selection was made by use of a bingo cage containing forty nine white balls and one red ball. The participant spun the cage. If a white ball was dispensed, the participant's earning form was not checked and the participant was allowed to leave the experiment. If the red ball was dispensed, the participant was audited. An escort took the participant to a separate room where the earnings form was checked against the earnings recorded by the computer. If the reported earnings were less than actual earnings, the participant would be required to pay the shortfall plus a penalty equal to 1.5 times the shortfall. Five participants were actually audited and all audited participants were found to be compliant

(although this study does not attempt to use audit rate as a predictive factor of tax reporting compliance).

Variable Descriptions

This research investigates the effect on tax compliance of three independent variables. The first independent variable in the analyses for hypotheses H1 through H3 is the preparer enforcement communication (PFORCE). Participants are randomly assigned to either the high preparer enforcement treatment or the low preparer enforcement treatment. When the tax preparer communicates audit risk and required income disclosure to the taxpayer in those situations where the law is unambiguous, the preparer's enforcement role may be at a high level. An example of a high enforcement message is "While there is only a 2% chance your return will be audited by the IRS, you are expected to report all income earned." However, the tax preparer could give a low enforcement message. For example, if the tax preparer said, "There is only a 2% chance that your return will be audited by the IRS," this would be considered a low enforcement message. Eighty-seven participants received the high enforcement message and 82 participants received the low enforcement message. It is important to note that this study does not attempt to explain the rationale for the tax preparer's *choice* of high or low enforcement communication. Rather, this study examines the effect of communication type on the individual taxpayer compliance decision.

The ethical orientation (ETHICS) of the taxpayer is also included as an independent variable in this study. The 20-item Mach IV instrument measures Machiavellianism tendencies and serves as a proxy for ethical orientation. Each item of the Mach IV instrument produces a score from 1 to 5; therefore, each participant has a total score from 20 to 100. Ten of the 20 items are reverse coded (See Appendix A for the specific coding required). The ETHICS

variable was computed by adding all 20-item scores together. High and low ethical orientation

groups were created by dividing the ETHICS score at the median. Scores at or below the median

were labeled "high ethical reasoning" and scores above the median were labeled "low ethical

reasoning." Eighty-seven participants scored at or below the median (high ethical reasoning) and

82 participants scored above the median (low ethical reasoning). Table 3-3 provides the

descriptive statistics for the ETHICS variable prior to dividing the variable into two groups.

The third independent variable is the financial risk perception (PER_RISK) of the

participant. The participants completed 20 risk perception items in the questionnaire. The items

were taken from the domain specific risk attitude scale (DOSPERT) developed by Weber, Blais

and Betz (2002). The scale measures risk perception on five domains: ethical, financial,

health/safety, social, and recreational domains. The measurement properties of the DOSPERT

scale have been tested in other fields; however, the scale has not previously been used in a tax

compliance study. The PER_RISK variable is the sum of the four financial items added

together. Each of the financial items produces a score from 1 to 7; therefore, each participant has

a total score from 4 to 28. This variable was then divided into two groups by splitting the

participants' scores at the median into low and high categories. Scores at or below the median

were labeled "low risk perception" and scores above the median were labeled "high risk

perception." Ninety-six participants scored at or below the median (low risk perception) and 73

participants scored above the median (high risk perception). Table 3-3 provides the descriptive

statistics for the PER_RISK variable prior to dividing the variable into two groups.

Table 3-3. Independent Variable Descriptive Statistics

	n	Min	Max	Mean	Std. Dev
ETHICS	169	42	77	59.4852	6.04360
PER_RISK	169	7	28	18.7160	3.66317

Data collected also includes items regarding gender, age, educational level and compensation earned. Prior research has shown that gender, age, and educational level are all indicators of a taxpayer's decision to comply with U.S. tax laws. The gender variable (GENDER) is dummy coded as male "0" and female "1." Educational level (EDLVL) is a categorical variable and is divided into three groups: lower undergraduate (freshmen and sophomores), upper undergraduate (juniors and seniors), and graduate (post undergraduate). The participant's age serves as the measurement for the age (AGE) variable. Additionally, the amount of compensation earned by the participant (COMP) is included in the analysis as a control variable. These four variables serve as control variables in the analyses presented in Chapter IV.

Table 3-4. Variable Descriptions

COMPLY	=	The ratio of the income self-reported to the total true income earned
ABSCOMPLY	=	Grouped as either "100% compliant" or "less than 100% compliant" in reporting true income
PFORCE	=	The message given by the tax preparer – either a high preparer enforcement message or a low preparer enforcement message
PER_RISK	=	Score on the four items from the financial domain of the DOSPERT scale, split into low risk perception and high risk perception groups
ETHICS	=	Score on the Mach IV instrument and split into high ethical orientation and low ethical orientation groups
GENDER	=	Whether participant is male/female
AGE	=	Age of the participant
EDLVL	=	Education level of the participant – either lower undergraduate, upper undergraduate or graduate
COMP	=	Actual dollar amount of compensation earned by participant

Two measures of the dependent variable are used in this study. First, the dependent variable (COMPLY) is the ratio of the income self-reported to the total true income earned from completing the multiplication task. Self-reported income, rather than tax paid on reported income, is used as the numerator in the compliance ratio because the participants were only able to "cheat" on the amount of income that they disclosed on the earnings form. While the

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researcher had the ability to track the income earned through the electronic data gathering

process, the tax preparer did not have a record of the actual income earned by the participant.

Once the participant disclosed income, the tax required on the amount of self-reported income

was placed in the envelope in the presence of the preparer. This variable serves as the dependent

variable in the statistical tests using ANOVA and ANCOVA. The overall mean for the

compliance variable for the 169 participants was 0.841 (84.1%) with a standard deviation of

0.318.
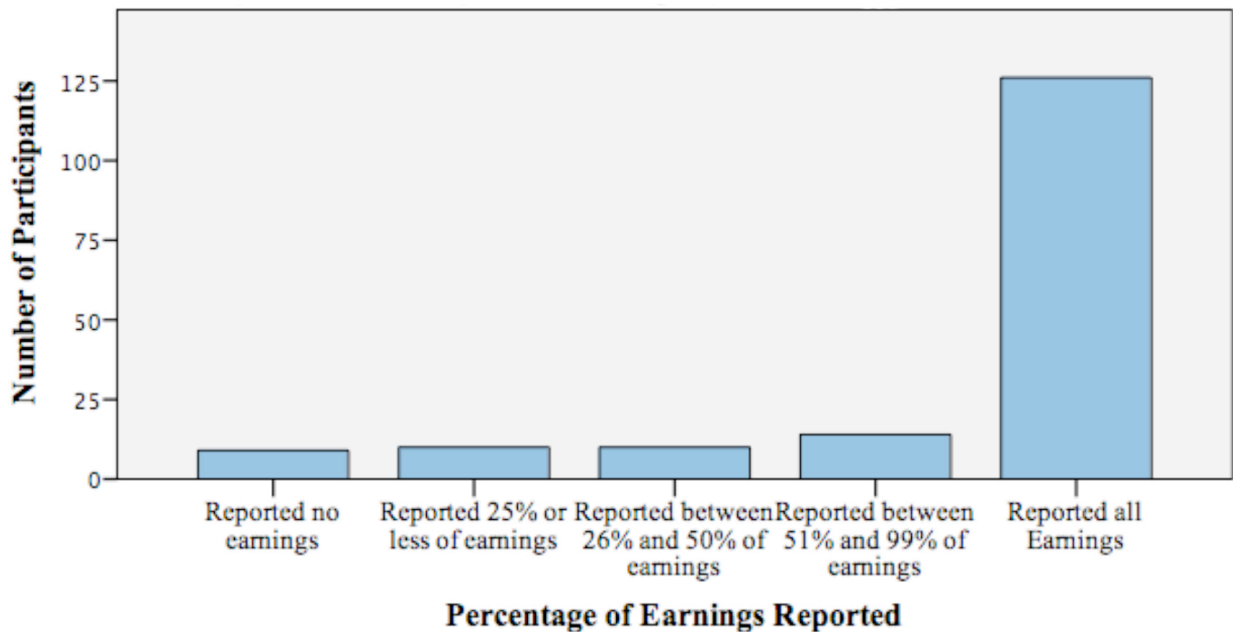
Figure 3-1. Self-Reported Earnings by Percentage Reported

Figure 3-1 displays self-reported earnings by the percentage of earnings reported in

relation to total earnings. This graph visually reveals that the data are bimodal, meaning that

most participants in the study were either fully compliant or fully non-compliant (the compliance

data are clustered at the tails). Therefore, an additional dependent variable is measured to analyze absolute tax compliance. For this variable (ABSCOMPLY), the data is separated into two groups: (1) participants who reported the full amount of income earned, and (2) participants who reported any amount less than 100% of the amount of income earned. This variable serves as the dependent variable in the Chi Square tests and logistic regression. Overall, 126 of the 169 (or 74.6%) participants were fully compliant. A total of 43 of the 169 (25.4%) were not compliant. Table 3-4 provides a summary of the variables discussed above.

Summary

This chapter presented research beneficial in developing three tax compliance hypotheses. These hypotheses were developed to test the effects of the tax preparer's enforcement role, taxpayer ethical orientation, and taxpayer risk perception on individual income tax compliance. The instrument development and task are also discussed extensively. Lastly, this chapter includes a detailed section explaining the variables in the study and provides a brief discussion of the statistical analyses used to test the data. Chapter IV presents the detailed analyses, including analyses of variance, a three-way analysis of covariance, chi square goodness of fit tests and a logistic regression used to examine the relationship between tax compliance and the independent variables.

IV. DATA ANALYSIS

The purpose of this chapter is to describe the data analysis procedures and to present the results of the research. The chapter provides descriptive and univariate analyses of the data. Additionaly, this chapter includes the results of factorial ANCOVA and logistic regression used to analyze the interaction effects of the independent variables. For reference, the three research hypotheses are restated here:

> *H1: There is a positive relationship between the strength of the enforcement message of the preparer and tax compliance: a high preparer enforcement message is associated with a higher rate of tax compliance, and a low preparer enforcement message is associated with a lower rate of tax compliance.*

> *H2: There is a positive relationship between ethical orientation and tax compliance: individuals with higher ethical reasoning tend to have higher rates of tax compliance, and individuals with lower ethical reasoning tend to have lower rates of tax compliance.*

> *H3: There is a positive relationship between risk perception and tax compliance: individuals with higher risk percecption tend to have higher rates of tax compliance, and individuals with lower risk perception tend to have lower rates of tax compliance.*

Variables, Measurements, and Sample

Hypotheses H1 through H3 are tested by ANOVA (tax compliance rate) and chi square (absolute tax compliance). An alpha level of .05 is used for all statistical tests in this study. One-sided hypotheses are stated and tested for a significant relationship between tax compliance (rate and absolute) and a high preparer enforcement message (H1), high ethical reasoning of the taxpayer (H2), and high risk perception of the taxpayer (H3). Additionally, ANCOVA and logistic regression are used to evaluate possible interaction effects between the independent variables. No hypotheses have been made regarding interactions between the independent variables, therefore the interactions use two-tailed significance value.

Table 4-1. Summary Description of Dependent, Independent and Control variables

COMPLY	=	The ratio of the income self-reported to the total true income earned
ABSCOMPLY	=	Coded 1 for 100% compliant and 0 for less than 100% compliant
PFORCE	=	Coded 1 for high preparer enforcement and 2 for low preparer enforcement
PER_RISK	=	Coded 1 for low risk perception and 2 for high risk perception
ETHICS	=	Coded 1 for high ethical orientation and 2 for low ethical orientation
GENDER	=	Coded 1 for female; 0 for male
AGE	=	2014 – Birth Year
EDLVL	=	Coded 1 for Lower Undergraduate; 2 for Upper Undergraduate and 3 for Graduate
COMP	=	Actual dollar amount of compensation earned by participant

Table 4-1 provides a summary of the dependent, independent and control variables included in the analyses. Two measures of the dependent variable are used in the study. First, the dependent variable (COMPLY) is the ratio of the income self-reported to the total true income earned from completing the multiplication task. This variable serves as the dependent variable in the statistical tests using ANOVA and ANCOVA. Additionally, tax compliance is measured as a dichotomous variable. ABSCOMPLY is coded as "1" for participants who

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reported the full amount of income earned and "0" for participants who reported any amount less than 100% of the amount of income earned. This variable serves as the dependent variable in the chi square tests and logistic regression. Overall, 126 of the 169 (or 74.6%) participants were fully compliant. A total of 43 of the 169 (25.4%) were not compliant.

The analyses include three independent variables. The first independent variable is PFORCE. This variable represents the enforcement message of the preparer and was manipulated at two levels – high preparer enforcement and low preparer enforcement. Recall from the previous section that each participant was escorted to one of three "tax reporting" rooms. In each "tax reporting" room, a tax preparer read the preparer message aloud as the participant read along silently. The tax preparer ensured that the participant understood the instructions and then directed the participant to report his or her earnings and participation fee on the earnings form and place the earnings form and fee in the envelope. Participants whose ID ended in an even number had instruction cards containing the "high preparer enforcement message" while participants whose ID ended in an odd number had instruction cards containing the "low preparer enforcement message." Participants who received the "high preparer enforcement message" received a score of "1" for the variable, while participants who received the "low preparer enforcement message" were given a score of "2." Eighty-two participants received the low preparer enforcement message, while 87 participants received the high preparer enforcement message.

The second independent variable, ETHICS, represents the ethical orientation of the taxpayer. The 20-item Mach IV instrument measures Machiavellianism tendencies and serves as a measure of ethical orientation. High and low ethical orientation groups were created by dividing the total ETHICS score at the median. Scores below the median were labeled "high

ethical orientation" and scores above the median were labeled "low ethical orientation." High

ethical orientation is coded as "1" and low ethical orientation is coded as "2." Eighty-seven

participants scored below the median (high ethical orientation) and 82 participants scored above

the median (low ethical orientation).

The final independent variable included in the analyses is the taxpayer's financial risk

perception (PER_RISK). The participants completed 20 risk perception items in the

questionnaire. The items were taken from the domain specific risk attitude scale (DOSPERT)

developed by Weber, Blais and Betz (2002). The scale measures risk perception on five

domains: ethical, financial, health/safety, social, and recreational domains and contains 4 items

for each domain. In the analyses in this study, the domain of interest is the financial domain[4].

Therefore, the PER_RISK variable is the sum of the four items of the financial domain added

together. This variable was then divided into two groups by splitting the participants' scores at

the median into low and high categories. Scores below the median were labeled "low risk

perception" and scores above the median were labeled "high risk perception." Ninety-six

participants scored below the median (low risk perception) and 73 participants scored above the

median (high risk perception).

The questionnaire also includes demographic items used as control variables in the

analysis. The gender variable (GENDER) is dummy coded as male "0" and female "1."

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[4] Results of a one-way ANOVA with the dependent variable COMPLY and the independent variable

TOTAL_PER_RISK are provided in Appendix D. The inclusion of the financial risk perception variable

(PER_RISK) rather than a total risk perception measure (TOTAL_PER_RISK) results in a better model of tax

compliance.

Educational level (EDLVL) is a categorical variable coded as lower undergraduate "1," upper undergraduate "2," and graduate "3." The participant's age serves as the measurement for the age (AGE) variable. Additionally, the amount of compensation earned by the participant (COMP) is included in the analysis as a control variable.

<p style="text-align:center">Demographics</p>

Descriptive statistics for the demographic variables are reported in Table 3-2. In the full data set, approximately 51% of the participants were male and 49% of the participants were female. The mean age of the participants was 21.25 years and most participants were upper-undergraduate students (73%). The mean compensation earned by the participants was $20.60.

In an effort to control for any potential influence of demographic variables, gender (GENDER), age (AGE), education level (EDLVL) and compensation (COMP) were included in separate one-way ANOVAs (for gender and educational level) and linear regression models (for age and compensation) with tax compliance (COMPLY) as the dependent variable and the single demographic variable as the independent variable (predictor). Additionally, chi square goodness of fit tests were performed to test the relationship between absolute tax compliance (ABSCOMPLY) and the categorical demographic variables (gender and education level) in the study. Binary logistic regression was used to test the relationship between absolute compliance and the continuous demographic variables (age and compensation). None of the control variables were found to be significantly correlated with the tax compliance.

<p style="text-align:center">Analysis of Variance</p>

<p style="text-align:center">Assumptions of ANOVA</p>

Univariate analysis is used to test the three research hypotheses with regard to the percentage of compliance (COMPLY). Using ANOVA, hypotheses H1-H3 examine the effects

of preparer enforcement communication (H1), ethical orientation (H2), and risk perception (H3) on tax compliance rates. Differences, if found, indicate that individual differences in risk perception and ethical orientation, as well as the enforcement role of the preparer, influence individual tax compliance rates. For ANOVA to be appropriate for data analysis for this study, several assumptions must be addressed. The first assumption is independence of observations. Each participant in this study completed the session one time, therefore the independence assumption is met.

The second assumption to address is the normality of the dependent variable. In order to check this assumption, the Shapiro-Wilk test is used. Results of this test indicated data are not normally distributed (p-value <.001). Because most participants in the study were either fully compliant or fully non-compliant, the data are bimodal (meaning that the compliance data is clustered at the tails). In this situation, ANOVA can be used even though the assumption of normality is violated. If the violation is caused by heavier tails, rather than heavy skewness of the data, ANOVA is considered to be robust to the violation (Becker, 1998; Pyzdek 2009).

Table 4-2. Pearson/Spearman Correlation Coefficients

	COMPLY	ABS COMPLY	PFORCE	ETHIC S	PER_FIN _RISK	GENDER
COMPLY	1.000	0.859**	-0.130	-0.125	0.013	0.107
ABSCOMPLY	0.986**	1.000	-0.140	-0.140	0.016	0.139
PFORCE	-0.138	-0.140	1.000	0.076	0.133	0.041
ETHICS	-0.144	-0.140	0.076	1.000	-0.082	-0.125
PER_FIN_RISK	0.012	0.016	0.133	-0.082	1.000	0.147
GENDER	0.131	0.139	0.041	-0.125	0.147	1.000

Pearson (Spearman) correlation coefficients are presented above (below) the diagonal.

Variable definitions are provided in Table 3-4.

** Correlation is significant at the 0.01level (2-tailed).

The assumption of equality of variance of the cells must also be considered when using ANOVA. Levene's test indicated that that cells do not appear to meet this assumption (p-value < .001). When the equal variance assumption is violated, specifically when cell sizes are not approximately equal, an adjusted F statistic should be used. The adjusted F statistic for each analysis is provided by the Welch test. Correlations among the dependent variable and independent variables are examined prior to performing the ANOVA. Pearson and Spearman correlations of the variables included in H1 through H3 are presented in Table 4-2. Examination of the correlation coefficients shows that the independent variables (PFORCE, ETHICS and PER_RISK) are not statistically correlated to one another at the 1% level.

Effect Size

The effect size measure evaluates the portion of total variation in the dependent variable that can be attributed to a particular independent variable. It is important to examine effect size, because an analysis can almost always reach statistical significance if there is a large enough sample. Furthermore, even a large effect may not be statistically significant if the sample size is too small. Therefore, for any analysis showing statistical significance, effect size should be measured. Eta squared, partial eta squared, and omega squared are three common effect size measures used with ANOVA. With small samples sizes, partial eta squared and eta squared can provide biased measures. However, omega squared provides an unbiased effect size measure. For this reason, omega squared will be presented for any significant effects found in the analysis (See Test of H1- ANOVA and Additional Analysis sections in this chapter).

Test of H1 - ANOVA

For hypotheses H1 through H3, the dependent variable (COMPLY) is measured as the ratio of the income self-reported to the total true income earned from completing the

multiplication task. Using a one-way ANOVA, hypothesis H1 is analyzed for a relationship between reporting compliance (COMPLY) and the enforcement communication of the preparer (PFORCE). For data analysis purposes, the high preparer enforcement treatment is coded as "1" and the low preparer enforcement treatment is coded as "0." The findings (Welch $F(1,167) =$ 2.825, p = .048) support hypothesis H1 and indicate that there is a statistically significant difference in compliance for the low preparer enforcement group (mean $M = .798$) versus the high preparer enforcement group ($M = .881$) (See Table 4-3). The direction of the relationship indicates that compliance is higher when an individual receives the high enforcement communication than when an individual receives the low enforcement communication. The effect size of the significant main effect is measured by the omega squared statistic. For the relationship between high preparer enforcement and tax compliance, omega squared is equal to .01.[5] According to Cohen, an omega-squared value between .01 and .0599 represents a small effect, indicating that only a small amount of the variance in tax compliance is accounted for by the preparer enforcement message.

Test of H2 - ANOVA

In order to test hypothesis H2 regarding the relationship between tax compliance and the ethical orientation of the taxpayer, a one-way ANOVA examines the relationship between reporting compliance (COMPLY) and the ethical orientation of the taxpayer (ETHICS). The independent variable, ETHICS, represents the ethical orientation of the taxpayer. As previously stated, compliance (COMPLY) is measured as the ratio of the income self-reported to the total true income earned from completing the multiplication task. The findings (Welch $F(1,167) =$

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[5] The formula for calculating omega squared is $SS_{effect} - (df_{effect})(MS_{error})/ MS_{error} + SS_{total}$

2.604, p = .055) only marginally support hypothesis H2 and indicate that individuals with a high

ethical orientation are not statistically significantly more compliant (at p < .05) (See Table 4-3).

However, the direction of the relationship indicates that compliance is higher for individuals in

the high ethical orientation group (M = .878) than for individuals in the low ethical orientation

group (M = .800).[6]

Table 4-3. Mean Tax Compliance (COMPLY) for Independent Variables

Variable	Group	Mean (M)	Std. Dev.	Welch F	p-value (1-tailed)
PFORCE	Low	0.798	0.288	2.825	0.048
	High	0.881	0.345		
ETHICS	Low Ethics	0.800	0.353	2.604	0.055
	High Ethics	0.878	0.279		
PER_RISK	Low Risk	0.837	0.373	0.028	0.433
	High Risk	0.846	0.312		

Test of H3 - ANOVA

In order to test hypothesis H3 regarding the relationship between tax compliance

(COMPLY) and the perceived financial risk of the taxpayer (PER_RISK), a one-way ANOVA is

used. The findings (Welch $F(1,167)$ = 0.028, p = .433) fail to support hypothesis H3 and

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[6] The effect size of the marginal support for H2 is measured by the omega squared statistic. For the relationship

between high ethical reasoning and tax compliance, omega squared is equal to .01. According to Cohen, an omega-

squared value between .01 and .0599 represents a small effect, meaning only a small amount of the variance in tax

compliance is accounted for by ethical orientation.

indicate that individuals with high risk perception are not statistically significantly more compliant than individuals with low risk perception (See Table 4-3).[7]

Tests of Compliance Measured in Absolute Terms

Assumptions of Chi Square

Recall that compliance was also measured in absolute terms. Specifically, participants were categorized as fully compliant or non-compliant. Chi square goodness of fit tests are performed to test the relationship between absolute tax compliance (ABSCOMPLY) and the independent variables in the study. Pearson's chi-squared test ($\chi 2$) is a statistical test applied to sets of categorical data to evaluate how likely it is that any observed difference between the sets is due to chance. For chi square to be appropriate in analysis of the dependent variable, ABSCOMPLY, two assumptions must be addressed. The first assumption is independence of observations. Each participant in this study completed the session one time, therefore the independence assumption is met. The second assumption is that each group in each variable should have a minimum expected frequency of 5. SPSS provides verification that this assumption is met for the analyses of H1 through H3.

Effect Size

As discussed in the ANOVA section, effect size should be measured for any analysis showing statistical significance. The effect size measure evaluates the portion of total variation

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[7] Results of a one-way ANOVA with the dependent variable COMPLY and the independent variable TOTAL_PER_RISK are presented in Appendix D. The inclusion of the financial risk perception variable (PER_RISK) rather than a total risk perception measure (TOTAL_PER_RISK) results in a better model of tax compliance.

in the dependent variable that can be attributed to a particular independent variable. It is important to examine effect size, because an analysis can almost always reach statistical significance if there is a large enough sample. For the chi-square analysis, Cramer's V was used to measure the magnitude of the effect size (See Test of H1 - Chi Square and Test of H2 – Chi Square in this section).

<div align="center">*Test of H1 – Chi Square*</div>

For hypotheses H1-H3, the data was divided into "100% compliant" and "Less than 100% compliant to examine (1) the percentage of absolute compliance and (2) the relationship between absolute compliance and each of the independent variables.

To test the relationship between absolute tax compliance (ABSCOMPLY) and the enforcement message of the preparer (PFORCE), a chi square goodness of fit test was calculated comparing the actual occurrence of absolute tax compliance for the high preparer enforcement group to the expected occurrence. The dependent variable is measured as "100% compliant" or "Less than 100% compliant." For the high preparer enforcement group, only 19.5% (17/87) of individuals were noncompliant (meaning the individual either reported zero income or reported an amount less than actually earned). However, for the low preparer enforcement group, 31.7% (26/82) of individuals were noncompliant (See Table 4-4).

Table 4-4. Contingency Table for Tax Compliance and Preparer Enforcement Message

Tax Compliance	Message Type		
	High Enforcement	Low Enforcement	Total
100 % compliant	70 (80.5%)	56 (68.3%)	126
Less than 100% compliant	17 (19.5%)	26 (31.7%)	43
Total	87 (100%)	82 (100%)	169

Results of the chi square goodness of fit test indicate that there is a statistically significant occurrence of absolute tax compliance for participants receiving the high enforcement message ($\chi2$ = 3.294, *p* = .035). In addition, effect size was computed to qualify the chi-square test results. For the chi-square analysis, the magnitude of the effect size was measured using Cramer's V (V = 0.1395). According to Cramer, for *df* = 1, 0.10 indicates a small effect, 0.30 indicates a medium effect, and 0.50 represents a large effect. Therefore, the significant results of the chi square goodness of fit in this analysis indicate a small effect size for the occurrence of absolute compliance for the high preparer enforcement group.

Test of H2 – Chi Square

To test the relationship between absolute tax compliance (COMPLY) and the ethical orientation of the taxpayer (ETHICS), a chi square goodness of fit test was calculated comparing the actual occurrence of absolute tax compliance for the high ethical reasoning group to the expected occurrence.

Table 4-5. Contingency Table for Tax Compliance and Ethical Orientation

Tax Compliance	Ethical Orientation		Total
	High Ethical Reasoning	Low Ethical Reasoning	
100 % compliant	70 (80.5%)	56 (68.3%)	126
Less than 100% compliant	17 (19.5%)	26 (31.7%)	43
Total	87 (100%)	82 (100%)	169

Results of the chi square goodness of fit test indicate that there is a statistically significant occurrence of absolute tax compliance for participants in the low ethical reasoning group ($\chi2$ = 3.294, *p* = .035). For the high ethical reasoning group, 80.5% (70/87) of individuals were compliant (meaning the individual reported all income earned). However, for the low ethical

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reasoning group, only 68.3% (56/82) of individuals were compliant (See Table 4-5). The effect

size was evaluated to further investigate the chi-square test results. For the chi-square analysis,

the magnitude of the effect size was measured using Cramer's V (V = 0.1395). According to

Cramer, for $df = 1$, 0.10 indicates a small effect, 0.30 indicates a medium effect, and 0.50

represents a large effect. Therefore, the significant results of the chi square goodness of fit in

this analysis indicate a small effect size for the occurrence of absolute compliance for the high

ethical reasoning group.[8]

<center><i>Test of H3 – Chi Square</i></center>

In order to further address the relationship between tax compliance (ABSCOMPLY) and

perceived financial risk of the taxpayer, a chi square goodness of fit test was calculated

comparing the actual occurrence of absolute tax compliance for the high financial risk perception

group to the expected occurrence. The dependent variable is measured as "100% compliant" or

"Less than 100% compliant." Participants categorized as having low financial risk perception

and participants categorized as having high financial risk perception were not statistically

significantly different in their compliance decision ($\chi2 = 0.042$, $p = .838$). Specifically, for the

low financial risk perception group, 26.0% (25/71) of individuals were noncompliant and for the

high risk perception group, 24.7% (18/73) of individuals were noncompliant (See Table 4-6).

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[8] Appendix C provides documentation regarding the frequencies of PFORCE and ETHICS for absolute tax

compliance. Results of the chi square goodness of fit tests for both variables resulted in identical contingency tables;

however, this is purely coincidental.

Table 4-6. Contingency Table for Tax Compliance and Perceived Financial Risk

Tax Compliance	Perceived Financial Risk		Total
	Low Risk Perception	High Risk Perception	
100 % compliant	71 (74.0%)	55 (75.3%)	126
Less than 100% compliant	25 (26.0%)	18 (24.7%)	43
Total	96 (100%)	73 (100%)	169

Additional Analyses – Factorial ANCOVA & Logistic Regression

Factorial ANCOVA

To further test tax compliance, specifically for possible interactions between the independent variables and the dependent variable, COMPLY, a three way (PFORCE x ETHICS x PER_RISK) analysis of covariance (ANCOVA) was conducted on participants' tax reporting decision, controlling for GENDER. ANCOVA has the same assumptions of ANOVA and two additional assumptions – (1) independence of the covariate and treatment effect, and (2) homogeneity of regression slopes (Field, 2013). To check the assumption of the independence of the covariate and treatment effect, the covariate, GENDER, was analyzed as the dependent variable in a regression with the three independent variables. Results of the regression indicate that PFORCE, ETHICS, and PER_RISK are not predictors of gender. Therefore, the assumption is not violated. To test the assumption of homogeneity of regression slopes, an additional analysis is conducted with an added interaction term between the covariate and the highest-level interaction. This interaction is insignificant and indicates that the assumption of homogeneity of regression slopes has not been violated.

Prior research has shown that gender, age, and educational level are all indicators of a taxpayer's decision to comply with U.S. tax laws. Harris, Jenkins, and Glaser (2006) found that, in financial domains, females, over males, tend to have a lower engagement rate in risky activities and they judge negative events more likely. Additionally, research suggests

relationships between gender and ethical orientation (Eisenhauer et al., 2011). Therefore, to

remove any bias due to gender, GENDER was included in this analysis as a covariate. AGE and

EDLVL were not included as covariates in the analysis. Research by Yeaton and Stellenwerf

(2008) suggests that for younger, less educated taxpayers, female taxpayers tend to be more

compliant than male taxpayers; but, as educational level increases, gender is not a significant

predictor of compliance. In the current study, most participants were of a similar age and were

almost all undergraduate college students. Consequently, their inclusion in the analysis would

not change any inferences.

Table 4-7. 2x2x2 ANCOVA with Dependent Variable (COMPLY)

	df	F	p-value
Intercept	1	513.740	0.000
GENDER	1	2.241	0.068
PFORCE	1	2.885	0.045
ETHICS	1	1.922	0.084
PER_RISK	1	0.046	0.416
PFORCE * ETHICS	1	2.503	0.116
PFORCE * PER_RISK	1	1.941	0.166
ETHICS * PER_RISK	1	4.292	0.040
PFORCE * ETHICS * PER_RISK	1	1.198	0.275
Error	160		
Total	169		
R Squared = .088 (Adjusted R Squared = .042)			

As shown in Table 4-7, a significant interaction exists between the financial risk

perception of the taxpayer (PER_RISK) and the taxpayer's ethical orientation, $(F(1, 160) =$

$4.292, p = .040)$[9]. The interaction effect represents the combined effect of the ethical orientation

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[9] Results of a three way ANCOVA with the dependent variable COMPLY and the independent variable

TOTAL_PER_RISK are presented in Appendix D. The inclusion of financial risk perception (PER_RISK) rather

than a total risk perception measure (TOTAL_PER_RISK) results in a better model of tax compliance.

of the individual and the individual's financial risk perception on the tax compliance decision. Therefore, the impact of the individual's ethical orientation measure is different for individuals with high financial risk perception versus individuals with low financial risk perception.

It is best to examine the simple main effects to interpret the significant interaction. However, it is recommended that the p-value be adjusted when testing simple effects. One procedure that is commonly used to "protect alpha" is to divide the desired p-value by the number of simple effects tests performed within each factor (see Pedhazur & Schmelkin, p. 527). In this study, the number of levels tested is 2. Therefore, simple effects with a p-value of less than .025 (alpha = .05/2) are considered statistically significant.

For the low financial risk perception group, participants in the low ethical reasoning group and the high ethical reasoning group exhibited similar compliance levels. Therefore, there was no significant difference in compliance among participants with low financial risk perception, regardless of their ethical orientation. (see Table 4-8). However, for the high financial risk perception group, participants who scored in the low ethical reasoning group were statistically significantly less compliant than participants who scored in the high ethical reasoning group.

Table 4-8. Simple Effects

Variable	Group	Mean	Std. Dev.	F	p-value (2-tailed)
Low Risk Perception	Low Ethical Reasoning	0.844	0.045	0.261	0.610
	High Ethical Reasoning	0.810	0.050		
High Risk Perception	Low Ethical Reasoning	0.751	0.055	5.446	0.021
	High Ethical Reasoning	0.925	0.050		

Note: Each F tests the simple effects of ETHICS within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

The effect size of the significant interaction is measured by the omega squared statistic. For the interaction between the ethical orientation of the taxpayer and the perceived risk of the taxpayer, omega squared is equal to .01[10]. According to Cohen, an omega-squared value between .01 and .0599 represents a small effect. As can be seen visually (Figure 4-1), when a participant falls into the "high risk perception group" tax compliance is significantly lower for individuals with low ethical reasoning versus individuals with high ethical reasoning. Specifically, mean compliance for the "high risk perception group" for individuals with a low ethical orientation was 75.1%, while the mean compliance for the "high risk perception group" for individuals with a high ethical orientation was 92.5% (see Table 4-7). In contrast, however, when a participant falls into the "low risk perception group," there is no significant difference in compliance whether the individual has low or high ethical reasoning.

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[10] The formula for calculating omega squared is $SS_{effect} - (df_{effect})(MS_{error}) / MS_{error} + SS_{total}$

ESTIMATED MARGINAL MEANS OF COMPLY
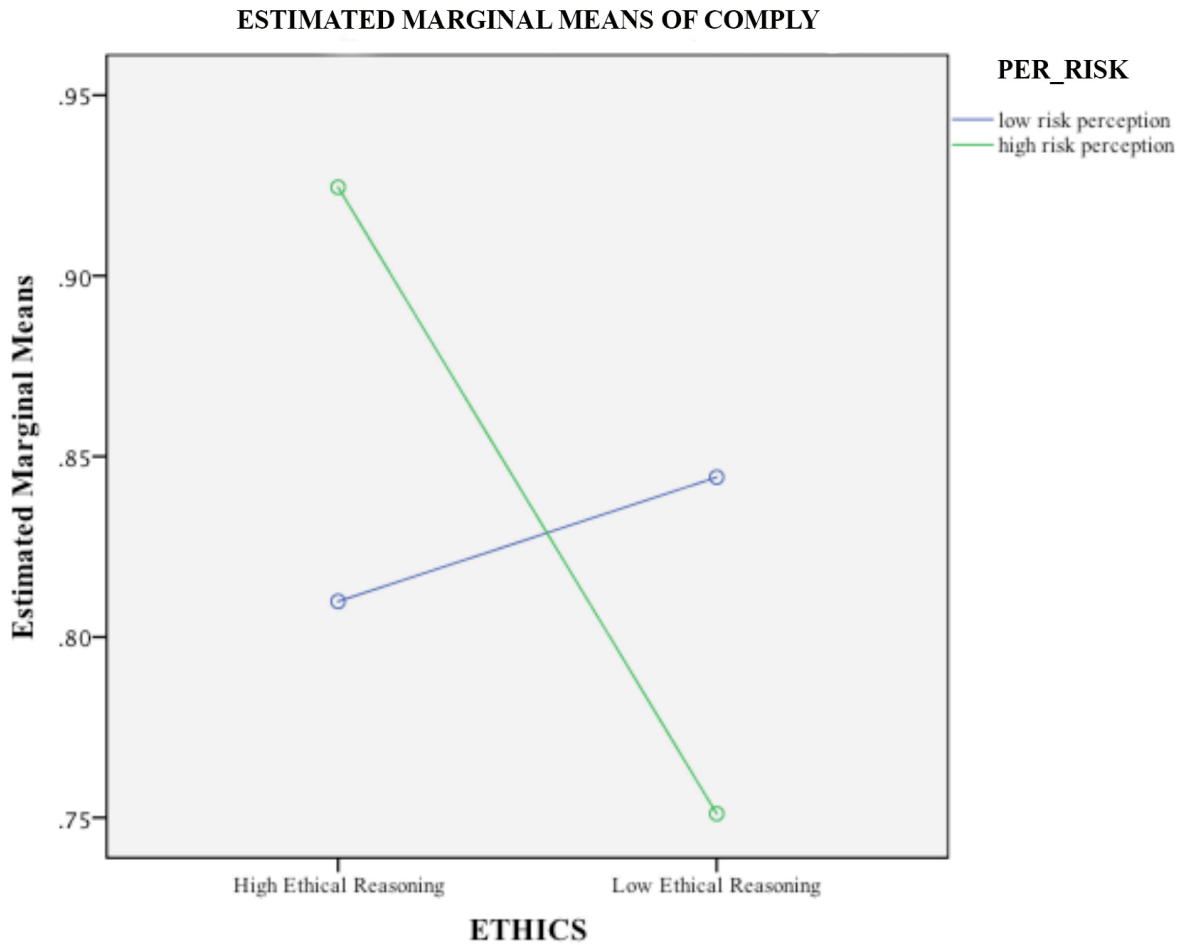
Figure 4-1. Graph of Interaction

Logistic Regression

Binary logistic regression is used to test for possible interactions between the independent variables (GENDER, PFORCE, ETHICS, and PER_RISK) and the dependent variable, ABSCOMPLY. Binary logistic regression is appropriate for this analysis due to the dichotomous nature of the dependent variable (ABSCOMPLY). This variable represents compliance separated into two groups: (1) participants who reported the full amount of income

earned, and (2) participants who reported any amount less than 100% of the amount of income

earned.

<div align="center">Table 4-9. Logistic Regression (ABSCOMPLY)</div>

Predictor	B	SE β	Wald's χ^2	df	p	e^β (odds ratio)
Constant	1.125	0.580	3.760	1	0.052	3.080
GENDER	0.716	0.386	3.443	1	0.064	0.489
PFORCE	0.286	0.758	0.142	1	0.706	0.751
ETHICS	0.285	0.725	0.155	1	0.694	1.330
PER_RISK	0.075	0.686	0.012	1	0.913	0.928
ETHICS*PFORCE	2.040	1.374	2.203	1	0.138	7.688
PER_RISK*PFORCE	0.987	0.998	0.977	1	0.323	2.682
ETHICS*PER_RISK	0.424	1.005	0.178	1	0.673	0.655
ETHICS*PER_RISK*PFORCE	1.564	1.691	0.856	1	0.355	0.209

Test	χ^2	df	p
Overall model evaluation			
Model Chi Square	13.490	8	0.096
Goodness-of-fit test			
Hosmer & Lemeshow	4.673	8	0.792

Before evaluating the beta coefficients for independent variables in the logistic

regression, the overall fit of the model was analyzed using a likelihood ratio test and a goodness

of fit test. The logistic regression model including GENDER, PFORCE, ETHICS, and

PER_RISK does not demonstrate an improvement over the null model ($\chi2 = 13.49$, p = 0.096).

However, further testing of the overall model fit is analyzed by the Hosmer and Lemeshow chi

square test of goodness of fit. This measure is considered more robust than the traditional chi-

square test, particularly because the sample size is small. A finding of non-significance

regarding the Hosmer and Lemeshow test indicates that the model adequately fits the data. In

the model including GENDER, PFORCE, ETHICS, and PER_RISK, the Hosmer and Lemeshow

test is insignificant ($\chi2 = 4.673$, p = 0.792). Therefore, this model adequately fits the data.

Analysis of the beta coefficients for GENDER, PFORCE, ETHICS, and PER_RISK as well as the interactions (see Table 4-9) did not indicate any significant main or interaction effects.

Summary

Chapter IV presented the analysis of the data beginning with a description of the research hypotheses and the definitions of the variables in the study. Descriptive data and univariate analysis of both dependent variables followed, reporting the findings of each hypothesis. Additional analyses included further tests of compliance using a three-way ANCOVA and a logistic regression to examine the interaction effect of the independent variables. Chapter V provides a detailed discussion of the findings and limitations, as well as gives suggestions for future research.

V: DISCUSSION, LIMITATIONS, AND SUGGESTIONS FOR FUTURE RESEARCH

In a voluntary tax system, taxpayers have an opportunity to avoid or evade the taxes. The reasons and the causes of noncompliance are expansive. One way to increase revenue to the government without increasing taxes is to focus on deterring tax evasion and tax underreporting. According to 2001 IRS estimates of the tax gap, only 1.2% of wages, salaries, and tips were underreported. Therefore, the great majority of underreported income stems from self-employed individuals (Rettig, 2010). Taxpayers with self-employment income, then, are more likely to evade the tax system and have been found to be more likely to use a paid tax preparer. As such, it is important to understand the role of the tax preparer in the compliance decision of self-employed individuals. Additionally, there is merit in understanding the characteristics of individual taxpayers and the elements in the tax environment that contribute to noncompliance. This chapter summarizes the findings while providing a discussion of the results and the implications to taxpayers, tax preparers, and policy makers. Limitations of the current research and ideas for future research are also presented.

The current study was conducted to examine the effects on tax compliance of the taxpayer's ethical orientation and perceived financial risk, as well as the role of the tax preparer in the compliance decision. This study contributes to the tax compliance literature by providing evidence that communication with a tax preparer affects the individual taxpayer's compliance decision. Additionally, the study adds to the body of tax compliance literature by providing insight regarding the role of the tax preparer in situations where income is not reported to a third

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party and the tax law is clear, yet noncompliance still occurs. The role of enforcer and how the tax preparer communicates this enforcement has received little attention in tax compliance research prior to this study. Nearly all previous research has focused on the tax preparer's role as an advocate in ambiguous situations.

Discussion of Findings

The primary intention of this study was to investigate whether a tax preparer's communication of both audit risk and required income disclosure affects a taxpayer's compliance decision. Additionally, this study aimed to provide further understanding of how risk perception and ethical standards affect tax compliance. Statistical analyses indicate a significant main effect regarding the enforcement message of the tax preparer. Individuals receiving a high enforcement message are significantly more compliant that individuals receiving a low enforcement message. These findings, which have not been previously reported, contribute meaningfully to the understanding of the role of the tax preparer in the individual tax compliance decision. The analysis of the relationship between ethical orientation and tax compliance provides further verification that individuals with high ethical reasoning are more compliant (in the measure of absolute compliance).

Additionally, a significant interaction is found between the financial risk perception of the taxpayer and the taxpayer's ethical orientation, implying that the impact of the ethical orientation of the taxpayer is different for individuals with high financial risk perception versus individuals with low financial risk perception. This finding supports the existing tax compliance literature, specifically that of Eisenhauer et al. (2011) and Ghosh and Crain (1995) regarding the interactive effect of ethical standards and risk perception on the tax compliance decision.

The Tax Preparer and Tax Compliance

Hypothesis H1 examines the relationship between reporting compliance and the enforcement message of the preparer. It is possible that tax preparers play a far greater role in the tax compliance decision than research indicates. Although prior research has focused on tax preparer "advice" in ambiguous tax scenarios, there has been little experimental research investigating the effect of the preparer on compliance when there isn't tax ambiguity. Yet, many taxpayers still choose to use a preparer when their tax situation is clear. The existing due diligence requirements of Circular 230 allow preparers to rely on taxpayer-provided information unless the preparer has reason to believe that the information appears to be incomplete or incorrect. When the tax law is clear, as is the case for full income disclosure, tax preparers contribute to compliance by serving as enforcers of the tax law. This enforcement role may involve the tax preparer's communication of audit risk as well the tax preparer's demand for the taxpayer's full income disclosure.

As discussed previously, Morse et al. (2009), in a field study, found that many taxpayers and their preparers have a "don't ask, don't tell" understanding that they will not discuss cash income. The analyses in this research found a statistically significant positive relationship between tax compliance and the high enforcement message of the tax preparer. Individuals receiving the high preparer enforcement communication were explicitly reminded to indicate the correct amount of compensation received, while those receiving the low preparer enforcement communication were not. The results from these analyses of both tax compliance rate and absolute tax compliance provide experimental evidence of the enforcement role of the tax preparer and also support the Morse et al. findings.

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Hypothesis H2 investigates the relationship between tax reporting compliance and the ethical orientation of the taxpayer. Tax compliance is this study is measured and tested as a rate of compliance and as absolute compliance (complied 100% or complied less than 100%). The analysis of the tax compliance rate, unlike many prior studies, did not indicate a statistically significant difference in compliance for individuals with a low ethical orientation versus those with a high ethical orientation. However, the direction of the relationship indicates that compliance is higher for individuals with a higher ethical orientation.

Interestingly, the results of this analysis are consistent with the findings of Blanthorne & Kaplan (2008). Their research suggests that the opportunity to evade has indirect as well as direct effects on compliance and that ethical beliefs about tax evasion are influenced by opportunity to evade. According to the findings of Blanthorne & Kaplan, high opportunity taxpayers (those who are self-employed and not participant to third party reporting) tend to judge underreporting of income to the government as less unethical compared to taxpayers with a low opportunity to evade income tax. Therefore, taxpayers who are most likely to have the opportunity to evade taxes (the self-employed) are less likely to exhibit a significant correlation between ethical orientation and compliance behavior. This is consistent with the findings of the current research.

Although no main effect was found in the analysis of tax compliance rate and ethical orientation, the factorial analysis did indicate a statistically significant interaction between the financial risk perception of the taxpayer and the ethical orientation of the taxpayer. This interaction effect represents the combined effect of the individual's ethical orientation and the individual's financial risk perception on the tax compliance rate. Therefore, the impact of the

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ethical orientation of the taxpayer is different for individuals with high financial risk perception versus individuals with low financial risk perception. Specifically, tax compliance rate is not significantly different for individuals with high ethical reasoning versus low ethical reasoning, when the individual perceives risk to be low. However, when an individual perceives risk to be high, individuals with low ethical reasoning are significantly less compliant than individuals with high ethical reasoning. This finding supports the existing tax compliance literature, specifically that of Eisenhauer et al. (2011) and Ghosh and Crain (1995) regarding the joint effect of ethical standards and risk perception on the tax compliance decision.

The univariate analysis of absolute compliance indicates that there is a statistically significant occurrence of absolute tax compliance for individuals with high ethical reasoning. This finding is consistent with prior research indicating that taxpayers with high ethical reasoning are more compliant than taxpayers with low ethical reasoning. It is interesting that results were insignificant for tax compliance rate and ethical reasoning, but significant for absolute compliance and ethical reasoning. It is possible that these results are due to the fact that individuals with high ethical reasoning are more likely to view noncompliance as unethical, regardless of the degree of noncompliance.

Risk Perception and Tax Compliance

In tax research, detection risk is normally thought of as the uncertainty of being audited and fined. Early research, due to the use of unrealistic audit rates as well as the use of objective audit probabilities set by researchers, provided mixed results regarding the influence of detection risk and penalty on tax compliance (Carnes & Englebrecht, 1995). Schauer and Bajor (2007) state that "taxpayers' perceptions of their detection risk and the severity of the associated

penalties vary by taxpayer, but these perceptions are much more important than real

probabilities, for it is their perceptions to which they are reacting" (p. 22).

Accordingly, in this study, hypothesis H3 investigates the relationship between perceived

financial risk of the taxpayer and tax compliance. The analyses of the relationship between

individual financial risk perception and both the tax compliance rate and absolute tax compliance

fail to support hypothesis H3 and indicate that there is a not a statistically significant difference

in compliance for individuals with high financial risk perception versus those with a low

financial risk perception. Nonetheless, the direction of the relationship for both tax compliance

rate and absolute compliance indicates that individuals who perceive financial risk to be high are

more compliant than individuals who perceive financial risk to be low.

Additionally, as discussed above, the factorial analysis regarding tax compliance rate

indicated a statistically significant interaction between the financial risk perception of the

taxpayer and the ethical orientation of the taxpayer. Tax compliance is not significantly different

for individuals with high ethical reasoning versus low ethical reasoning, when the individual

perceives risk to be low. However, when an individual perceives risk to be high, individuals with

low ethical reasoning are significantly less compliant than individuals with high ethical

reasoning. This finding is consistent with existing tax compliance literature regarding the

interactive effect of ethical standards and risk perception on the tax compliance decision.

<div align="center">Limitations</div>

As with any research, limitations exist in this study. These limitations must be

considered when assessing the research findings. First, the findings in this study were obtained

in a laboratory environment. It is possible that people may act differently in a laboratory setting

than in real-life situations. Additionally, the participants in the experiment were undergraduate

and graduate business and accounting students. According to an analysis of accounting literature by Ashton and Kramer (1980), students and nonstudents make similar decisions in studies involving decision-making, but the fact remains that the sample of individuals in this study is not totally representative of the wider population of American taxpayers. For example, the mean age of the participants is 21.25 years of age. Samples that include greater representation from demographic groups not adequately represented in this study would allow analyses of differences in expected behaviors among those groups. Also, future studies with larger sample sizes might improve the generalizability of the results to the entire population of taxpayers.

Third, this study only focused on reporting of "income." Therefore, noncompliance due to excessive deductions was not analyzed and this type of noncompliance may produce different results. Finally, this study does not address the rationale for the tax preparer's *choice* of high or low enforcement communication. Rather, this study examines the effect of communication type on the individual taxpayer compliance decision. Future studies may need to incorporate the tax preparer's rationale for giving a high or low enforcement message as well as the taxpayer's rationale for seeking a preparer.

Conclusions

The current study contributes to existing individual tax compliance literature by providing a study of tax compliance that incorporates the influence of the preparer's role as an enforcer of the tax law. The findings distinctly exhibit the relevance of tax compliance models that go beyond the traditional "economics of crime approach" and capture the tax preparer's role in the individual compliance decision. When the tax preparer assumes an enforcement role, his or her influence may help to overcome a taxpayer's tendency towards noncompliance due to the influences of the taxpayer's ethical orientation and risk perception.

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This study also adds to the tax compliance literature by investigating the influence of tax preparers in unambiguous tax situations in an experimental setting. In an experimental setting, accurate compliance rates can be collected and each variable that affects compliance can be identified and controlled for in the experimental design (Alm et al., 2009). Additionally, this study expands upon previous research by incorporating an income-earning task, rather than participant's receiving an endowment or being given a hypothetical tax scenario. By having participants earn income, the study provides a more realistic representation of self-employment income. Finally, this study improves upon current research measuring risk by incorporating a domain specific risk measurement scale. This study advances the existing individual tax compliance literature and can potentially assist policymakers and regulators in developing more effective means to increase individual tax compliance. Regulation imposing practitioner penalties for taking aggressive tax positions on ambiguous items does not address the issue of taxpayer underpayment when the tax law is clear. With the number of professionally prepared returns increasing, these findings regarding the preparer's role in enforcement are important.

Future Research

Knowledge of individual factors as well as the role of the tax preparer in compliance could lead to better compliance rates and more effective administration of the income tax system. Therefore, future research should attempt to identify additional characteristics and circumstances that may affect compliance behaviors. Additional research could identify factors not examined in this study that might account for a greater portion of the variance. Because this is the first research study focusing on the role of the preparer in an unambiguous tax situation, future similar studies are needed to validate the results of this dissertation.

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LIST OF APPPENDICES

APPENDIX A: MEASUREMENT SCALES

Mach IV Scale

1. Never tell anyone the real reason you did something unless it is useful to do so.
2. The best way to handle people is to tell them what they want to hear.
3. One should take action only when sure it is morally right.
4. Most people are basically good and kind.
5. It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.
6. Honesty is the best policy in all cases.
7. There is no excuse for lying to someone else.
8. Generally speaking, men don't work hard unless they're forced to do so.
9. All in all, it is better to be humble and honest than important and dishonest.
10. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons that might carry more weight.
11. Most people who get ahead in the world lead clean, moral lives.
12. Anyone who completely trusts anyone else is asking for trouble.
13. The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.
14. Most men are brave.
15. It is wise to flatter important people.
16. It is possible to be good in all respects.
17. Barnum was very wrong when he said there's a sucker born every minute.
18. It is hard to get ahead without cutting corners here and there.
19. People suffering from incurable diseases should have the choice of being put painlessly to death.
20. Most men forget more easily the death of their father than the loss of their property.

Positives – 1,2,5,8,12,13,15,18,19,20
Negatives – 3,4,6,7,9,10,11,14,16,17 (must reverse code these)

Information taken from "Studies in Machiavellianism" by Richard Christie and Florence L. Geis; page 17-18

Academic Press: New York and London (1970)

Domain-Specific Risk-Taking (Adult) Scale – Risk Perceptions (20 items included in this study)

People often see some risk in situations that contain uncertainty about what the outcome or consequences will be and for which there is the possibility of negative consequences. However, riskiness is a very personal and intuitive notion, and we are interested in your gut level assessment of how risky each situation or behavior is.

For each of the following statements, please indicate how risky you perceive each situation. Provide a rating from *Not at all Risky* to *Extremely Risky*, using the following scale:

1	2	3	4	5	6	7
Not at all Risky	Slightly Risky	Somewhat Risky	Moderately Risky	Risky	Very Risky	Extremely Risky

1. Admitting that your tastes are different from those of a friend. (S)
2. Betting a day's income at the horse races. (F/G)
3. Investing 10% of your annual income in a moderate growth mutual fund. (F/I)
4. Taking some questionable deductions on your income tax return. (E)
5. Disagreeing with an authority figure on a major issue. (S)
6. Betting a day's income at a high-stake poker game. (F/G)
7. Passing off somebody else's work as your own. (E)
8. Going down a ski run that is beyond your ability. (R)
9. Investing 5% of your annual income in a very speculative stock. (F/I)
10. Going whitewater rafting at high water in the spring. (R)
11. Revealing a friend's secret to someone else. (E)
12. Driving a car without wearing a seat belt. (H/S)
13. Riding a motorcycle without a helmet. (H/S)
14. Speaking your mind about an unpopular issue in a meeting at work. (S)
15. Sunbathing without sunscreen. (H/S)
16. Bungee jumping off a tall bridge. (R)
17. Piloting a small plane. (R)
18. Walking home alone at night in an unsafe area of town. (H/S)
19. Moving to a city far away from your extended family. (S)
20. Not returning a wallet you found that contains $200. (E)

Note. E = Ethical, F = Financial, H/S = Health/Safety, R = Recreational, and S = Social.

Reference:
Blais, A-R. and E. U. Weber. 2006. "A Domain-specific Risk-taking (DOSPERT) Scale for Adult Populations." *Judgment and Decision Making, 1*, 33-47.

Domain-Specific Risk-Taking (Adult) Scale – Risk Perceptions (10 items not included in this study)

People often see some risk in situations that contain uncertainty about what the outcome or consequences will be and for which there is the possibility of negative consequences. However, riskiness is a very personal and intuitive notion, and we are interested in your gut level assessment of how risky each situation or behavior is.

For each of the following statements, please indicate how risky you perceive each situation. Provide a rating from *Not at all Risky* to *Extremely Risky*, using the following scale:

1	2	3	4	5	6	7
Not at all Risky	Slightly Risky	Somewhat Risky	Moderately Risky	Risky	Very Risky	Extremely Risky

1. Going camping in the wilderness. (R)

2. Drinking heavily at a social function. (H/S)

3. Having an affair with a married man/woman. (E)

4. Betting a days income on the outcome of a sporting event. (F)

5. Engaging in unprotected sex. (H/S)

6. Investing 10% of your annual income in a new business venture. (F)

7. Taking a skydiving class. (R)

8. Choosing a career that you truly enjoy over a more secure one. (S)

9. Starting a new career in your mid-thirties. (S)

10. Leaving your young children alone at home while running an errand. (E)

Note. E = Ethical, F = Financial, H/S = Health/Safety, R = Recreational, and S = Social.

Reference:
Blais, A-R. and E. U. Weber. 2006. "A Domain-specific Risk-taking (DOSPERT) Scale for Adult Populations." *Judgment and Decision Making, 1*, 33-47.

APPENDIX B: INSTRUMENT

Questionnaire Instructions (on computer screen)

"This is an experiment involving decision-making under uncertainty. The experiment will be conducted in three phases. In the first phase, you will complete a questionnaire. You must complete the questionnaire before moving on to Phase 2. In Phase 2, which contains a multiplication task, you will have the opportunity to earn up to $30 in compensation. After receiving your compensation, you will be directed to another room to complete Phase 3 of the experiment. This phase involves reporting your earnings and paying a 25% participation fee based on reported earnings. Phase 3 is the final step in the experiment.

You should expect to spend between 30 and 40 minutes through the entire three phases of the experiment.

Identification numbers are randomly distributed and, therefore, cannot be linked to you. Thus, your privacy is completely protected. It is important to work privately. Please do not communicate with other participants either verbally or in any other manner. Complete privacy is important, and we expect your cooperation. We must ask anyone found communicating with others in any manner to leave the room. Please do not exit your computer station until you have completed the entire questionnaire and task. If you have any questions, quietly raise your hand and an assistant will come to you. After reading these instructions, you may begin completing the questionnaire. You have 15 minutes to complete the 45-item questionnaire before moving to Phase 2.
Press "Next" to begin the questionnaire."

Questionnaire

You will find a series of general statements below. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. I am interested in the extent to which you agree or disagree with such matters of opinions.

Please read each statement carefully. Please use the following scale to indicate your agreement/disagreement with the statements below by circling the appropriate number.

1 = Strongly Disagree;
2 = Disagree;
3 = Neutral;
4 = Agree
5 = Strongly Agree

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1 Never tell anyone the real reason you did something unless it is useful to do so.	1	2	3	4	5
2 The best way to handle people is to tell them what they want to hear.	1	2	3	4	5
3 One should take action only when sure it is morally right.	1	2	3	4	5
4 Most people are basically good and kind.	1	2	3	4	5
5 It is safest to assume that all people have a vicious streak and it will come out when they are given the chance.	1	2	3	4	5
6 Honesty is the best policy in all cases.	1	2	3	4	5
7 There is no excuse for lying to someone else.	1	2	3	4	5
8 Generally speaking, men don't work hard unless they're forced to do so.	1	2	3	4	5
9 All in all, it is better to be humble and honest than important and dishonest.	1	2	3	4	5
10 When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which might carry more weight.	1	2	3	4	5
11 Most people who get ahead in the world lead clean, moral lives.	1	2	3	4	5
12 Anyone who completely trusts anyone else is asking for trouble.	1	2	3	4	5
13 The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.	1	2	3	4	5
14 Most people are brave.	1	2	3	4	5
15 It is wise to flatter important people.	1	2	3	4	5
16 It is possible to be good in all respects.	1	2	3	4	5
17 Barnum was very wrong when he said there's a sucker born every minute.	1	2	3	4	5
18 It is hard to get ahead without cutting corners here and there.	1	2	3	4	5
19 People suffering from incurable diseases should have the choice of being put painlessly to death.	1	2	3	4	5
20 Most people forget more easily the death of their father than the loss of their property.	1	2	3	4	5

People often see some risk in situations that contain uncertainty about what the outcome or consequences will be and for which there is the possibility of negative consequences. However, riskiness is a very personal and intuitive notion, and we are interested in your gut level assessment of how risky each situation or behavior is.

For each of the following statements, please indicate **how risky you perceive** each situation. Provide a rating from *Not at all Risky* to *Extremely Risky*, using the scale:

	Not at all Risky		Moderately Risky			Extremely Risky
21 Admitting that your tastes are different from those of a friend.	1	2	3	4	5	6	7
22 Betting a day's income at the horse races.	1	2	3	4	5	6	7
23 Investing 10% of your annual income in a moderate growth mutual fund.	1	2	3	4	5	6	7
24 Taking some questionable deductions on your income tax return.	1	2	3	4	5	6	7
25 Disagreeing with an authority figure on a major issue.	1	2	3	4	5	6	7
26 Betting a day's income at a high-stake poker game.	1	2	3	4	5	6	7
27 Passing off somebody else's work as your own.	1	2	3	4	5	6	7
28 Going down a ski run that is beyond your ability.	1	2	3	4	5	6	7
29 Investing 5% of your annual income in a very speculative stock.	1	2	3	4	5	6	7
30 Going whitewater rafting at high water in the spring.	1	2	3	4	5	6	7
31 Revealing a friend's secret to someone else.	1	2	3	4	5	6	7
32 Driving a car without wearing a seat belt.	1	2	3	4	5	6	7
33 Riding a motorcycle without a helmet.	1	2	3	4	5	6	7
34 Speaking your mind about an unpopular issue in a meeting at work.	1	2	3	4	5	6	7
35 Sunbathing without sunscreen.	1	2	3	4	5	6	7
36 Bungee jumping off a tall bridge.	1	2	3	4	5	6	7
37 Piloting a small plane.	1	2	3	4	5	6	7
38 Walking home alone at night in an unsafe area of town.	1	2	3	4	5	6	7
39 Moving to a city far away from your extended family.	1	2	3	4	5	6	7
40 Not returning a wallet you found that contains $200.	1	2	3	4	5	6	7

41. Are you male or female?

    ○ Male

    ○ Female

42. In what year were you born? (enter 4-digit birth year; for example, 1976)

    [   ]

43. Please indicate your classification:
- Freshman
- Sophomore
- Junior
- Senior
- Graduate

44 . What is your major?
- Business
- Accountancy
- Other
- Undecided

45. Please indicate your approximate GPA
- 3.5 – 4.0
- 3.0 – 3.5
- 2.5 - 3.0
- 2.0 – 2.5
- below 2.0

Participant Multiplication Task and Earnings Form

You have 12 minutes to solve the 15 multiplication problems below. Your payment for this task is $2.00 for every correct solution. Therefore, you are able to earn an amount between $0 and $30 based on the number of correct solutions. Please do not communicate with others or use any form of calculator to complete this task. A piece of scratch paper and a pencil are provided to you. Use the paper and pencil to hand-calculate the solutions and type your response in the box beneath each problem. Press enter to begin the task.

(Participant presses enter and the problems appear on the screen)

| 263 | 85 | 29 |
| x 8 | x 66 | x 0 |

| 40 | 994 | 92 |
| x 849 | x 91 | x 87 |

| 383 | 27 | 322 |
| x 61 | x 14 | x 56 |

| 52 | 243 | 610 |
| x 7 | x 81 | x 409 |

| 716 | 64 | 381 |
| x 531 | x 9 | x 50 |

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Earnings Form Instructions

You are receiving compensation based on the number of multiplication problems you solved correctly. After receiving your compensation, please remember to put your money in your wallet, pocket or purse. When you leave your computer and proceed to the next room, a fee assistant will help you calculate your participation fee. You will need to fill in your compensation on your earnings form, because the fee assistant does <u>NOT</u> have a record of the compensation you received. After you fill in your compensation on your earnings form, the fee assistant will calculate your fee and ask you to place the fee in your envelope with your earnings form and instructions.

Your participation fee is calculated as 25% of the amount of earnings you report on your earnings form. There is not enough time for the researcher to check whether each participant reported the actual compensation received. However, you will be asked to spin a bingo cage when you exit this room. The bingo cage contains 49 white balls and one red ball. If you receive one of the 49 white balls, your earnings form is not checked and you have completed all phases of the experiment and are free to go. If you spin the cage and receive the one red ball, your earnings form will be checked. You will be asked to go back to the lab so that the lab assistant can verify that the amount of earnings you reported is equal to the compensation you received. This means that there is a 2% chance that your earnings form will be checked and a 98% chance that your earnings form will not be checked.

<u>REMEMBER:</u> There is only a 2% chance that your earnings form will be checked.

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Earnings Form Instructions

You are receiving compensation based on the number of multiplication problems you solved correctly. After receiving your compensation, please remember to put your money in your wallet, pocket or purse. When you leave your computer and proceed to the next room, a fee assistant will help you calculate your participation fee. You will need to fill in your compensation on your earnings form, because the fee assistant does <u>NOT</u> have a record of the compensation you received. After you fill in your compensation on your earnings form, the fee assistant will calculate your fee and ask you to place the fee in your envelope with your earnings form and instructions.

Your participation fee is calculated as 25% of the amount of earnings you report on your earnings form. There is not enough time for the researcher to check whether each participant reported the actual compensation received. However, you will be asked to spin a bingo cage when you exit this room. The bingo cage contains 49 white balls and one red ball. If you receive one of the 49 white balls, your earnings form is not checked and you have completed all phases of the experiment and are free to go. If you spin the cage and receive the one red ball, your earnings form will be checked. You will be asked to go back to the lab so that the lab assistant can verify that the amount of earnings you reported is equal to the compensation you received. This means that there is a 2% chance that your earnings form will be checked and a 98% chance that your earnings form will not be checked.

<u>REMEMBER:</u> While there is only a 2% chance that your earnings form will be checked, you are expected to indicate correctly the amount of money provided to you as compensation and pay the required participation fee.

</div>

<u>Earnings Form</u>

Amount Earned: _____

X 25% Participation Fee _____

APPENDIX C: VERIFICATION OF PFORCE AND ETHICS FOR CHI SQUARE TESTS

Data for "Completely Noncompliant" Participants (ABSComply is "0") and for Completely Compliant Participants (ABSComply is "1")

Absolute Compliance Sorted into High and Low Enforcement				**Absolute Compliance Sorted into High and Low Ethics**			
Subject ID	AbsComply	Pforce	Ethics	Subject ID	AbsComply	Pforce	Ethics
117	0	1	2	110	0	2	1
166	0	1	1	114	0	2	1
225	0	1	2	118	0	2	1
235	0	1	2	130	0	2	1
239	0	1	2	164	0	2	1
244	0	1	1	166	0	1	1
249	0	1	2	218	0	2	1
251	0	1	2	224	0	2	1
252	0	1	1	228	0	2	1
270	0	1	1	238	0	2	1
405	0	1	2	244	0	1	1
413	0	1	2	252	0	1	1
471	0	1	2	270	0	1	1
475	0	1	2	456	0	2	1
494	0	1	1	476	0	2	1
505	0	1	2	494	0	1	1
508	0	1	1	508	0	1	1
High Enforcement		**17**		**High Ethics**			**17**
101	0	2	2	101	0	2	2
110	0	2	1	115	0	2	2
114	0	2	1	117	0	1	2
115	0	2	2	131	0	2	2
118	0	2	1	133	0	2	2
130	0	2	1	145	0	2	2
131	0	2	2	223	0	2	2
133	0	2	2	225	0	1	2
145	0	2	2	235	0	1	2
164	0	2	1	237	0	2	2
218	0	2	1	239	0	1	2
223	0	2	2	243	0	2	2
224	0	2	1	249	0	1	2
228	0	2	1	251	0	1	2
237	0	2	2	255	0	2	2
238	0	2	1	347	0	2	2
243	0	2	2	405	0	1	2
255	0	2	2	409	0	2	2
347	0	2	2	413	0	1	2
409	0	2	2	415	0	2	2
415	0	2	2	445	0	2	2
445	0	2	2	469	0	2	2
456	0	2	1	471	0	1	2
469	0	2	2	475	0	1	2
476	0	2	1	481	0	2	2
481	0	2	2	505	0	1	2
Low Enforcement		**26**		**Low Ethics**			**26**
Total Noncomply		**43**		**Total Noncomply**			**43**

Absolute Compliance Sorted into High and Low Enforcement

Subject ID	AbsComply	Pforce	Ethics
102	1	1	1
103	1	1	2
105	1	1	2
108	1	1	1
109	1	1	2
113	1	1	2
116	1	1	1
122	1	1	1
123	1	1	2
124	1	1	1
125	1	1	2
126	1	1	1
128	1	1	1
129	1	1	2
140	1	1	1
141	1	1	2
142	1	1	1
148	1	1	1
149	1	1	2
150	1	1	1
151	1	1	2
188	1	1	1
196	1	1	1
219	1	1	2
221	1	1	2
222	1	1	1
226	1	1	1
231	1	1	2
234	1	1	1
236	1	1	1
240	1	1	1
241	1	1	2
246	1	1	1
248	1	1	1
253	1	1	2
254	1	1	1
261	1	1	2
264	1	1	1
265	1	1	2
266	1	1	1
268	1	1	1
269	1	1	2
273	1	1	2
279	1	1	2
283	1	1	2
340	1	1	1
364	1	1	1
402	1	1	1
404	1	1	1
408	1	1	1
410	1	1	1
410	1	1	1
414	1	1	1
457	1	1	2
458	1	1	1
470	1	1	1
484	1	1	1
491	1	1	2
493	1	1	2
500	1	1	1
501	1	1	2
506	1	1	1
520	1	1	1
521	1	1	2
522	1	1	1
523	1	1	2
524	1	1	1
536	1	1	1
549	1	1	2
550	1	1	1
High Enforcement		**70**	

Absolute Compliance Sorted into High and Low Ethics

Subject ID	AbsComply	Pforce	Ethics
102	1	1	1
104	1	2	1
106	1	2	1
108	1	1	1
112	1	2	1
116	1	1	1
120	1	2	1
122	1	1	1
124	1	1	1
126	1	1	1
128	1	1	1
132	1	2	1
138	1	2	1
140	1	1	1
142	1	1	1
144	1	2	1
146	1	2	1
148	1	1	1
150	1	1	1
152	1	2	1
188	1	1	1
196	1	1	1
200	1	2	1
220	1	2	1
222	1	1	1
226	1	1	1
230	1	2	1
232	1	2	1
234	1	1	1
236	1	1	1
240	1	1	1
242	1	2	1
246	1	1	1
248	1	1	1
250	1	2	1
254	1	1	1
262	1	2	1
264	1	1	1
266	1	1	1
268	1	1	1
288	1	2	1
296	1	2	1
340	1	1	1
346	1	2	1
352	1	2	1
364	1	1	1
402	1	1	1
404	1	1	1
406	1	2	1
408	1	1	1
410	1	1	1
414	1	1	1
432	1	2	1
458	1	1	1
470	1	2	1
470	1	1	1
474	1	2	1
482	1	2	1
484	1	1	1
500	1	1	1
502	1	2	1
504	1	2	1
506	1	1	1
520	1	1	1
522	1	1	1
524	1	1	1
536	1	1	1
548	1	2	1
550	1	1	1
High Ethics			**70**

Absolute Compliance Sorted into High and Low Enforcement

Subject ID	AbsComply	Pforce	Ethics
104	1	2	1
106	1	2	1
107	1	2	2
111	1	2	2
112	1	2	1
119	1	2	2
120	1	2	1
121	1	2	2
132	1	2	1
138	1	2	1
139	1	2	2
144	1	2	1
146	1	2	1
147	1	2	2
152	1	2	1
153	1	2	2
177	1	2	2
183	1	2	2
193	1	2	2
200	1	2	1
217	1	2	2
220	1	2	1
227	1	2	2
229	1	2	2
230	1	2	1
232	1	2	1
235	1	2	2
242	1	2	1
247	1	2	2
250	1	2	1
262	1	2	1
263	1	2	2
267	1	2	2
271	1	2	2
288	1	2	1
296	1	2	1
346	1	2	1
352	1	2	1
401	1	2	2
406	1	2	1
431	1	2	2
432	1	2	1
470	1	2	1
473	1	2	2
474	1	2	1
482	1	2	1
483	1	2	2
502	1	2	1
503	1	2	2
503	1	2	2
504	1	2	1
507	1	2	2
509	1	2	2
535	1	2	2
537	1	2	2
548	1	2	1
Low Enforcement		**56**	
Total Comply		**126**	

Absolute Compliance Sorted into High and Low Ethics

Subject ID	AbsComply	Pforce	Ethics
103	1	1	2
105	1	1	2
107	1	2	2
109	1	1	2
111	1	2	2
113	1	1	2
119	1	2	2
121	1	2	2
123	1	1	2
125	1	1	2
129	1	1	2
139	1	2	2
141	1	1	2
147	1	2	2
149	1	1	2
151	1	1	2
153	1	2	2
177	1	2	2
183	1	2	2
193	1	2	2
217	1	2	2
219	1	1	2
221	1	1	2
227	1	2	2
229	1	2	2
231	1	1	2
235	1	2	2
241	1	1	2
247	1	2	2
253	1	1	2
261	1	1	2
263	1	2	2
265	1	1	2
267	1	2	2
269	1	1	2
271	1	2	2
273	1	1	2
279	1	1	2
283	1	1	2
401	1	2	2
431	1	2	2
457	1	1	2
473	1	2	2
483	1	2	2
491	1	1	2
493	1	1	2
501	1	1	2
503	1	2	2
503	1	2	2
507	1	2	2
509	1	2	2
521	1	1	2
523	1	1	2
535	1	2	2
537	1	2	2
549	1	1	2
Low Ethics			**56**
			126

APPENDIX D: ANALYSES USING TOTAL PERCEIVED RISK

Analysis of Variance and Analysis of Covariance Results

One-way ANOVA with Dependent Variable (COMPLY)

	df	F	p-value
Intercept	1	1170.195	0.000
TOTAL_PER_RISK	1	0.021	0.422
Error	167		
Total	169		
R Squared = .000 (Adjusted R Squared = .006)			

2x2x2 ANCOVA with Dependent Variable (COMPLY)

	df	F	p-value
Intercept	1	481.702	0.000
GENDER	1	1.818	0.179
PFORCE	1	2.290	0.132
ETHICS	1	1.291	0.258
TOTAL_PER_RISK (ALL DOMAINS)	1	0.009	0.927
PFORCE * ETHICS	1	1.140	0.287
PFORCE * TOTAL_PER_RISK	1	0.502	0.480
ETHICS * PER_RISK	1	0.042	0.838
PFORCE * ETHICS * TOTAL_PER_RISK	1	0.004	0.947
Error	160		
Total	169		
R Squared = .049 (Adjusted R Squared = .002)			

VITA

Ashley Beckett Soliz, CPA

_____

Education
2002-2003   Master of Accountancy (December 2003)
University of Mississippi, University, Mississippi

1998-2001   BBA in Accounting (December 2000)
Post-graduate coursework in Finance (Spring 2001)
Delta State University, Cleveland, Mississippi

1997-1998   Millsaps College, Jackson, Mississippi

Teaching Experience
2009 – present   Instructor of Accountancy – Delta State University, College of Business
Cleveland, Mississippi
Financial Accounting (ACC 220), Personal Tax Planning (ACC 453)
Financial Accounting II (ACC 230), Federal Taxation I (ACC 451),
Federal Taxation II (ACC 452), Accounting Theory (ACC 610),
Managerial Accounting (MBA 515), CPA Review I and II (ACC 694 &
ACC 695) and Tax Research (ACC 650)

2007-2008   Instructor of Accountancy – Delta State University, College of Business
Cleveland, Mississippi
Managerial Accounting (ACC 320) and Advanced Accounting (ACC 451)

Fall 2006   Graduate Instructor - Managerial Accounting (ACCY 202); University of
Mississippi, Patterson School of Accountancy

Spring 2006   Graduate Instructor - Managerial Accounting (ACCY 202); University of
Mississippi, Patterson School of Accountancy

Fall 2005   Graduate Instructor - Principles of Accounting (ACCY 201); University of
Mississippi, Patterson School of Accountancy

Professional Experience

2007 – Present Delta State University, Instructor in Accountancy

1998-2009   Bookkeeper, Soliz Industrial Contractors, Inc.
       Responsible for all bookkeeping activities, including accounts receivable,
       accounts payable, bank reconciliation and tax preparation. Preparation of
       payroll, payroll tax returns, sales tax returns, corporate income tax returns,

2006 – 2007   Graduate Research Assistant – The AICPA Library Service

2001-2002   Staff Accountant, Jackson and Braswell, CPAs
       Bookkeeping, tax return preparation including individual, partnership,
       corporation and estate tax returns. Preparation of farm loan applications,
       financial statements and projections.

Presentations

Soliz, A.B. and Flesher, D. (2007). Accounting Ethics Education: the Status Quo and the
Proposals. *Presentation to the 2007 American Accounting Association Annual Meeting,
Chicago, IL, August 2007*.

Soliz, A.B. (2009). The Effects of Locus of Control and Tax Preparer Advice on Taxpayer
Compliance: An Experimental Investigation. *Presented to the 2009 American Accounting
Association Southeast Regional Meeting, Oxford, MS, April 2009*.