Comparing an Income Tax to a Consumption Tax and the Effects They Have on Individual Taxes and the Economy

Dissertation Manuscript

Submitted to Northcentral University

School of Business Administration

in Partial Fulfillment of the

Requirements for the Degree of

DOCTOR OF PHILOSOPHY

by

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San Diego, California

June 2017

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Comparing an Income Tax to a Consumption Tax and the Effects They Have on Individual Taxes and the Economy

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Abstract

Many taxers support a need to simplify the individual income tax system in the United States because the system is too complex. The problem that exists is that there is a negative impact on these individual taxpayers and the economy because the United States has an income tax system that has continued to increase in complexity. Consumption-base tax advocates have suggested that paying an indirect tax on new goods and services rather than a direct tax on income would have economic benefits for both the U.S. economy and individual taxpayers. A consumption tax would make the system simple, transparent, efficient, and equitable. Many such systems have been suggested with different political agendas expressed in support. With all these consumption tax systems explained, individual taxpayers are still confused as to which system is the best for them and the U.S. The purpose of this quasi-experimental quantitative study was to focus on a composite of individual taxpayers' tax returns to compare the income-based tax system to a consumption-based tax system to study the effects each system would have had on the individual taxpayers and the economy. Two questions were asked. The first question asked if a total projected consumption tax that could be collected would equal the income tax that was collected for a 15-year period. The second question asked if a total projected consumption tax that would be paid by individual taxpayers would be equal to the income tax the same taxpayers paid for the same 15-year period. The paired *t* test results for this study showed that it was possible for the U.S. government to maintain a collection of revenue neutral taxes under a consumption tax system and, at the same time, allow the U.S. taxpayers a reduction in tax.

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Chapter 1: Introduction

Many taxpayers support a need to simplify the individual income tax system in the United States (Amadi & Amadi, 2012; Andrews, 1974; Carbaugh & Ghosh, 2011; Correia, 2010; Hymson, 2013; Roach & Jens, 2012) and debates on this subject have been ongoing for more than a century (Roach & Jens, 2012). Some of these supporters, Andrews 1974), Auerbach (2012), Auerbach and Devereux (2013), Carroll, Joulfaian, and Mackie (2011), and Mirrlees et al. (2012) have continued to express their endorsement of a consumption tax. A consumption tax is a flat transparent percentage applied to the sales price of new goods and services and collected at the point of sale (Hymson, 2013).

Consumption-base tax advocates suggest that paying an indirect tax on new goods and services rather than a direct tax on income would have economic benefits for both the U.S. economy and individual taxpayers by making the system simple, efficient, and equitable (Andrews, 1974; Marcus et al., 2013). Changing the tax system to a consumption-base tax would simplify the system and make it more transparent (Hymson, 2013). Without the change, the Internal Revenue Service Tax Code (IRS Code) continues to grow and becomes more complex, adding to economic inefficiency (Razak & Adafula, 2013) for taxpayers. Compliance with the IRS Code is complicated, which costs taxpayers billions of dollars a year in dead weight expenditures (Correia, 2010; Jones, Thomas, & Lang, 2012). Marcus et al. (2013) estimated this figure to be $50 billion a year for individual taxpayers with an additional $100 billion each year for business taxpayers. These costs include purchasing software, hiring tax professionals, and tracking paperwork (Jones et al., 2012; Marcus et al., 2013). In addition to economic efficiency, a stronger economy would result from this change because, as noted by Carbaugh and Ghosh (2011), Foster (2011), Kaldor (1993), and Mirrlees et al. (2012), a consumption tax would

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promote U.S. economic growth by encouraging savings. A tax on income depresses the same growth by discouraging savings and work ethics. Additionally, a consumption tax would be more equitable in two ways, first by including taxpayers that previously evaded tax on income and second, by decreasing the budget deficit by reducing the funds needed by the Internal Revenue Service (IRS) to enforce collections and to educate taxpayers about the IRS Code (Amadi and Amadi, 2012).

To change to a consumption tax, numerous mainstream proposals have been suggested and reviewed (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). Hymson (2013) described five of the more popular examples, The USA Tax, a Value-Added Tax [VAT], The Fair Tax, McCaffery's Spending Tax, and The Hall Rabushka Flat Consumption Tax by explaining some of the pros and cons of each in relation to many economic and political agendas that surround a change. Per Mirrlees et al. (2012), even though these consumption tax proposals highlight political agendas to support a change, they have not respected the individual taxpayers' concern about how the same tax would directly affect them. Studies on individual tax returns for a consumption tax system have not been a focus (Boudreau & Dalton, 2013). Taxpayers are already complacent with the taxes they pay because they are disconnected from the flaws of the income tax system. These taxpayers do not know how a transparent consumption tax could reduce the negative tax impacts for them in a less complicated tax system (Hurley & Hetherington, 2013).

Background

The complexity of the national budget for the United States is a continuing topic of discussion with the leaders of this great nation. Some programs are cut, others are added, and funds are shifted to pay for other necessities as the economic climate changes from year to year.

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This has resulted in increased expenditures requiring increased collection of taxes. For example, the expenditures for the year 2000, the last year of President Clinton's period in office, were $2.2 trillion (Office of Management and Budget, 2000). By 2008, the last year of President G. W. Bush's time in office, these expenditures had increased to $3.02 trillion (Office of Management and Budget, 2008). Expenses increased again to an estimated $3.95 trillion in 2016 as Obama's Presidency concluded (Office of Management and Budget, 2016). To pay for increased government operations, tax revenue has increased (Amadi & Amadi, 2012). This was accomplished by increasing the tax base, increasing the tax rate, using social engineering techniques to change the tax laws, using the IRS Code to micro manage the economy, or a combination of each (Edwards, 2012). This continuous legislative juggling has a negative impact on individual taxpayers and their tax returns because it has resulted in a Federal income tax system that is too complex, extremely inefficient, and excessively expensive (Bird, 2013).

The income tax system is too complex. One of the reasons for the complexity of the income tax system is the continuous changing and expansion of the IRS Code. These tax regulations have increased from an estimated 27 pages in 1913 (CCH, 2013), to approximately 509 pages by 1939 and then to over an estimated 5,248 pages by 2013 (CCH, 2013). Throughout this span of changes, a magnitude of reference materials has also been created. The complex rules that exist in the IRS Code are further explained in publications for each section of the IRS Code. In addition, there are volumes of regulations and tax court cases published each year for use by the tax professionals around the U.S. (Razak & Adafula, 2013; Jones et al., 2012; Nelson, 2011). These additional references, when added to the whole, encompass a massive data set of income tax provisions that totaled more than 73,954 pages by 2013 (CCH, 2013; Edwards,

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2012). This data set increases each year making it impossible for the average taxpayer to keep up with the changing complexity of the IRS Code and the intricacy of the income tax system.

As the complexity of the IRS Code increases, so does the collection costs for the IRS and compliance costs for taxpayers (Nelson, 2011; Roach & Jens, 2012). The complex IRS Code causes confusion for taxpayers which causes mistakes in interpretation of the rules and sometimes intentional misreporting of income. This is evidenced by the increasing Tax Gap and the expansion of tax evasion that exists in the shadow economy (GAO-12-651T, 2012). These complications require increased educational efforts and increased enforcements efforts by the IRS agency (Nelson, 2011). This results in a need to increase the annual budget to operate the IRS. For the taxpayer, the changing complex IRS Code causes them to pay a fee to a tax professional for advice or to prepare their individual and/or business tax returns. In addition to seeking professional help, an estimated 6.6 billion hours of personal time that could be family time is spent by American taxpayers to keep track of the paper trail necessary to file their tax returns each year (Roach & Jens 2012). Too much productive time is lost gathering income tax documentation, interpreting income tax rules and regulations, and enforcing the law. The system needs to be simplified.

To simplify the income tax system, consumption tax advocates suggest getting rid of the complications that the income tax system has by adopting a consumption tax on retail sales and services. The income tax system is complicated, inefficient, and expensive (Bird, 2013). In contrast, the consumption tax system is simple, transparent, easy to pay by taxpayers, and easy to collect by retailers. Each time a retail good or service is bought the tax would be collected by the merchant. Taxpayers of the District of Columbia and forty-five other states already know this type of tax well since they pay a state sales tax each time they buy a good or service. Alaska,

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Delaware, Montana, New Hampshire, and Oregon are the only states that do not levy a sales tax (Mazerov (2009). With the tax system simplified and well-known, perhaps the legislative juggling and the negative impact on individual taxpayers could be shifted to a positive effect of cutting government spending and reducing the taxes needed from taxpayers.

Statement of the Problem

The problem that exists is that there is a negative impact on the economy and individual taxpayers because the United States has a complex income tax system rather than a transparent consumption tax. The income tax system is complex, inefficient, and expensive (Bird, 2013). Under the income tax system, U.S. economic growth will continue to be depressed because of the following five issues: (a) increased IRS Code regulations (CCH, 2013), (b) increased individual taxpayer compliance costs (Nelson, 2011; Roach & Jens, 2012), (c) continued depressed saving and work ethics (Carbaugh & Ghosh, 2011; Hurley & Hetherington, 2013; and Mirrlees et al., 2012), (d) tax evasion expansion (GAO-12-651T, 2012), and (e) increased IRS budget dollars (Amadi & Amadi, 2012). Supporters of the change to a transparent consumption tax system have explained structural economic and social welfare efficiencies of the new system as well as the many advantages and disadvantage of many of the political itineraries (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). Although comparing the two systems by highlighting the political agendas involved are necessary, Boudreau and Dalton (2013), Mirrlees et al. (2012), and Pagone, (2009) agreed that the consumption tax advocates have not respected the individual taxpayers' concerns about how the change would directly affect them. Without such attention, individual taxpayers become more disconnected from the need to change and remain complacent and more willing to stay with the flawed income tax

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system (Hurley & Hetherington, 2013) rather than change to a simple, efficient, and equitable consumption tax (Marcus et al., 2013).

Purpose of the Study

The purpose of this repeated measures longitudinal, quantitative study using a quasi-experimental design (Trochim, Donnelly & Arora, 2015), focused on a composite of individual taxpayers' tax returns to compare the income-based tax system to a consumption-based tax system and to study the effects each system has on the individual taxpayers and the economy. The repeated measures longitudinal study covered 15 years from 2001-2015 tax years. The tax collections needed to remain revenue neutral. In Phase I, a hypothetical consumption tax rate needed to achieve the revenue neutral income was computed. This was accomplished by using three steps. In the first step, the yearly income tax collections were computed using secondary research data obtained from government income tax financial statistics. The actual total income tax revenue collected for each longitudinal year was adjusted by the subtraction of IRS enforcement expenses spent to collect the taxes. This assumed that, in a consumption tax system, the IRS would no longer be needed for collection of taxes. Step two was to compute the total consumption funds available for taxing for the year by using secondary research data of financial statistics relating to the Gross Domestic Product (GDP) figures for each longitudinal year. GDP figures were obtained from the World Development Indicators (WDI) division of The World Bank (2017) and the 2017 update of the Bureau of Economic Analysis (BEA). These GDP statistics were used in this study to indicate the monetary value of consumption each year. Callen (2012) explained, "GDP measures the monetary value of final goods and services-that is, those that are bought by the final user. . ." (p. 1). In this study, every consumer purchase would be taxed except for human necessities of health care, shelter, and food prepared at home. Money

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spent on education and reading would also be exempt because investment in human capital is vital to our nation's growth because an increased knowledge-base will "propel economic growth and reduce poverty" (Peercy & Svenson, 2016, p. 141). Thus, in this study, education is considered a human necessity. The amounts for these human necessities were obtained from the annual aggregate expenditures data listed each year by the BEA. Along with these exemptions being subtracted from the GDP figures for each year, GDP was increased for consumption tax revenue sources that would be obtained from tax evasion (e.g. underground economy, or shadow economy). Schneider (2104) used Smith's 1994 definition of the underground economy as 'market-based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of GDP' (p. 4). The shadow economy estimates used were Schneider's (2014) evaluations of the shadow economy as a percentage of the GDP for each year. Step three of this phase was to compute the hypothetical consumption tax percentage needed for each longitudinal tax year to collect revenue that is revenue neutral to the income tax collected. This was done by dividing the adjusted income tax needed in the first step by the consumption funds available to be taxed in the second step. For Phase II, secondary data of a 100% composite of individual tax return information prepared by the IRS for each of the tax years was used in this repeated measure longitudinal study. To maintain taxpayer confidentiality, IRS reports the income tax information as a composite of all the individual income tax returns filed for each year. At the bottom of each year's individual tax return data, IRS noted the following: "Data combined to prevent disclosure of specific taxpayer information" (IRS, SOI Tax Stats-Individual Tax Returns, 2001-2015). Since the number of tax returns vary each year, so will the number used for each longitudinal year. However, each year was a composite of over 100,000,000 individual tax returns. In analyzing this secondary data, each individual tax return composite

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was converted to the consumption tax base by changing the income used in the IRS Code regulations to consumption income that would be used to buy goods and services. Once this was completed the income available for consumption was then used to figure the hypothetical consumption tax liability for each composite of individual taxpayers in Phase III. The conclusion of this repeated measures longitudinal study, with a quasi-experimental design (Trochim, et al., 2015) was to use a paired-samples *t*-test to compare what a composite of individual taxpayers would pay in a consumption tax system to what they paid in the income tax system for each specific year in the study. A paired-samples *t*-test is the observation of one sample that is compared with the exact sample after treatment of some kind (Nolan & Heinzen, 2016). This test was used to compare one group of taxpayers under the income tax system to the same group of taxpayers after treatment to simulate a consumption tax. This showed how a change from an individual income tax to a consumption tax would affect the amount of tax a group of individual taxpayers would pay compared to what they had paid for the years investigated. The tax liability in a consumption tax system was evaluated on the individual level which, as stated by Mirrlees et al. (2012), is a missing component in the study of a consumption tax revenue collection system for the United States.

Theoretical/Conceptual Framework Overview

The theoretical framework for the collection of revenue for government support consists of a maze of theories that cross the boundaries of different academic fields of literature. Although several of these theories are discussed on their own merits, these same theories mesh into a complex amalgamation of thought known as the philosophical framework of the U.S. tax system. As expressed by Musgrave (1959) and mentioned by Auerbach (2010) and Groves (1974), these theories are entangled into the interconnected whole and could have unexpected

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potential outcomes when being linked and used in the real world of collecting enough revenue to pay for U.S. government support. Since this study is a comparison of two types of tax, an income tax and a consumption tax, the theories discussed in this theoretical framework overview only looked at the attributes of a worthy tax system. In the economic/public finance literature there are three main theories that can be used to try to explain what a worthy tax system should be and why the system ought to be fair and not be too much into the pockets of taxpayers. Examples of these theories are Smith's (1776/2005) four maximis of taxation, Kendrick's (1939) ability-to-pay theory, and the benefits received principle by Lindahl (1919/1958). These theories are discussed in the order presented, starting with Smith's four maximis of taxation.

Smith (1776/2005) supported a limited government where taxes should only be levied that would benefit all by providing for national defense, justice, universal education, and good roads and communications. Smith (1776/2005) also noted that too much power of the tax collector could cause taxpayer rebellion. He encouraged tax transparency because confusion and doubt regarding one's tax liability could encourage disrespect of the system and promote dishonest behavior. To provide benefits and avoid corruption, Smith (1776/2005) advocated that the government should have a tax system that would follow four taxation maximis. These four maximis consist of *equity*, where every taxpayer should contribute to government support in proportion to what they earn, *certainty*, where the amount of tax liability should be well-defined and not subjective, *convenience*, where the rules should be simply and easy to understand, and *efficiency*, where there is the highest gain for the government at the lowest cost to the taxpayer. Even though the four maximis of taxation were a general fit for any tax system, Smith (1776/2005) did mention that a consumption tax, sometime known as an expenditure tax, would allow taxpayers to be responsible for the amount of taxes they would pay because each taxpayer

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could decide to buy or not buy the goods, thus letting each taxpayer choose his own convenience or inconvenience when paying a tax. Some economists, that is, Kaldor (1993) and Fisher and Fisher (1942), supported this assumption by promoting a consumption tax system because, for the most part, it is *equitable* because it is paid by taxpaying consumers that purchase goods and services that are taxed, *certain* because it is transparent and paid at the time of the purchase, *convenient* because the tax is straightforward and predictable, and *efficient* because not many resources are needed to collect the tax (Marcus et al., 2013). Even though a consumption tax system fits well within the general tax theoretical framework proposed by Smith, there are two other areas of thought presumed to be included in Smith's proposal that are important to the discussion of taxes but are subjective is nature and cause different views. These two areas of thought have become theories themselves. They are discussed next.

These two other areas of thought believed to be expressed by Smith (1776/2005) and expanded upon by others are the fairness doctrines of: a) the ability-to-pay theory (Kendrick, 1939), and b) the benefits received principle (Lindahl, 1919/1958). Both ideas were assumed to be mentioned by Smith (1776/2005) when he stated his first maxim of *equity*: "The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state" (p. 676). As one can see from his statement, Smith did not express either of these fairness doctrines, nor did he suggest a progressive tax system based upon them. Since the word *equity* is ambiguous and subject to interpretation, both the ability-to-pay theory and the benefits received principle emerged to justify and support a progressive tax in the current income tax system (Hagopian, 2011). Although both fairness doctrines are widely accepted by taxpayers, the ability-to-pay theory is the one most accepted

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because it is easy to understand (Kendrick, 1939). Defined simply within his definition of a fair tax system, Hagopian (2011) stated "A fair tax system is one in which those with the greatest ability to pay should pay the most" (p. 4). Dodge (2005) emphasized that the ability-to-pay theory does not relate to subjective utility but is usually "measured in nominal dollars" (p. 449). Unlike the benefits received principle, the ability-to-pay theory is simple because there is no controversy over what is meant (Dodge, 2005).

The benefits received principle is not as easy to accept as the ability-to-pay theory. In its simplest form, Hagopian (2011) defined the benefits principle as the "payment of taxes in return for benefits" (p. 4). With this definition in mind, the word *benefits* become the key word. Smith (1776/2005) advocated that the benefits provided by the government should be national defense, justice, universal education, and good roads and communications. Hagopian (2011) listed the payment for benefits a little differently when he mentioned paying for unalienable rights of life, liberty, and the pursuit of happiness. About these benefits he stated: "The American military and other protective agencies and institutions of government exist to protect and preserve these rights for all Americans equally, regardless of how rich or poor they are" (p. 4). Smith (1776/2005) advocated for a limited government that would benefit all "in proportion to the revenue which they respectively enjoy" (p. 676) with no mention of total financial stature. Irrespective of what the tax is based on or how it is computed, the main objective of the government is to receive support from its citizens by collecting the tax that is due. In addition to the economic/public finance literature theories just discussed, there is one theory, Allingham and Sandmo's (1972) tax compliance theory, which is based upon two economic theories that can be used to try to explain why taxpayers choose to support or not support the public good by paying or not paying their tax liabilities.

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The tax compliance theory is credited to Allingham and Sandmo (1972). Inspired by Mirrlees' (1971) economic theory paper on tax evasion, Allingham and Sandmo (1972) wrote their paper on tax compliance. They were the first to blend two theories, the expected utility theory (Neumann and Morgenstern, 1944) and the economics-of-crime model (Becker, 1968/1974), to formulate a tax compliance theory to explain why taxpayers choose to pay or not pay their tax liability. The expected utilities model was formally developed by Neumann and Morgenstern in their 1944 book *Theory of Games and Economic Behavior*. This theory is a decision theory that is used by rational individuals to maximize an expected value of a function over future expected outcomes. The second theory, the economics-of-crime model is credited to Becker in 1968. This theory assumes that most criminals, after weighing the risks and consequences of committing a crime, will react to different incidents in a rational way (Becker, 1968/1974). Combining these two theories to explain tax evasion was a phenomenal concept espoused by Allingham and Sandmo in 1972 and is usually used as a starting point in any discussion regarding tax evasion (Alm, 2012). Alm (2012) exemplified the combination of these two theories in Allingham and Sandmo's (1972) theory by stating:

> Here a rational individual is viewed as maximizing the expected utility of the tax evasion gamble, weighing the benefits of successful cheating against the risky prospect of detection and punishment, and the individual pays taxes because he or she is afraid of getting caught and penalized if he or she does not report all income (p. 7).

Yet, as noted by Alm (2012), taxpayers are not always rational. "The taxpayer is no longer seen simply as a potential criminal but as a potential client, one whose behavior depends upon his or her moral values" (Alm, 2012, p. 23). Decisions to pay or not pay one's tax liability are not only dependent upon the strength of a taxpayer's social attitudes of doing the right thing, but also

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upon their attitudes regarding risk, expected utility, and so much more. Each taxpayer is different with an infinite variety of tax related behaviors (Alm, 2012). The theoretical framework for the collection of revenue for government support will continue to grow and cross the boundaries of different academic fields of literature.

Research Questions

Historically, the need to simplify the current income tax system in the United States has been an ongoing debate for more than a century (Hymson, 2013). Different suggestions have been varied and range from simplifying the current system to changing the system all together (Hymson, 2013; Mirrlees et al., 2012). Consumption tax advocates (Boudreau & Dalton, 2013; Mirrlees et al., 2012; Pagone, 2009) suggest changing the system altogether to a consumption-based tax. In this type of tax system, the tax to be paid is the consumption tax percentage multiplied by the income available for spending. When considering a consumption tax, individual taxpayers should be able to compare their individual tax as an income taxpayer to their tax as a consumption taxpayer. To answer the questions below, this study used a paired-samples *t*-test analysis to test whether the hypothetical individual consumption tax liability for a composite group of individual taxpayers is different from the revenue neutral individual income tax liability originally paid by the same composite group of individual taxpayers.

Question 1. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in revenue neutral income for the U.S. government for the longitudinal years in question?

Hypotheses

$H1_0$. The U.S. Government who collects tax based upon consumption will collect revenue neutral tax, on average, based upon income—$H1_0$: $\mu 1 = \mu 2$.

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$H1_1$. The U.S. Government who collects tax based upon consumption will not collect revenue neutral tax, on average, based upon income —$H1_1$: $\mu 1 \neq \mu 2$

Question 2. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in the same amount of tax paid by taxpayers under the income tax system for the longitudinal years in question?

Hypotheses

$H2_0$. The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_0$: $\mu 1 = \mu 2$.

$H2_1$. The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_1$: $\mu 1 \neq \mu 2$.

Nature of the Study

The research for this study was a three-phase, repeated measures longitudinal, quantitative study using a quasi-experimental design (Creswell, 2014; Trochim, et al., 2015) that focused on a composite of individual taxpayers' tax returns that were filed with the IRS for 15 specific years. A comparison of the income tax returns filed each year to the same returns if filed under a consumption tax was the focus of the study. Creswell (2014) described a quantitative study as an experimental design where true experiments can be used or a less rigorous experiment format known as the quasi-experimental design. In the quasi-experimental design, nonrandomized assignments are used (Creswell, 2014). In this study, the statistical data of a composite of the income tax returns filed each year was obtained using secondary data that was compiled by the IRS. This design was used because Trochim et al. (2015) explained that, in contrast to more complicated research designs, a simplistic quasi-experimental design is simple,

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less cost evasive, and shows comparative similarities just as effectively as an experimental design. The nature of this study is a simple comparison similarity of the income-based tax system to a consumption-based tax system and the effects they have on individual taxpayers and the economy, keeping in mind that tax collections need to remain revenue neutral. The study encompassed 15 years of IRS data on composite individual tax return information. Thus, the study was a repeated measure longitudinal study as explained by Trochim et al. (2015). The converted individual income tax return population was consistent with a quasi-experimental design because the subjects were not chosen randomly. The population consisted of a composite of 100% of the actual individual tax returns filed with the IRS in each of the 15 years of the longitudinal study. Although the current income tax system to be changed is comprised of individual, corporate, estate, and trust incomes that are taxed at various levels to produce part of the funds needed by the United States government, this research was limited to the study of individual income tax returns. Individual tax returns were used because the problem is that there is a negative impact on individual taxpayers and the economy because of a complex income tax system being used rather than a transparent consumption tax. However, all the income taxpayers were used to compute the revenue neutral income that the U.S. Government needed each year. A 15-year period for the repeated measure longitudinal study was used to fall within the rage suggested by Trochim et al. (2015) for a longitudinal study. It was suggested that more than two years be used but not more than 20 years. Thus, 15 years of IRS data was used. Since the purpose of this study was to focus on individual taxpayers' tax returns to compare the income-based tax system to a consumption-based tax system, the evaluation of the income tax paid as opposed to the consumption tax that could be paid was deemed appropriate by the researcher. This was a within-groups design where the same individual tax return composite for each year was used for

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a comparison of the income tax liability to the consumption tax liability. A paired-samples *t* test was used. The tax liability in a consumption tax system was thus evaluated on the individual level which, as stated by Mirrlees et al. (2012), is a missing component in the study of a change to a consumption tax revenue collection system for the United States.

Significance of the Study

The findings of this study will benefit society because the type of a tax collection process plays a key role in government revenue collection in the economy. The rising costs of revenue funds collected in today's economy justify the need for a simpler, cheaper, and more efficient tax system. Thus, governments that apply the information derived from the results of this study would be able to substantiate either keeping the system as it is or support a change to a consumption tax system. Taxpayers will become more educated as to how a new consumption tax system would affect them. To view the possibility of a new consumption tax system, taxpayers would become more connected to the need to change the current tax system and less complacent with the flawed income tax system. For the researcher, the study will help uncover better ways to inform and help clients understand their tax situation using either tax system. Thus, taxpayers in general will be less confused about taxes and be able to understand their own tax situations in different tax systems.

Definitions of Key Terms

This definition of key terms list contains the definitions and explanations of key terms relevant to this specific study.

Actual income tax collected. The actual income tax collected is the total income tax revenue collected by year. These figures are collected from the IRS statistics entitled Table 6. Gross Collections, by Type of Tax, Fiscal Years 1960-2016 (IRS Data Book, 2016, p. 15). Total

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income tax revenue collected by the IRS for each year is broken down by business, individual, and estate and estate and trust income taxes with an aggregate total. This data is used to compute the total revenue neutral income needed to be collected for each year of the study.

Consumption funds estimate. Consumption funds estimate is the total funds available to be purchased by the consumer. The GDP figures are compiled by the U.S Government, namely the Bureau of Economic Analysis (BEA), a division of the U.S. Depart of Commerce. GDP measures the monetary value of final goods and services that are purchased by the consumer (Callen, 2012). Using the expenditure approach, the value of GDP would be the value of all the purchases of consumer products and services by individuals, companies, and government units (Callen, 2012). This also includes purchases of goods and services made by foreigners visiting the country. Thus, visitors to the U.S. will help pay the tax which will decrease what the American taxpayer would need to pay (Callen, 2012).

Consumption tax. A consumption tax is a flat transparent percentage applied to the cost of goods and services which is collected only at the point of a final sale (Hymson, 2013). The retail sector would collect the tax and file monthly consumption tax reports to pay the collected consumption tax to the Federal Government. There are two varieties of consumption taxes, namely a retail consumption tax and a Value-Added Tax (VAT). Five examples of consumption tax systems are: (a) The USA Tax, (b) VAT, (c) The Fair Tax, (d) McCaffery's Spending Tax, and (e) The Hall Rabushka Flat Consumption Tax (Hymson, 2013). Each is defined in this definition of key terms list.

Federal individual income tax. The federal individual income tax system, used in this study, is only a part of the U.S. tax revenue collected by the IRS. In addition to individual income tax, the other revenue collected by the IRS is obtained from self-employment tax,

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corporate income, estate transfer tax, gift tax, and excise tax. Federal income tax is reported by taxpayers on several different federal income tax forms. Form 1040 is the main individual income tax return filed by individual taxpayers (IRS, "Form 1040", 2015).

McCaffery's Spending Tax. McCaffery defined his spending tax proposal as ". . . a single, consistent, progressive spending tax: The Fair Not Flat Tax" (2006, p. 97). This consumption tax would not be paid at point of sale throughout the year but yearly by means of filing a family tax return. Documentation for wages, borrowed funds, and savings received from employers and financial institutions would be used as source documents to authenticate the needed information. This tax proposal would eliminate itemized deductions, the special capital gains tax, and the gift and estate taxes currently in the IRS Code. According to McCaffery (2006), the formula to compute a taxable consumption would be as simple as:

Wages + Borrowed Funds – Savings = Taxable Consumption

The tax rate to use for the taxable consumption would be progressive depending upon family size and spending dollars.

Optimal tax. An optimal tax system, because of its homogeneity assumption, is a linear tax system that is chosen that uses a specified set of constraints to maximize a social welfare need (Mankiw, Weinzierl, & Yagan, 2009). An example of an optimal tax system is a linear consumption-base tax on a mixture of consumption goods and services that is used for the support of state and local government entities (Kaplow, 2011).

Revenue neutral consumption tax percentage. The revenue neutral consumption tax percentage is a percentage used to compute the consumption tax. It is the percentage that is multiplied times the value of each purchase of a consumer good or service to compute the tax owed to the U.S. government. For it to be revenue neutral, the percentage must to high enough to

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ensure that the government funds collected each year for consumption will be the same amount of funds for each year to pay what the government had to pay for the same year.

Shadow economy. A shadow economy consists of concealed income earned by individuals and businesses to avoid paying taxes on such income (Buehn & Schneider, 2011). Wiseman (2013) added that the shadow economy consists of both illegal and legal activities that are hidden. Schneider (2014) agreed with Wiseman when he used Smith's 1994 definition as 'market-based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of GDP' (p. 4). The shadow economy, underground economy, illicit economy, and black economy are used interchangeably in the literature and are defined the same as the shadow economy referred to in this study.

Shadow economy size. The size of the underground economy for different countries, including the U.S., have been estimated by Friedrich Schneider and his colleagues for several years. He uses a unique data set along with the Multiple Indicators and Multiple Causes (MIMIC) estimation method to estimate and compare the shadow economies of 162 countries. His estimations are calculated as a percentage of each country's reported GDP. The shadow economy figures of these countries have not been captured in the countries' GDP calculations. Thus, they are an addition to the size of the GDP for each country. Schneider's (2014) percentage estimates for the U.S. are used in this study.

Tax evasion. Tax evasion is committed by those who illegally avoid paying taxes that in turn makes it harder for the government to provide public services needed and paying the nation's debt (Cebula & Feige, 2012). Tax evasion can consist of several different acts by taxpayers in the attempt to avoid of paying taxes. Three examples of the many that exist are: a) a taxpayer may not file an income tax return at all, b) a taxpayer may file an income tax return but

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not report all the income earned, or c) a taxpayer may report an incorrect tax liability by making a mistake in the interpretation of the law (Rupert et al., 2015).

Tax gap. Mazur and Plumley (2007) defined the tax gap as the true tax liability reported by and due from tax collections that are not paid on time or collected later either voluntarily or by Internal Revenue Service (IRS) collection efforts. The tax gap is studied by both the IRS and the Government Accountability Office (GAO). Both government agencies study the gap and ways to reduce its size. The figures for the tax gap are reported by the GAO and include data regarding income tax from individuals, corporations, estates, and trusts plus gift taxes, estate transfer taxes, excise taxes, and self-employment taxes (GAO-12-651T, 2012).

Tax gap estimation. Yin (2012) explained the IRS uses three information sources to estimate the total tax gap. The tax gap estimation is divided into three distinct categories namely, (a) underpayment gap, (b) non-filing gap, and (c) underreporting gap. Yin (2012) explained the three categories. First, the underpayment gap is the most accurate since it is computed by subtracting the tax amounts collected from the tax amounts reported. Second, the non-filing gap is an estimation using data obtained from the U.S. Census Bureau and based upon a model using-aggregate demographic and economic statistics. Finally, the underreporting gap is estimated by using annual audit data of randomly selected taxpayers and issues.

The Fair Tax. The Fair Tax is a retail sales tax that is supported by the proponents of The Fair Tax which is a 501(c) non-profit, non-partisan organization called American for Fair Taxation (Walby, 2014). The Fair Tax was first introduced to Congress in 1999 and introduced again as the Fair Tax Act of 2011 to the 112th Congress (Hymson, 2013).

United States income-base tax system. Part of the current tax system of the United States is income-based. Each citizen, business, estate, and trust is taxed on the income earned

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and buys consumer goods with after taxed dollars. If tax is withheld out of income, everything purchased with these pre-taxed dollars is thus taxed (Edwards, 2001). Rupert et al. (2015) explained the history of the income tax system. The first income-base tax on individual income was enacted in 1861 to finance the Civil War and was repealed at the end of the war only to be enacted again in 1894 and ruled unconstitutional in 1895. In 1913, the U.S. Constitution was ratified to allow the collection of taxes on income.

United States tax collection sources. Federal tax collections include all sources of tax revenue that is collected by the IRS. These sources include the following tax categories: 1) income from business entities, 2) income for individuals, 3) income from estates and trusts, 4) self-employment taxes, 5) estate transfer taxes, 6) gift taxes, and 5) excise taxes (IRS, "IRS Data", 2015). For this study, only the income sources of tax from businesses, individuals, estates, and trusts are relevant.

Value Added Tax (VAT). The VAT (aka a National Sales Tax) is a consumption tax supported by Citizens for an alternative Tax System (CATO), Billy Tauzin (R-LA) and Rep. Dan Schaefer (R-CO), (Gale, 1999; Mikesell, 2000). The VAT is a tax percentage added at each stage of the product production process and paid when the final consumer pays for the good or service (Hymson, 2013).

Summary

Even though there is a negative impact on individual taxpayers and their tax returns because the United States has an income tax system, taxpayers are reluctant to change the system because they have become complacent with the current income tax system (Hurley & Hetherington, 2014) and confused about changing to a new system such as a consumption tax. Those who support a consumption tax express confidence that a consumption tax system is a

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revenue collection system that is simpler, more efficient, and more equitable for both the government, the individual taxpayer, and the U.S. economy (Andrews, 1974; Marcus et al., 2013). These consumption tax advocates believe economic benefits would be the result of taxing goods and services at point of sale rather than keeping the complicated, inefficient, and expensive income tax system that exists now (Bird, 2013). Regardless of the tax system in place, each taxpayer's decisions to pay or not pay a tax is dependent upon the strength of the individual's many social behaviors. These behaviors include viewpoints of doing the right thing, attitudes regarding risk, and the expected utility of each action (Alm, 2012). The maze of theories that exist in the theoretical framework for the collection of taxes demonstrates what a worthy tax system should be and how taxpayers' beliefs and behaviors have an impact on how much tax is collected. The theories discussed, Smith's (1776/2005) the four maximis of taxation, the ability-to-pay theory (Kendrick 1939; Smith, 1776/2005), the benefits received principle (Lindahl, 1919/1958), and the tax compliance theory (Allingham & Sandmo, 1972), are only a few of the theories that mesh into a complex amalgamation of thought known as the philosophical framework of tax collection. These theories are entangled into the interconnected whole and could have unexpected potential outcomes when being linked and used in any tax system (Auerbach, 2010; Groves, 1974; Musgrave, 1959). Neither the tax theories in the philosophical framework of tax collection nor the political agendas needed to support a change to a consumption tax system will be the focus of this study. The proposed research for this study was a three-phase, repeated measures longitudinal, quantitative study using a quasi-experimental design (Creswell, 2014; Trochim, et al., 2015) that focused on a composite of individual taxpayers' tax returns. As suggested by Boudreau & Dalton (2013) and Mirrlees et al. (2012), a

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study on individual taxpayers and their tax returns to show a change from the income tax system to a consumption tax system is the study that is needed. This is that study.

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Chapter 2: Literature Review

The purpose of this three-phase quantitative study using a quasi-experimental design (Creswell, 2014; Trochim, et al., 2015) was to focus on individual taxpayers and their tax returns to study a simple comparison similarity of the income-based tax system to a revenue neutral consumption-based tax system from the point of view of the individual. The following literature review begins with an overview of the documentation process followed by a brief review of the theoretical framework of public finance and taxpayer behaviors that form the complex amalgamation of thought known as the philosophical framework of the U.S. tax system. The next section includes a brief discussion of changing the income tax system by using a complete overhaul of the income tax, changing the system to a consumption tax system, or by keeping the income tax system as it is with status quo changes. This section is followed by a brief history of revenue collection in the U.S which shows that both consumption tax and income tax systems have been used to supplement each other to support government expenses. The differences between income tax and consumption tax follows. The next main section includes an analysis of why the income tax system needs a change where the weaknesses of the income tax system and the notion that the income tax system discourages economic growth are the topics of discussion. Following this analysis is the next three sections of the literature review which are: worthy tax policy issues, evidence of tax evasion, and voluntary compliance concerns. Following these three sections is a discussion of mainstream tax proposals, which include the following five: a) The Unlimited Savings Account, b) Michael Graetz's Value-Added Tax (VAT), c) The Fair Tax, d) McCaffery's Spending Tax, and e) The Hall/Rabushka Flat Consumption Tax. Following the mainstream tax proposals is a discussion regarding the National Retail Sales Tax (NRST) versus

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National Consumption Tax. Finally, prior to the chapter summary, there is a discussion entitled why change to a consumption tax system.

Documentation

The many sources used in this literature review were acquired from a literature search that included Google Scholar, GAO website, IRS website, IRS Statistics of Income (SOI), Bureau of Economic Analysis (BEA); a division of the U.S. Department of Commerce, World Bank, International Monetary Fund (IMF), income tax think tanks, search engines and the following data bases included in the Northcentral University Library: EBSCOhost, ProQuest, Science Direct, and SAGE. All references used in this literature review are cited and itemized in the reference list of this paper.

Theoretical Framework

Economic/public finance theories related to taxes in the U.S. are a part of the vast social science discipline of economics. Economic theories analyze and explain the production, distribution, and consumption of goods and services in the nation. The public finance section deals explicitly with the balancing of government revenues and expenditures to achieve suitable effects for most its citizens. Both disciplines also contain theories that explain choices that can and are made by individuals. In this study, four examples of these theories, out of many, that analyze and explain the economics of taxes are briefly discussed. The theories discussed are: a) the four maximis of taxation, b) ability-to-pay theory, c) benefits received principle, and d) economic theory of compliance. These theories are discussed in the order just stated with the first being the four maximis of taxation.

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Four maximis of taxation. The set of four maximis of taxation was devised by Adam Smith in 1776 to explain taxes in general. The first of the four maximis is commonly known as equity and is stated by Smith (1776/2005) as:

1. The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state (p. 676).

Although this statement does not say that the wealthy benefit more from government and should pay more, it is often used as the premise for a progressive tax where the tax rate increases with the increase in income rather than staying the same tax rate throughout. In addition, both the ability-to-pay theory and the benefits received principle are extensions of this maxim to interpret Smith's meaning.

The second of the four maximis is commonly known as certainty and is stated by Smith (1776/2005) as:

2. The tax which everyone is bound to pay, ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person (p. 676).

This maxim is commonly known also as transparency and is understood to mean that the tax liability should be clear as to the amount, when it should be paid, and the way it should be paid. Smith (1776/2005) indicated, that without this clarity, the uncertainty encourages disrespect of the system which could lead to corruption and tax evasion.

The third of the four maximis is commonly known as convenience and is stated by Smith (1776/2005) as:

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3. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it (p. 677).

Smith (1776/2005) suggested that the system should not be overly complex. A tax liability should be straight forward and predictable. He also indicated that the taxpayer, while paying for goods or services that are taxed, would have a choice about paying taxes. He said: "As he is at liberty too, either to buy or not to buy, as he pleases, it must be his own fault if he ever suffers any considerable inconveniency from such taxes" (p. 677). Like number two, this maxim is sometime linked to the concept of transparency.

The final maxim of the four maximis is commonly known as efficiency and is stated by Smith (1776/2005) as:

4. Every tax ought to be so contrived, as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state (p. 677).

For this maxim, Smith (1776/2005) further explained that the tax collection costs should be kept to a minimum. He indicated that if too many resources are required, the collection costs will increase and there would be a need to raise the tax rate to cover the additional costs. This could, like for maximum number two, cause dissention and mistrust of the system leading to increased tax evasion.

Although these maximis may seem outdated due to the year they were created, they are still relevant today. In 2001, the AICPA, known as the major governing body for the accounting profession, used Smith's (1778/2005) four maximis as a model to draft their own set of administrative principles that make up a strong tax policy. This AICPA tax policy was reviewed

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again in 2015 and remains the same as it was when first drafted. The same maximis of equity, certainty, convenience, and efficiency were used in the AICPA tax policy and a reference to the ability-to-pay concept was also indicated as part of the first maxim of equity.

The ability-to-pay theory. The ability-to-pay theory of taxation is the primary philosophy regarding a fairness doctrine for the income tax system in the U.S. It is also the main premise that gives rise to a progressive tax structure where there is a redistributive power allowed by the government. A higher tax rate is progressively assessed on higher income. This progressive tax is also called horizontal equity (Dodge, (2005). Kendrick (1939) explained the acceptance of this fairness doctrine by saying: "The phrase 'ability to pay' has a good and honest sound. It says that money for public expenditures should come from 'him that has' instead of from 'him that hath not'. Who could oppose such a principle?" (p. 92). With the fairness doctrine assumed there is then the questions of what constitutes ability and what should be taxed. Most economists favor income as the taxing medium rather than the ownership of property or expenditures. Even Smith (1776/2005) in his first maxim defined abilities as "in proportion to the revenue which they respectively enjoy under the protection of the state" (p. 676). Taxing income, as per Lutz (1943), would be "a rational conception of ability, for the concept involves certainty of the amount of tax and convenience to the taxpayer" (p. 16). Yet, using the ability-to-pay theory to denote the fairness of the income tax system is subjective and subject to different values from different taxpayers. Even though different values of fairness exist, the redistributive power of the government under the progressive tax system constitutes the main usefulness of the ability-to-pay theory. The ability-to-pay theory remains the dominate philosophy regarding tax fairness (Kendrick, 1939).

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Benefits received principle. The benefits received principle, in the purist sense, would follow Smith's (1776/2005) first maxim where he states that contributions to the state should be in proportion to the income the payer receives. Smith's concept of a tax system is one that only supports national defense, justice, universal education, and good roads and communication. The tax system should be as limited as possible with no social engineering to complicate the rules. A newer meaning of the benefits received principle is that the benefits received should be the taxpayer's economic well-being that is due to the government's security and protection of the economy in which the taxpayer resides. (Dodge, 2005). Yet, this principle would be contrary to the tax principle where the taxes collected should be enough to pay the expenses of government that provide a common benefit for all. As noted by Kendrick (1939) the benefits received principle is vague with some benefit but not as accepted as the dominate ability-to-pay fairness tax doctrine.

Economic theory of compliance. Becker's (1968/1974) economic crime model and Von Neumann and Morgenstern's (1944/2007) ideas that risky situations cause rational choices have contributed to Allingham and Sandmo's (1972) economic theory of compliance. In their article on income tax evasion, Allingham and Sandmo (1972) explained that avoiding paying tax, by not declaring all or part of one's taxable income, is a decision that happens under an uncertain circumstance and may or may not happen because it depends upon a chance of the taxpayer getting caught. Thus, punishment in the form of a penalty may or may not become part of the equation. In their conclusion, Allingham and Sandmo (1972) mention that the unique model they used resulted in insights into the problem of tax evasion but no "interesting or reasonably simple results" (p. 338). In the conclusion to his article, Alm (2012) mentioned that every taxpayer is different, with different attitudes that evoke unique behaviors depending upon a multiple array of

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situations. To counter these unique situations, Allingham and Sandmo (1972) shared their insight that the system used could help discourage tax evasion. They mentioned that an income tax system is the best system to offer a redistribution of income but, in so doing, "offers much larger opportunities for tax evasion than commodity taxes do" (p. 338). A consumption tax system also offers more efficiency in the collection process by the IRS (Allingham and Sandmo (1972).

Changing the Income Tax System

Taxpayer attitudes are important both in managing the current income tax system and looking toward the future for a change if needed. Since 1913, when an income tax was implemented in addition to the already existing consumption tax, there has been debate after debate to simplify or overhaul the income tax part of the revenue collection system in the United States. Since the income tax system was enacted permanently in 1913, and even before when it was temporary, the rules and regulations of tax collections have changed as needed. The U.S. income tax part of the system has become a complex maze of laws, interpretations, and court cases (Razak & Adafula, 2013; Jones et al., 2012; Nelson, 2011) all to raise tax dollars to support federal government spending (Razak & Adafula, 2013; Roach & Jens, 2012). McCaffery (2006) stated ". . . our tax system is a disgrace, and has been so for decades. The way we tax is complicated, inefficient, and unfair" (p. 1). Consumption tax advocates, examples being Andrews 1974), Auerbach (2012), Auerbach and Devereux (2013), Carroll, Joulfaian, and Mackie (2011), and Mirrlees et al. (2012), support McCaffery (2006) and suggest an overhaul to change the direct tax on income to an indirect tax on consumption. Andrews (1974) and Marcus et al. (2013) suggested that implementing an indirect consumption tax would correct the complex direct income tax system to a simple, efficient, and equitable tax collection system for the U.S. The system would become transparent again for the taxpayer. Changing the whole tax collection

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system and the need for a change has become the parts of the ongoing debate. Regardless of which issues are the preferences of individual taxpayers, these taxpayers deserve to know how the change will affect them. Throughout this paper these issues about changing the income tax system back to solely a consumption tax system will be discussed. A brief history of the revenue collection system in the U.S. will be discussed first, followed by the differences between the two systems, the weaknesses of the current income tax system, and the pros and cons of a consumption tax system. Finally, individual taxpayer attitudes about a change will be discussed followed by a conclusion to this chapter.

Brief History of Revenue Collection in the U.S.

It should be noted here that the history of the revenue collection process in the United States is vast, not only regarding the time frame for the rules and regulations, but also the social engineering used to change the IRS Code, the economic conditions of the country, and the individual attitudes of taxpayers during all the changes that take place. With this said, the corresponding literature on the subject has been repeated many times by thousands of authors throughout the years. Although this information has been cited to the authors used in this paper, many more that have not been cited should also be applauded for their information.

Some form of tax needs to be paid by citizens to support Government operations. A long standing British tax system of collecting these revenues for government support consisted of consumption taxes known as excise and duty taxes (Groves, 1974). For close to 90 years in the United States this British tax system was the model used to obtain government revenue using protective tariffs and excise taxes on such commodities as alcohol, tobacco, and tea (Fahey, 2014). Occasionally, funds were obtained from the sale of public land or from borrowing. Eventually, when extraordinary economic events, namely wars, caused deficit situations that

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even adding to or increasing the consumption taxes could not cover, government officials turned to adding income taxes from the citizens as a solution. In the beginning these deficit situations were short lived and so were the income tax burdens on society. Eventually, however, the tide shifted to where the income tax system become permanent and the consumption taxes, although still important, existed in the shadows. To understand how this shift happened a brief background on the history of the income tax is important.

The first income and inheritance tax system was proposed in 1813 (Fahey, 2014), during the War of 1812. Normal tariffs were increased, and, as Pollack (2014) explained: "Congress enacted new taxes on land, dwellings and slaves, as well as excise taxes on carriages, refined sugar, alcohol, and other luxury commodities (including a duty on imported salt)" (p. 3). The funds fell short of raising enough to support the war effort (Fahey, 2014). The income and inheritance tax system proposed was not enacted since the war ended before the legal process of the government could be completed to approve the act (Fahey, 2014). As noted by Pollack (2014), this income tax plan would be the precursor to the first income tax system enacted in 1861 to help pay for the extraordinary expenses of the Civil War. Both the Houses and President Lincoln approved the income tax legislation on August 5, 1861 (Pollack, 2014). The initial details of the new income tax system enacted to supply additional funds to support the Civil War effort were as follows:

- 3% on income above $800,
- 1.5% on interest income from security investments, and
- 5% on income of citizens living outside the United States (IRS, 2015; Pollack, 2014).

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These details were revised however when the enactment was suspended shortly after being enacted to add additional taxes to pay for an administration organization to collect the tax. A study had been done regarding the tax to be collected and it was concluded that the income tax proposed would create a deficit because the expenses to collect the tax would be more than the income collected. The income tax details were revised and the income tax system reenacted on July 1, 1862 (IRS, 2016). The office of the Commissioner of the Internal Revenue, a division of the department of the Treasury, was established to collect the tax (IRS, 2016). The collection staff of the IRS consisted of the Commissioner and three staff collectors which quickly increased to an additional 3,879 civilian employees (Pollack, 2014). The new income tax plan details were changed to include the following:

- 3% tax on income, profits, and gains above $600 on worldwide income,
- 5% tax on income more than $10,000,
- 3% ad valorem tax on certain manufactured goods, gross receipts on corporations, namely rail roads, banks, trust companies, and insurance companies,
- a national inheritance tax system, and
- backup withholding on government salaries, interest, and dividends (IRS, 2016).

Although the first income tax system raised funds to add to the consumption tax funds, the collections were modest (Pollack, 2013/2015). To raise more money to support the cost of the Civil War, again, a revision of tax system was needed. In addition to raising percentages and lowering exemption amounts, an experiment using progressive income tax rates was added (Blum & Kalven, 1952). This tax revision became the first progressive income tax causing a higher rate of tax on higher levels of income (Pollack, 2014). Even though at the time a progressive tax was not widely accepted, due to the emergency necessity of the war, the

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progressive tax was not questioned (Blum & Kalven, 1952). This revision was enacted into law on June 30, 1864 and was due to be repealed at the end of the war. The following tax changes were made:

- 5% tax on incomes above $600,
- 7.5% tax on incomes above $5,000, and
- 10% tax on incomes above $10,000 (IRS, 2016).

With the war over in 1865, political resistance increased and revenues declined (Pollack, 2013/2015). The income tax had helped, but, with the nation still $2.3 billion in debt (Pollack, 2014), Congress decided to pay the debt by extending the income tax system until 1872 (IRS, 2016; Pollack, 2014; Pollack, 2013/2015). During the extended time, to pacify citizen demands, the income tax percentages were reduced and the exemption amounts raised on two separate occasions, once in 1867 and then again in 1870 to lower taxes (Pollack, 2014). In 1872 the Civil War income tax was repealed (IRS, 2106). Once again, the government of the United States was supported by consumption taxes (Pollack, 2014; Pollack, 2013/2015).

As the U. S. Government grew during peace time, more and more revenue was needed to support government expenditures. Adam Smith (1776/2005) warned society about governments needing funds when he stated: “They are themselves, always, and without any exception, the greatest spendthrifts in the society” (book 2, chapter 3, p. 142). Groves (1974) expanded upon this concept by stating: “. . . governments spend other people’s money and lack the self-interest motive” (p. 17). The U.S. government was growing along with its budget. Pollack (2013/2015) explained the dismal U.S. budget situation from 1890-1894. By 1890, the government had grown to have a billion-dollar budget and the 51st Congress was named the Billion Dollar Congress. In addition, to make matters worse, close to a $70 million deficit was expected by the year 1894.

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To pay these expenses, the tariff and excise taxes were continually on the rise with some reaching as high as 50% (Pollack, 2013/2015). To collect more tax revenue there were two solutions suggested. The first was to reinstate the sugar tariff that had been cancelled years before and the second was to consider restoring the income tax system to raise the funds needed. It was decided that reinstating the sugar tariff would put further hardships on the working class and thus, the only equitable and fair thing to do would be to reenact an income tax system for a brief period. The result was the Revenue Act of 1894 (aka Wilson Tariff Act) which included marginally reduced tariff taxes and the new income tax (IRS, 2016). The details of the income tax portion of the Act was as follows:

- Time period of 5 years,
- 2% tax on Individual gains, profits, and income over $4,000, and
- 2% tax on profits of all business entities in the U. S. (IRS, 2016)

This income tax was short lived because it was ruled unconstitutional by the Supreme Court in the spring of 1895 after existing for only one year (IRS, 2016; Pollack, 2013/2015). In the Pollock vs. Farmers Loan and Trust Company case, the tax was ruled a direct violation of the apportioned requirement for tax collections stated in the constitution and the income tax was declared unconstitutional and overturned (Groves, 1974; Pollack, 2013/2015; Terrell, 2015). The tariff reductions in the act remained and the country went back to the status quo of collecting consumption taxes.

This does not mean that debates about getting the income tax back were quiet. There were two solutions available to cause a reinstatement of the income tax system. One was to wait for the Supreme Court to change its mind and the other was to amend the U.S. Constitution. Neither solution seemed viable. Yet, the debates continued and in July of 1909, nearly 14 years

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after the income tax was overturned, a new income tax proposal was drafted and the needed proposed Sixteenth Amendment to the Constitution was sent to the state legislatures for ratification (Pollack, 2013/2015). This new proposal was an income tax system that allowed Congress to tax without regard to the population of each state (Terrell, 2015). It took another four years until it was ratified by enough states for it to become accepted on February 3, 1913 and another eight months of debate regarding the tax that should be levied before consensus was reached. President Wilson signed the Revenue Act of 1913 (aka the Underwood-Simmons Act) into law on October 3, 1913 (Pollack, 2013/2015). The United States had a new income tax system supported by the Constitution that still exists today. In comparison to the previous income tax systems, the details of this new progressive income tax were follows:

- 1% tax on corporation income with no exemptions,
- 1% tax on single individual income above $3,000,
- 1% tax on married couple income above $4,000,
- 1% surtax on income above $20,000, and
- 6% surtax on income above $500,000 (IRS, 2016).

The income tax of 1913 is still in existence today. In the beginning, the income tax system was viewed by citizens of the U.S. as a suitable addition to consumption tax for raising support for government operations. Tariffs and excise taxes were lowered, corporations were paying tax, and the progressive tax rules introduced meant that the less fortunate individuals paid less tax or, in many cases, none (Fahey, 2014). This was a short-lived view, however, since the government continued to grow and deficits needed to be paid. In addition to the fluctuating consumption tax percentages, income exemptions were reduced, tax percentages increased, and, the progressive individual income tax became a tax on the masses (Blum & Kalven, 1952;

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Fahey, 2014). Consumption taxes were no longer the predominant tax system in the U.S., the income tax was here to stay. With both types of tax being part of the revenue collection system in the U.S., knowing the difference between the two and how each fit into the formation of a worthy tax policy is important to understand many of the issues in the debate regarding changing the income tax system back to solely a consumption tax system.

The Differences between Income Tax and Consumption Tax

As seen in the brief history of the revenue collection process in the U.S., two types of taxes were used to support government operations. The first was a consumption tax and then, in times of extraordinary needs, the income tax was added. Even though both methods of revenue collection suffice to meet the objectives of raising money and both fit into the philosophical world of taxes, they are different in how they fit into tax philosophy. Knowing what these differences are has a substantial impact on understanding tax issues and the debate of whether to simplify or overhaul the income tax part of the revenue collection system.

There are two methods of taxation, one known as an indirect tax on consumption and the other as a direct tax on income. The indirect method taxes transactions such as the buying of goods and the direct method taxes income of legal beings such as individuals and corporations (Kaldor, 1993). Each method of collecting taxes is unique but they both fit within the concepts of what a worthy tax should be and how taxpayers should react to being taxed. Within the economic/public finance, and psychological literature regarding revenue collection by governments, theories of behavior exist that form the philosophical tax framework by explaining what characteristics a worthy tax policy should have and why taxpayers make the choice to pay or avoid paying taxes (Becker, 1968/1974; Lindahl, 1919/1958; Musgrave, 1959; Smith, 1776/2005). These economic theories of what a tax system's structure should be consist of Adam

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Smith's (1776/2005) four canons of taxation, Kendrick's (1939) ability-to-pay theory and Lindahl's (1919/1958) benefits received principle. Musgrave (1959) a public finance economist, in his attempt to combine these economic theories and the practice of good government, cautioned that even these well thought out theories could have unexpected potential outcomes when used (Auerbach, 2010; Groves, 1974). Perhaps, tax policy could be the issue. As noted by Luttmer and Singhal (2014), ". . . the key policy parameters affecting tax evasion are the tax rate, the detection probability, and the penalty imposed conditional on the evasion being detected" (p. 149). Or, the choice of paying or not paying taxes could be just as simple as the taxpayer choice based upon individual attitudes of family, peer support, and cultural norms without regard to any of the economic theories (Luttmer & Singhal, 2014). In addition to the economic theories, there are two psychological theories of behavior that explain taxpayers' choices to pay or not pay taxes. These theories included Von Neumann and Morgenstern's (1944/2009) expected utility theory and Becker's (1968/1974) economic crime model. When exploring the change from the current direct income tax to an indirect consumption tax in the U.S., or just looking at each system individually, it is important to look at this maze of theories that make up the general philosophical tax framework.

Adam Smith (1776/2005) presented four canons of taxation, namely equity, certainty, convenience, and efficiency to explain the characteristics of a worthy tax policy that would support a government to pay for national defense, justice, universal education, and good roads and communications. Mirroring Smith's four maximis, the American Institute of Certified Public Accountants (AICPA), the major governing body for the accounting profession, endorses their own 10 guiding principles of a good tax policy (AICPA, 2001; AICPA, 2015; Nellen, 2012). The first principle is equity. An equitable tax system should provide a structure where every

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individual contributes to support government funding in proportion to the income they can spend (AICPA 2015; Pagone, 2009; Smith, 1776/2005). This support is explained by two different economic theories, the ability-to-pay theory (Smith 1776/2005; Musgrave, 1959) and the benefits received principle Lindahl, 1919/1958). Both of these theories support a progressive tax system where wealthy taxpayers pay more than those with less because the wealthy have more to lose and thus deserve more protection (Hagopian, 2011). A counter argument regarding a progressive tax system and protection is often made that protection relates to national defense and that a life should be valued the same whether the individual is rich or poor (Hagopian, 2011). Regardless of whether one believes in a progressive tax system or not, transparency of what is owed by each taxpayer to pay his share should not be in question.

This second principle of transparency is certainty. The tax liability should be certain and not arbitrary to those paying. Thus, the transparency of the tax payment should be known in advance and should be clear as to how to calculate the tax, when to pay the tax, and where the tax should be paid (AICPA 2015; Pagone, 2009; Smith, 1776/2005). If a taxpayer is uncertain as to whether to pay or not, Allingham and Sandmo (1972) explained that Becker's 1968/1974 economic crime model would apply to their choice since taxpayers usually try to maximize their personal utility (Brizi, Giacomantonio, Schumpe, & Mannetti, 2015). Compliance with the law, including tax law, depends upon one's logical choice of taking the risk or paying the consequence set forth by the enforcement efforts of those working for the government (Alm & Finlay, 2013).

Intertwined with the economic crime model (Becker, 1968/1974) and the economic theory of compliance (Allingham & Sandmo, 1972) is the expected utility theory (EUT), refined by Von Neumann and Morgenstern (1944/2007). The combination of these theories explains that

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rational choices are made when risky situations exist (Just & Peterson, 2010). In relation to tax law, in many cases the marginal utility of wealth declines as wealth increases (Doerrenberg & Peichl, 2013). Although some of the economic literature finds EUT does not stand up in all situations, "EUT remains the dominant theory of choice under risk in applied economic research" (Just & Peterson, 2010, p. 16). Eisenhauer, Geide-Stevenson, and Ferro (2011) disagreed because when they studied taxpayer behavior, they concluded that taxpayers are not amoral maximizers of EUT but instead pay taxes because it is a social obligation that is the right thing to do. Yet, if the enforcement efforts by those collecting taxes are deemed to be too severe, the reverse could be true. Taxpayers might decide to rebel and just not pay (Radu, 2014). Yet, if paying the tax was convenient and considered efficient, taxpayers might consider compliance.

Smith's (1776/2005) and the AICPA's (2015) third canon, convenience, and fourth canon, efficiency, finish up the characteristics of a worthy tax system. Pagone (2009) explained that convenience exists if the tax liability payment and timing of the payment are easy for the taxpayers and effortless for those collecting the tax. The same author further explained that the tax rules should not be overly complex and the process of payment should be predictable and straight forward. Efficiency exists if the tax liability charged has the maximum gain for the taxing authority but a minimal cost for those paying the tax (AICPA, 2015; Pagone, 2009; Smith, 1776/2005). Tax collections should be kept as low as possible to allow taxpayers to keep as much of their income as possible for family necessities (Smith, 1776/2005). Graetz (2014) explained that support for a tax system is greatest when lower tax rates exist which is dependent upon the size of the tax base, the funds needed, and the number of items taxed.

Even though the principles of a good tax system discussed above currently relates to both a direct tax on income and an indirect tax on consumption, the for maximis are best achieved by

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the simpler indirect tax on consumption (aka an expenditure tax). The opinions of several major forerunners that supported a tax on spending, notably Fisher and Fisher (1942), and Kaldor (1993), used Smith's (1776/2005) four maximis of taxation to support their views. Congressman Ogden Mills (1921) was impressed by the views of economist Thomas Sewall Adams (1921) regarding changing the income tax system to a spending tax where Adams (1921) described how a consumption tax system could be successful because it would have a very low tax rate within a highly productive system where taxpayers would know exactly what to pay. Congressman Mills supported Adams by submitting a bill before the U.S. House of Representative (Kaldor, 1993). By 1942, Fisher and Fisher wrote their book on a spending tax (aka a consumption tax) and Morgenthau submitted his expenditure tax proposal before the U.S. Finance Committee of the Senate to expand the income tax system in the U.S. to help finance WWII (Graetz, 2014). Kaldor (1993) used many of the views of Fisher and Fisher (1942) and others to broaden the case for the consumption tax and stated that a better measure of taxpayers' ability-to-pay (Kendrick, 1939) would be the spending power of the taxpayer (Graetz, 2014). Graetz (2014) explained that the consumption tax only taxed spending and thus encouraged savings. Adversaries of consumption taxes in general expressed two opposing views, (1) that a tax exempting savings favor the rich and greater wealth accumulation and (2) a consumption tax favor the miser and punished the spendthrift (Graetz, 2014).

Choosing which side of the debate regarding an overhaul of the direct tax on income and using an indirect tax on consumption can be difficult. To choose a side, knowledge of the many issues that are all intertwined into the philosophical framework of taxes is needed. And, even with or without all this knowledge, the choice could be just a matter of taxpayer choice based upon individual feelings about family respect, social support, peer esteem, and cultural norms.

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Most taxpayers have used the income tax system long enough to have formed an opinion about it, and in many cases, may have become complacent about changing it because they are familiar with it (Hurley & Hetherington, 2014). Yet, "there is a clear public support for major tax reform: 71 percent of the American public believes that the U.S. tax system 'needs major changes and reform'. Only 5 percent think the tax system is 'working just fine'." (Dubay & Burton, 2015, p. 1). Thus, to gain knowledge about a change, the pros and cons of both systems will be presented, starting with the income system.

Why the Income Tax System Needs a Change

For over 100 years, the income tax system in the United States has been the main revenue collection system for use to pay for government operations. Before the income tax became a permanent collection system, consumption taxes, in the form of excise and tariff taxes, were the sole support of government operations and income taxes were used to supplement these simplistic taxes in times of war. As the U.S. government grew throughout peacetime, these additional funds became a necessity and by 1913, the income tax was made official by the ratification of the 16th Amendment of the Constitution which reads as follows: The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration. Since its inception, the tax system in the U.S. with the inclusion of the income tax has become a huge tax revenue system. Former IRS Commissioner Shulman said that the IRS is the top revenue producing agency of the government by working with over 200 million taxpayers and collecting over $2.5 trillion every year (Nelson, 2011). For the tax year 2015, these figures increased to where the IRS collected more than $3.3 trillion and processed over 243.3 million federal income tax returns (IRS, 2016). As successful as the IRS is at collecting tax revenue, the income tax part

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of the collection system is not without flaws. Many of these failings of the system will be detailed in the next section regarding the weaknesses of the income tax system in the United States.

Weaknesses of the income tax system. These sources include the following tax categories: 1) business income, 2) income for individuals, 3) income from estates and trusts, 4) self-employment taxes, 5) estate transfer taxes, 6) gift taxes, and 5) excise taxes (IRS, "IRS Data", 2015). For this study, only the income sources of tax from businesses, individuals, estates, and trusts are relevant for the change. Self-employment taxes, estate transfer taxes, gift taxes and excise taxes will remain in the system. This will make a system of diverse sources of tax collections for different government projects. According to Yin (2012), it is important to use various sources of tax revenue.

The IRS Code, initiated in 1913 by the ratification of the 16th Amendment of the U.S. Constitution, describes the tax base to be used for revenue collection as income. As noted by Norman B. Ture (Ture), the fact that the general term income has not been defined in the IRS Code, yet required as a tax base, is a concern (United States. Congress. Joint Economic Committee, 1997). Ture, the president of the Institute for Research on the Economics of Taxation, addressed the 105th Congress Hearing of the United States and said:

> From the time of the 16th Amendment to this very day no legislative effort has produced a workable concept of income, not because that is impossible, not because you cannot conceive what income is in the abstract and how that abstraction can be applied in the design of taxable income. (United States. Congress. Joint Economic Committee, 1997, p. 14)

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Since the time of inception, having such a tax system where, first, the source of collection is not clearly defined and then adding ongoing impromptu changing of the rules throughout the years, causes an income tax system that has developed into a collection system that, although lucrative, discourages what is needed for economic growth.

How the income tax system discourages economic growth. The income tax system in the U.S. does not promote economic growth because it taxes savings and destroys the work ethic (Carbaugh and Ghosh, 2011; Foster, 2011; Kaldor, 1993; and Mirrlees et al., 2012). Taxpayers change behaviors in response to tax policies (Laffer, Winegarden, & Childs, 2011). Near the 84th birthday of the income tax system in the U.S., Ture, in his statement before the 105th Congress of the U.S., explained why economic growth in the U.S. is a concern when he called the income tax system ". . . violently biased against saving and investment, against entrepreneurship, against risk-taking, against everything that you could identify as one of the wellsprings of economic progress. . ." (United States. Congress. Joint Economic Committee, 1997, p. 14). Jim Saxton, Chairman of the 105th Congress of the U.S. expressed the same sentiment as Ture about savings, taxing savings "undermines investment and long-term economic growth as well as personal responsibility" (United States. Congress. Joint Economic Committee, 1997, p. 2). Ture was not looking to change the income tax system to something else like a consumption tax, but he was looking at changing the system to produce a "common sense and practicable" (United States. Congress. Joint Economic Committee, 1997, p. 15) concept of income. Amadi and Amadi (2012) added two additional economic growth concerns, notably a growing shadow economy of an undeterminable size is the first. Measuring the size of the shadow economy is difficult, since the participants hide their activity. A growing IRS budget request is the second. Both concerns are intertwined in an ever-increasing deficit of revenue collections for the government. In the

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expanding shadow economy income tax is not paid on hidden income which, in turn, causes the need for additional enforcement funds needed in the IRS budget requests (Amadi & Amadi, 2012). As the shadow economy increases so does the IRS budget requests. Hashimzade, Myles, and Tran-Nam (2013) explained that the size of the tax evasion is "economically significant" (p. 941) which would cause increased collection efforts by the IRS. For example, the IRS budget request for 2014 was $13.358 billion (GAO-13-599R, 2013) and rose to $13.922 billion in 2016. These IRS budget requests also increase because the tax gap keeps increasing which necessitates additional enforcement, audit, and educational funds. The tax gap of uncollected taxes reported in January 2012 showed a negative tax collection in the amount of $450 billion for tax year 2006 which increased to $458 billion for the next period studied (IRS, 2016). Enforcement and educational actions by the IRS to collect income tax from the complicated, often hidden, concept of income continually causes economic growth concerns making the income tax system not a worthy tax policy.

Worthy tax policy issues. The main purpose of a government tax system is to collect enough revenue to support the payment of government expenses. Since these funds need to be collected from the people, a worthy tax policy to classify what government expenses should be paid and how to collect them efficiently both for the government and the taxpayers paying the tax has been debated for many centuries (Groves, 1974). Such a tax policy was described by Adam Smith (1776/2005) as one that would benefit all by paying for a limited government to support national defense, justice, universal education, and good roads and communications. This system, as noted by Smith (1776/2005), should contain the following characteristics: equity, certainty, convenience, and efficiency. These are known as his four maximis of a worthy tax policy. These same characteristics were mirrored in a tax plan guideline by the AICPA in 2001

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and re-confirmed in 2015. As stated by Hurley and Hetherington (2014) "unfortunately, the tax system in the United States has gone awry of these canons" (p. 1). Even though these characteristics become mingled in the complicated tax system of the U.S. it is important to know a straightforward definition of each as they relate to the tax collection system individually. The definitions for the four characteristics are explained next.

The first characteristic is equity which describes a tax system that ought to provide rules and regulations to collects a tax from every individual in proportion to the income they can spend (AICPA 2001, 2015; Pagone, 2009; Smith, 1776/2005). Smith (1776/2005) noted that the *proportion* part of the definition meant a progressive tax where the wealthy should pay more because they benefit more from government. Others take the phrase *every individual* wording literally to mean that all should pay something. For example, regarding national defense, all should pay taxes since all lives should be valued the same (Hagopian, 2011).

The second characteristic is certainty which describes a tax system that should be transparent which means that it should contain certain and not arbitrary tax payment rules to make it easy to compute the tax (Hymson, 2013). This makes the amount of the tax known in advance. When and where to pay the tax should also be clear (AICPA 2001, 2015; Pagone, 2009; Smith, 1776/2005). This would mean that the tax procedures (aka the IRS Code) should be easy to understand and thus not overly complex because uncertainty encourages corruption and noncompliance (Smith, 1776/2005).

Next, included in Smith's (1776/2005) and the AICPA's (2001, 2015) model of a worthy tax policy is the third characteristic of convenience. Pagone (2009) declared that convenience exists when collection is effortless for those collecting the tax because the transparency of the certainty characteristic for the taxpayer exists. Smith (1776/2005) noted that convenience meant

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that the tax is easily accepted by the taxpayer because it is straight forward and predictable with no questions about how to pay the liability owed. Smith (1776/2005) gave an example of a consumption tax on goods where the taxpayer would decide to buy or not buy which would let the taxpayer choose his own convenience or inconvenience.

Finally, the fourth characteristic, efficiency, exists if the tax liability charged has the maximum gain for the taxing authority but a minimal cost for those paying the tax (AICPA, 2015; Pagone, 2009; Smith, 1776/2005). To illustrate this characteristic, Smith (1776/2005) declared that tax collections should be kept as low as possible to allow taxpayers to keep as much of their income as possible for family. He also noted there is no reason to collect a tax where the resources to collect the tax are too high. These collection resources equate to enforcement costs that can collect taxes but that can also create enticements for taxpayers to avoid paying the tax (Eisenhauer et al., 2011; Radu, 2014; Smith, 1776/2005).

When looking at these simplistic definitions of the four characteristics of a worthy tax policy combined with the history of the tax system and the changes that have occurred since the U.S. has been collecting tax revenue, it is not hard to see why the current income tax system in the U.S. has strayed so far away for the basic economic principles of the past to become a tax system that is not a worthy tax policy. The characteristics of equity, certainty, convenience, and efficiency are all intertwined into an income tax system that is too complex and inefficient which causes a huge tax gap of reported but unpaid taxes and an excessive shadow economy of citizens that avoid paying taxes at all. The complexity and inefficiency of the income tax system will be discussed next.

Too complex. Much of the complexity of the IRS Code is caused by the members of the government trying to intermix the attributes of equality and efficiency in a highly complex effort

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to reduce conflicts regarding tax issues that exist between democratic political ideologies and economic philosophies of capitalism (Okun, 1975). Yrjanson, Paolillo, Loban, and Jackson (2011) expressed their views when they wrote "recent tax Code laws implemented around the nation are increasingly complicated, unpredictable and costly when misunderstood" (p. 1). Even Douglas Shulman, the 47th commissioner of the IRS, described the IRS Code as "highly complex and dynamic" (Nelson, 2011, p. 16). As the law changes, the IRS Code changes, the forms change, and all the relative instruction sheets change and the complexity increases.

The complexity of the IRS Code contributes to inefficiency (Razak & Adafula, 2013). The IRS Code has increased from 509 pages in 1939 to the updated version in 2013 of over 5,248 pages (CCH, 2013). In addition to the IRS Code, the income tax provisions that enhance the IRS Code with explanations and annotations consist of more than 73,954 pages (CCH, 2013). The complex IRS Code makes the system expensive because of billions of dollars of dead weight costs (Correia, 2010; Jones et al., 2012). Americans spend 6.6 billion hours a year tracking paperwork and still errors exist (Jones et al., 2012). In addition, many taxpayers purchase tax software or the services of tax professionals to help understand the complicated IRS Code (Roach & Jens, 2012). In contrast, the same complex IRS Code makes it easier for those opting to evade taxes (Hepp, 2013). One example is a $100 billion tax evasion of international income that is growing with the global economy (Jones et al., 2012).

The IRS Code is so complex, that many taxpayers hire professionals to prepare their annual tax returns and pay their taxes even though they don't know why or what they are paying (Roach & Jens, 2012). In addition, taxpayers do not understand that itemized deductions, a vital part of the IRS Code used to reduce tax liability for taxpayers, seldom result in the tax savings they expect (Roach & Jens, 2012). IRS studies the tax gap to figure out why billions of dollars

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of reported taxes are not being collected (GAO-12-651T, 2012; Jones et al., 2012; Lederman, 2010; Yin, 2012). Additionally, the tax gap numbers do not even include the missed tax revenue from the shadow economy (Robinson, 2009) and illegal activities. The tax gap, illegal activities, and the shadow economy are separate parts of the U.S. economy (Mazur & Plumley, 2007). Additionally, the IRS, businesses, and individuals spend too many hours of precious time tracking paperwork just to make the system work (Jones et al., 2012). Perhaps it is time to get serious about the inefficient income tax system and streamline the tax system to cut costs and collect more taxes by changing income tax reporting to consumption tax collections on purchases of consumer products and services.

The income tax system in the U.S. has a history of change that has made the entire IRS Code complicated and in many cases outdated. Additionally, tax policy of sitting Presidents expands or contract the tax law to fulfill special political agendas (Silliman, 2008). Added to these changes are many recommendations by the GAO for actions necessary to narrow or close the tax gap (GAO-12-651T, 2012). While describing his duties at the IRS, former Commissioner Shulman made it clear that IRS is more than an enforcement agency. Shulman said: "And we're charged with helping millions of Americans cope with a highly complex and dynamic tax code, and therefore we have significant outreach and education" (Nelson, 2011). The current income tax system is so complex that the taxpayer can't even figure how much tax they owe without depending upon the confusing IRS or paying a professional to complete the necessary tax return to file. The IRS Code represses economic independence preventing prosperous fiscal growth of the economy and all entities operating in it (Dubay & Burton, 2015). Complexity of the IRS Code causes a complex, inefficient way for the government to collect revenue to pay its expenses.

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Not efficient. Just as the complexity of the IRS Code contributes to inefficiency (Razak & Adafula, 2013), the inefficiency of the tax program has become a concern because it directly affects taxpayer compliance (Hepp, 2013; Jones et al., 2012). In the United States income tax collections fall short of anticipated amounts (Nelson, 2011). The inefficiency of the tax system and the administration that collects it is evident when looking at the taxes not collected and tax evasion. The latest figures show an annual tax gap of $385 billion between taxes that were reported to the IRS and those collected (Morgan-Thomas & Levine, 2012; Yin, 2012). Although the $385 billion figure is astounding, it is even more shocking to realize that it does not include tax evasion techniques of a growing shadow economy (Buehn & Schneider, 2011; Jones et al., 2012) where goods and services escape detection in computing GDP figures (Buehn and Schneider, 2011). The inefficiency concerns of the income tax system will be discussed in the following order: 1) a rising IRS budget request and 2) individual and business taxpayer time burden costs.

Rising IRS budget request for administering the IRS Code is an inefficiency concern (Yin, 2012) and is the first to be discussed. The 2014 budget request from the IRS was $13.358 billion which was an increase from the $12.793 billion in 2013 (GAO-13-283, 2013). Examples of some of the areas of what constitutes the IRS budget are the costs of IRS Code enforcement actions, educational efforts to help taxpayers understand the complex IRS Code (Nelson, 2011), and all the research studies related to taxpayer compliance. For example, twelve new tax enforcement plans were part of the budget request totaling 30 areas of elevated risk in 2013 (GAO-13-283, 2013). By 2015, this list grew to include two more (GAO-12-603, 2012; GAO-15-290, 2015). The IRS budget request for FY2014 was $13.358 billion which represents a 4.12% increase over the FY2013 budget of $12.793(GAO-13-599R, 2013). The IRS fiscal

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budget is just the beginning of the costs that taxpayers pay to be compliant with the income tax system of the United States.

The second inefficiency concern of the income tax system is individual and business taxpayer time burden costs associated with filing tax returns that taxpayers and businesses pay each year to insure accurately filed tax returns (GAO-13-283, 2013; Nelson, 2011). One example of these legal costs includes taxpayer fees paid to tax professionals who prepare over 60% of all the tax returns filed each year (Nelson, 2011). The complexity of the IRS Code makes it advantageous for these taxpayers to pay a tax professional for their advice or for the preparation of their individual, business, estate, or trust tax returns (Nelson, 2011; Roach & Jens, 2012). In addition to the cost of the tax return, the backup data collection costs are expensive and total billions of dead weight dollars each year that could be spent on something else (Jones et al., 2012; Roach & Jens, 2012). Approximately 6.6 billion hours of economic time burden costs are used by taxpayers each year even if they do not seek professional help. (Roach & Jens 2012). This economic time spent could be used for something more productive or used to spend with family. This economic time is extensively studied by the IRS which adds to the sums needed in the IRS budget to fund all IRS expenses. An example of the economic time burden hours spent by a taxpayer is shown in the research done by the IRS and, to show transparency, reported in the yearly instruction booklets for each tax form filed each year.

In yearly instruction booklets for each tax return form, the IRS estimates the average burden of the economic cost of time for record keeping, tax planning, completion and submission, and other costs for each type of tax form filed. The IRS even estimates different hourly rates depending upon the complexity of tax return filed for each year. The complexity of the return is identified by the form numbers filed. The three forms represented are Form 1040,

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Form 1040A, and Form 1040EZ. For example, located in the 2015 IRS Instructions for Form 1040 the time burden cost in hours for filing an individual 1040 tax return for 2015 is estimated to be 16 hours. This estimate is broken down to eight hours for record keeping, two hours for tax planning, four hours for completion and submission, and one hour for other costs. This represents an average total cost of $270 or $16.88 per hour ($270/16 = $16.88). In the same instruction booklet, the taxpayer tax burden to file a 1040A tax return was estimated to be at a total of seven for a total cost of $90. This represents a time cost of $12.86 per hour ($90/7 = $12.86). Finally, for the 2015 1040EZ tax return, IRS estimated that a total of five hours would be needed to complete the form for a total cost of $40. This represents a time cost of $8.00 per hour ($40/5 = $8.00). Table A1, in the appendix, shows the tax burden for each of the 15 years examined in this study. A snapshot of Table A1 showing the years 2015 and 2001 is shown here.

Table A 1. Estimation of Taxpayer Burden for Tax Years 2001-2015

	Individual Income Tax Form			Individual Taxpayer
Year	Type of Form[a]	Cost Per Form[b]	Number of Returns Filed[c]	Taxpayer Burden
2015	1040	$ 270.00	85,421,307	$ 23,063,752,890
	1040A	$ 90.00	41,133,634	$ 3,702,027,060
	1040EZ	$ 40.00	24,010,976	$ 960,439,040
	Total		150,565,917	$ 27,726,218,990
2014	1040	$ 260.00	84,573,730	$ 21,989,169,800
	1040A	$ 80.00	40,853,006	$ 3,268,240,480

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2001	1040	$ 231.00	80,343,940	$ 18,559,450,140
	1040A	$ 62.00	28,482,046	$ 1,765,886,852
	1040EZ	$ 62.00	21,630,268	$ 1,341,076,616
	Total		130,456,254	$ 21,666,413,608

[a]Estimates of taxpayer burdens are reported by the IRS for each tax year in the 1040 Instructions for each tax year. [b]These costs per return are reported by the IRS and are based upon hours used by the taxpayers for recordkeeping, tax planning, and form completion and submission. [c]The percentage of each form filed each year is reported in each year's 1040 Instructions and the total number of 1040 returns filed are reported in the IRS (2017) SOI - Tax Stats - Individual Income Tax Returns retrieved from https://www.irs.gov/uac/soi-tax-stats-individual-income-tax-returns#prelim.

In addition to these costs for taxpayers, businesses, aka third-party reporters, incur costly employee costs generating the forms to send to both the taxpayer and the IRS. Former Commissioner Shulman mentioned that the IRS is in favor of the third-party information reporting system and requires these forms to be created and sent to them so that they have a check and balance system that verifies as much of the income made by taxpayers as possible (Nelson, 2011). IRS (2012) reported:

> For example, the net misreporting percentage, or NMP, (defined as the net misreported amount as a ratio of the true amount) for amounts subject to substantial information reporting and withholding is 1%; for amounts subject to substantial information reporting but no withholding, it is 8%; and for amounts subject to little or no information reporting, such as business income, it is 56%. (p. 1-2)

Shulman gave the simple example of one of these information system tax reporting documents as the W2 wage report that reports employee income and withholding tax (Nelson, 2011). Other examples are the different 1099 forms provided by banks and financial institutions that show taxpayer income and withholding information for diverse types of investments (GAO-12-651T, 2012). "Withholding and information reporting are particularly powerful tools to reduce the tax

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gap" (GAO-07-391T, 2007, p. 1). This income verification system required by the IRS to aid their tax collection tactics is very useful in collecting taxes. But, these revenue collection strategies are inefficient. They increase the enforcement funds needed by the IRS to collect taxes as well as reduces funds available to companies to expand operations. Businesses become the policing agencies by having to create and issue these verifying documents. Inefficiency, in combination with complexity, create an income tax system that is full of collection anomalies where tax evasion exists.

Tax evasion. Many taxpayers that comply with the law do so for many reasons. Some of these taxpayers comply because of their sense of societal obligation and others simply because third party reporting makes it impossible not to file. Alm (2012) and Alm and Torgler (2011) explained Becker's 1968/1974 basic theoretical economics-of-crime model as applied to the tax compliance issues by Allingham and Sandmo (1972). Alm and Torgler (2011) wrote: "Here a rational individual is viewed as maximizing the expected utility of the tax evasion gamble, weighing the risky benefits of successful cheating against the also risky prospect of detection and punishment" (p. 636). In contrast, Alm and Torgler (2011) also explained that tax evasion is not an issue that needs to be studied but instead the study should focus on the high rate of compliance. In many cases, there is no tax evasion consideration by the taxpayer because of the third-party document reporting process. Yet, when there is income earned where the documents are not shared by the IRS, then the question of tax evasion might be considered. The fact that less than one percent of individual tax returns are audited by IRS could also contribute to taxpayers considering maximizing the expected utility of the tax evasion gamble (Alm & Torgler, 2011). But, for the most part, taxpayers pay their taxes even when there are no third-party reporting verifications by the IRS. The study conducted by Alm and Torgler (2011) suggested that such a

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large voluntary compliance rate (VCR), 83.1% reported by the IRS FY2006 tax gap figures reported in 2011, could be explained in part by some of the IRS enforcement efforts. But, the major reason for the high compliance rate is a broad realm of third party documentation (Yin, 2012).

In the same time frame of the Alm and Torgler (2011) study, Eisenhauer et al. (2011) studied the economic models of crime in relation to tax evasion and challenging the norm that individuals maximize expected utility because of their inherent sense of immorality by extending the ideas of taxpayer ethics. Eisenhauer et al. (2011) concluded that individuals commit to social obligations, in this case paying their fair share of taxes, because of their sense of right and wrong which exists with their fear of being caught. Their study supported the 83.1% VCR reported by the IRS since 86.5% of their sample showed high degrees of moral ethical preference (Eisenhauer et al., 2011). This may be true but there are irregularities somewhere since tax evasion does exist. Hashimzade, et al. (2013) indicated that tax evasion is a major part of the U.S. economy. Yin (2012 and Robinson (2009) both pointed out that tax evasion reflects the inadequacy of the IRS in its collection efforts which results in increased IRS budget requests. The two observations indicate that tax evasion does exit. That fact that tax evasion does exist is evidenced by two things, the tax gap and the shadow economy. These two tax evasion indictors will be discussed in the next section.

Evidence of tax evasion. Tax evasion is unreported income that is concealed (Alm, 2012; Buehn & Schneider, 2016). Slemrod and Weber (2012) cautioned that tax evasion is not the same as tax avoidance where the provisions of the IRS Code are used to legally reduce a taxpayer's tax liability. Illegally unreported income results in tax evasion where tax collections of needed funds to support government operations are lower than anticipated. Dishonest, would

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be taxpayers, rob honest taxpayers of public funds (Eisenhauer et al., 2011). Tax evasion includes both the tax gap, where taxes are reported but unpaid or mistakenly unreported, and the shadow economy, where income is not reported at all. Mistakes of not understanding the IRS Code can also cause unreported income in both sectors. Although separate, in many aspects of both the tax gap sector and the shadow economy sector there is a crisscross of the causes for each, resulting in an even more complicated tax evasion problem. This problem is elusive and extremely hard to measure since tax evasion is illegal and observable data is illusive. Yet, Slemrod and Weber (2012) urge analysis of the illusive to proceed so that the problem can be fully disclosed and measured. The fact that both the tax gap and shadow economy exist signifies that there is a substantial amount of unreported tax liabilities that should be collected by the IRS that aren't. Both the tax gap and the shadow economy will be reviewed next with the tax gap being first.

Tax gap. Even though income and withholding documents reported by companies in the business economy help reduce the tax gap, the fact remains that the tax gap still exists. Before giving the figures of the estimated size of the federal income tax gap, it is important to understand what the tax gap is and how it is computed. It should also be understood that the size of the tax gap reflects the inefficiency of the collection efforts of the IRS (Yin, 2012; Robinson, 2009). In its simplest form, the IRS (2012) defined the tax gap as "the amount of true tax liability faced by taxpayers that is not paid on time" (p. 1). Robinson (2009) added to this definition of the tax gap by stating "The tax gap is premised on legal activity only and does not include the shadow economy" (p. 960). Mazur and Plumley (2007) agreed that illegally earned income is not considered part of the tax gap either but reminds us that there is a fraction of the legal and illegal earned incomes that overlap into the shadow economy. When using the IRS

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definition alone, it would seem the tax gap and the shadow economy should be combined since the members of the shadow economy have income and should thus owe taxes. For the most part, the tax gap and the shadow economy remain separate parts of the U.S. economy (Mazur & Plumley, 2007). The IRS is responsible for keeping track of the tax gap and estimating its size.

Tax gap size estimation is calculated by the IRS. The IRS estimates the tax gap by using information obtained from different resources for the three major areas of the tax gap. Yin (2012) explained the three divisions of the tax gap and how the IRS estimates the gap for each. The first area is the underpayment gap which is calculated by subtracting the tax amounts collected from the tax amounts reported on the tax returns filed. The second area is the non-filing gap which is estimated based upon a model using aggregate demographic and economic statistics obtained from the U.S. Census Bureau. The third area is the underreporting gap which is estimated using annual audit information of randomly selected taxpayers and issues.

When audits are used, they are conducted through the National Research Program (NRP) of the IRS and are not considered operational audits or lifestyle audits (Rupert, Pope, & Anderson, 2015). For FY2001, 46,000 individual income tax returns were randomly selected for the compliance study (Mazur and Plumley, 2007). "The estimate also covers the five types of taxes that IRS administers—individual income, corporate income, [self] employment, estate, gift, and excise taxes" (GAO-12-651T, 2012, p. 2). The NRP audit data is used in conjunction with Detection-Controlled Estimation (DCE) to extrapolate the data to represent accurately the entire population (GAO-12-651T, 2012). The size of the tax gap is complicated since it is an ongoing process of collections for years after the tax liability is due.

The most recent United States gross tax gap estimate was reported in January 2012 and shows negative tax collections of the taxes reported totaling $450 billion for the fiscal year (FY)

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2006 which represents a $105 billion increase from the previously reported estimated tax gap FY 2001 published in 2006 (IRS, 2012). Mazur and Plumley (2007) explained the process as a lengthy one which explains why the most current estimate lags so far behind the current year. The analysis for FY 2001 tax gap was started in October 2002, ended in September 2004, but was not published until February 2006 (Mazur & Plumley, 2007). The net tax gap FY 2006 is reported to be $385 billion of taxes that will never be paid (IRS, 2012; Yin, 2012). Only $65 billion of the tax gap is estimated to be collectable by the IRS through voluntary tax payments by taxpayers or the collection efforts of the IRS (Yin, 2012). The remainder will be lost. The IRS is continually working on reducing the tax gap. To do this, the IRS needs to know the tax areas that contribute to the tax gap so that they can develop collection strategies to reduce these areas.

Even though the amount of the tax gap and net tax gap are important, it is even more important to know the tax areas that contribute to the tax gap, what percentage of the gap each area represents, and the causes for the noncompliance. Each area causes inefficiency expense of the income tax system because of the costs associated with taxpayer mistakes, intentional non-compliance, and refund fraud (GAO-12-651T, 2012). The GAO showed that close to 40% of the FY 2006 tax gap is attributable to misreporting errors of individual income. This represents $179 billion and is due to over reporting expenses or under reporting income because a substantial portion of the income can't be verified. This income is not subject to third party reporting criteria (GAO-12-651T, 2012). For FY 2006 gap, the largest area of shortfalls, $296 billion, was estimated to be in the individual income tax of the underreporting gap (Strobel, 2012). "Because noncompliance has multiple causes and spans different types of taxes and taxpayers, multiple approaches are needed to reduce the tax gap" (GAO-12-651T, 2012, pg. 1). Broad area strategies for reducing the gap suggested by the GAO are:

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- enhancing information by third parties to IRS;
- ensuring high-quality services to taxpayers;
- devoting additional resources to enforcement;
- expanding compliance checks before IRS issues refunds;
- leveraging external resources, such as paid tax return preparers and whistleblowers;
- modernizing information systems; and
- simplifying the IRS Code (GAO-12-651T, 2012, p. 1).

With the broad area strategies for reducing the tax gap in place, the IRS and Congress have enacted some more initiatives to improve taxpayer compliance (Nelson, 2011; Strobel, 2012; U.S. Department of the Treasury, 2009; Yin, 2012). New increased third-party reporting requirements were included in the 2014 IRS budget request from the IRS (Lederman, 2010; Morgan-Thomas & Levine, 2012; Strobel, 2012; Yin, 2012). Per former IRS Commissioner Shulman, tax return accuracy and compliance is highest when third party reporting of income is present (Nelson, 2011). The importance of third party reporting is evident; taxpayers are aware that IRS is watching (Lederman, 2010). Two examples of these significant initiatives are (a) to require brokerage firms to report stock basis information for the security sales of their clients and (b) to implement new requirements for paid tax return preparers (GAO-13-283, 2013).

In 2010 the IRS began the process of requiring registration of paid tax return preparers (GAO-13-283, 2013). This action was deemed important since close to 60% of all tax returns filed are prepared by paid professionals (Nelson, 2011). Shulman, the 47th Commissioner of IRS, clarified his reasoning for this initiative by stating: “So if we can make sure that return preparers provide good service to customers and get their tax returns right in the first instance,

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that's good for taxpayers [and] it's a good use of our resources" (Nelson, 2011, p. 17). Other third-party reporting initiatives enacted in 2012 required 1099 capital gain (or loss) reporting from brokerage firms when security sales existed, 1099 income reporting of corporation payments over $600, and information reporting on rental property income and expense payments (GAO-13-283, 2013; Morgan-Thomas & Levine, 2012; Nelson, 2011).

Another example of a specific action to help reduce the tax gap was when the GAO was asked to study the possibility of obtaining unpaid tax liabilities from individuals applying for passports issued by each State. The GAO reported the following results: "State issued passports amounted to about 16 million individuals during fiscal year 2008; of these, over 224,000 individuals (over 1 percent) owed over $5.8 billion in unpaid federal taxes as of September 30, 2008" (GAO-11-272, 2011, p. 1). Even though this prospect could be a lucrative one to reduce the tax gap, the GAO reported that individual passport issuance could not be restricted because of a tax liability and the State does not have reciprocity with the IRS to obtain individual tax information (GAO-11-272, 2011). The GAO is still investigating this option and looking for others as a viable way to get the unpaid federal taxes paid and thus reduce the tax gap.

Since the GAO and IRS have been studying the tax gap, there have been many different discussions on how to reduce it. The GAO stresses the tax gap's importance by suggesting: "Given persistent levels of noncompliance and large and growing structural deficits, it will be important to understand the causes of tax noncompliance and develop new approaches to minimize it" (GAO-12-651T, 2012, p. 1). In this effort to reduce the tax drain of the tax gap, many initiatives have been proposed with some implemented and some rejected. As the IRS continues to work on reducing the tax gap, another tax drain on the economy lurks is the shadows. It is known as the shadow economy.

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The shadow economy. An excessively large tax drain on the economy regarding the income tax system is the tax evasion of the shadow economy. The shadow economy consists of concealed income earned by individuals and businesses to avoid paying taxes on such income (Buehn & Schneider, 2011). Wiseman (2013) added, the shadow economy consists of both illegal activities and legal activities that are hidden. Schneider (2014) used Smith's 1994 definition as 'market-based production of goods and services, whether legal or illegal, that escapes detection in the official estimates of GDP' (p. 4). This paper uses the same definition. The shadow economy, referred to in this study, is defined the same as the underground economy, illicit economy, and black economy. No matter what the illicit activities are called, the main important thing for the IRS to know is how to reduce the shadow economy. The first step in this process would be to know the size of the shadow economy.

Due to the very nature of what the shadow economy is, its size is difficult to measure. Yet, economic indicators can be of help. For example, Schneider (2014) explained the results of Bajada and Schneider's 2009 study of the relationship between the size of the shadow economy and the unemployment rate. They found the relationship to be symmetric; the ups and downs shown in the unemployment rate were consistent with the shadow economy fluctuations. In a sluggish economy, the size of the shadow economy tends to increase as people participate more in the shadow economy to compensate for their losses in the official economy (Buehn & Schneider, 2011). Since the unemployed are not receiving any employment information in the official economy, tracking their participation in the shadow economy is difficult until the time comes when their name appears somewhere in the official economy. This appearance could be in the form of non-employee compensation, reported on a form 1099, or even an endorsed check

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clearing the bank of a company in the official economy. The IRS uses company documents from the official economy to track income of others.

Receiving third party income and deduction documentation is an important enforcement technique used by the IRS to reduce the shadow economy (Lederman, 2010). Potential taxpayers in the shadow economy know that the income they made is not being reported to the IRS and thus weigh the possibility of evading or paying the tax (Lederman, 2010). However, if the situation changes and a third-party information document is submitted to the IRS, the situation changes to an IRS advantage because the IRS can use enforcement techniques against the taxpayer to collect taxes from the past, present, and future years. Although increasing third party documentation forces voluntary compliance, taxpayer voluntary compliance without enforcement is the most cost-effective way to reduce the shadow economy (Yin, 2012). But, to reduce the shadow economy, voluntary compliance needs to be enforced. Thus, the IRS takes the voluntary compliance of taxpayers very seriously. The cost of this concern causes complexity of the IRS Code and inefficiency of the operations to collect revenue by the government. This, in turn, causes complications that contribute to the current tax system not being a worthy tax policy where voluntary compliance by taxpayers is in question.

Voluntary compliance concerns. Funding for government programs is obtained through the collection of taxes that depends largely upon a prominent level of voluntary compliance (Razak & Adafula, 2013; Hepp, 2013). Bird (2013) and Fjeldstad (2014) suggested that taxpayer compliance depends mainly on the attitudes of the individual and their endorsement of the system. Internal Revenue Service (IRS) tries to entice taxpayers' voluntary compliance: "where [taxpayers] internalize their societal obligation" (Yin, 2012, p.389) to pay their fair share in support of the system. Yin (2012) explained that voluntary compliance is not as voluntary as one

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would expect since a large amount of compliance is the result of IRS threats in the form of third party reporting of over 100 different income forms submitted to the IRS. Alm and Torgler (2011) explained that taxpayers use Becker's 1968/1974 "economics-of-crime model" (p. 636), where cheating or honestly reporting income is done by "maximizing the expected utility of the tax evasion gamble" (p. 636).

As mentioned by former IRS Commissioner Shulman, the income tax system of the United States is a voluntary system where taxpayers' honesty plays a huge part (Nelson, 2011). In studying the size of the income tax gap, the IRS estimates the voluntary compliance rate (VCR) for each year. For FY 2006 the VCR remained stable compared to the previous estimate for FY 2001. The VCR was estimated to be 83.1% for FY 2006 compared to 83.7% for FY 2001 (IRS, 2012). Shulman applauds the voluntary compliance of taxpayers in submitting their tax returns and paying their fair share (Nelson, 2011). Yin (2012) calls this voluntary compliance an act where taxpayers "internalize their societal obligations to report accurately and pay their full tax liabilities" (p. 389). Taxpayers have had since 1913 to cultivate a sense of societal obligation where filing and paying taxes are concerned. The size of the tax gap and shadow economy indicates that there are many non-compliant taxpayers that have earned unreported income that have not cultivated a sense of societal fairness. Regardless of whether the uncollectable tax is intentional or unintentional, the fact remains that, due to a large degree, honest taxpayers are deprived public funds because the tax evasion act is an "unethical gamble" by would be taxpayers (Eisenhauer et al., 2011). The expected utility theory of tax compliance expressed by Allingham and Sandmo in 1972 explains how some taxpayers use fear of detection to decide about their tax compliance decision (Alm, 2012).

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IRS takes the utility of tax evasion gamble seriously in their efforts to collect taxes and reduce the tax gap and stop some of the tax evasion from the shadow economy. Even though the IRS and GAO have suggested and implemented initiatives to help close the tax gap and reduce tax evasion, too many initiatives could be counterproductive (GAO-12-651T, 2012). There is a fine line between IRS enforcement efforts and voluntary compliance actions of taxpayers (Yin, 2012). Eisenhauer et al. (2011) reminded us that penalizing enforcement could produce more tax evasion instead of reducing it. And, reporting requirements for taxpayers and third-party reporters are saturated as it is. Adding more requirements creates burdens for all, including the IRS (GAO-12-651T, 2012; Yin, 2012). With the complexity and inefficiency of the current U.S. income tax system affecting taxpayer compliance, overhaul of the current income tax system to an entirely new tax system could be the only practical option to simplify the system and maintain taxpayer compliance (Hepp, 2013). Change the income tax system to where voluntary compliance would be transparent and thus enhanced where less thought about the tax evasion gamble would be necessary. Several mainstream tax proposals that have been suggested to overhaul the current system will be reviewed next.

Mainstream Tax Proposals

An overhaul of the income tax system to change to a consumption tax would require consumption tax alternatives. Numerous mainstream proposals have already been reviewed by many authors, examples being Amadi and Amadi, (2012), Coy and McCormick, (2011), Hymson, (2013), and Walby (2014). One of these authors, Hymson (2013), described five of the more popular consumption tax proposals which are: The Unlimited Savings Account (USA) Tax, Michael Graetz's Value Added Tax (VAT), The Fair Tax, McCaffery's Spending Tax, and The Hall/Rabushka Flat Consumption Tax. Each are briefly reviewed in the next section.

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The Unlimited Savings Account (USA) Tax. The Unlimited Savings Account (USA) Tax, supported by former Senators Nunn and Domenici, is a "cash flow consumed income tax" (Hymson, 2013, p. 185). This tax plan closely resembles the income tax currently used in the U.S. because it uses progressive tax rates, allows for certain tax credits, and allows for zero tax brackets to favor the poor (Jurinski, 2012; McCaffery, 2006). This tax plan is different from the income tax because it only taxes funds used for consumption, both earned and borrowed, by exempting saved or invested funds during the year (Jurinski, 2012). In addition, as with other consumption tax proposals, special expenditures such as itemized deductions of mortgage interest and charitable donations would not be included in the plan (Hymson, 2013). The advantage of this proposed tax plan is that it best resembles the current tax system so that taxpayers would find it familiar. In contrast, the disadvantage is that the tax rates would be higher than the current system (Jurinski, 2012).

Michael Graetz's Value-Added Tax (VAT). The Value-Added Tax is described by Gale (1999) and Mikesell (2000) as a consumption tax supported by Representatives Billy Tauzin (R-LA) and Dan Schaefer (R-CO) in partnership with Citizens for an alternative Tax System (CATO). The VAT is a business-level tax where the tax percentage is added and paid at each stage of a product's production process with the total tax paid when the final consumer pays for the good or service (Hymson, 2013; Jurinski, 2012; McCaffery, 2006; Mitchell, 1995). Mitchell (1995) explained the tax simply by showing how the VAT would work regarding the production of a piece of furniture. He wrote:

". . .instead of a 25 percent retail sales tax on purchases at a furniture store, the VAT would tax the logs as they go to the sawmill, the lumber as it goes to the furniture manufacturer,

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the furniture as it goes to the store, and the same furniture as it is sold to the consumer. The net effect, however, is the same: a 25 percent tax on the value of the retail sale (p. 4).

The tax becomes part of the price of the consumer good and thus is not an income tax but a consumption tax (Jurinski, 2012). The percentage of the tax paid can be hidden in the price of the consumer good or, to show transparency for the consumer, it can be shown on the invoice separate (Dubay & Burton, 2015; Hymson, 2013). An advantage of implementing the VAT is the fact that the same type of tax is used internationally and thus the U.S. would be using the same tax system as their trading partners in the global economy (Jurinski, 2012). Another advantage, according to Jurinski (2012), is that the VAT would generate large volumes of income for the Treasury throughout the year as production in the U.S. progresses. A disadvantage of this tax plan would be the complexity of tracking and paying the tax for companies at each stage of product or service production.

The Fair Tax. The Fair Tax is a progressive consumption tax that is supported by Americans for Fair Taxation which is a 501(c) non-profit, non-partisan advocacy group (Walby, 2014). The Fair Tax was first presented to in the first session of 106th Congress in 1999 and offered again as the Fair Tax Act of 2011 to the 112th Congress (Hymson, 2013). This progressive national consumption tax would replace all federal income and payroll taxes by taxing purchases of new consumer goods and services at the point of sale (Hymson, 2013; Jurinski, 2012). Education and job training expenses would be considered additions to human capital and would be exempt (Hymson, 2013; Peercy & Svenson, 2016). This tax plan would have a proportional 23% statutory tax rate with a monthly prebate to ensure that each family unit could spend up to the poverty level tax free (Jurinski, 2012; Walby, 2014) In addition there would be a companion legislation to repeal the 16th Amendment of the Constitution (Hymson,

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2013; Walby, 2014) and, as stated by Hymson (2013), "abolish the Internal Revenue Service (IRS)" (p. 188). Because a Fair Tax is a consumption tax and because there would be no IRS, there would be no individual tax returns filed. The retail and service sector collecting the tax would file monthly consumption tax reports to pay the tax collected to the state taxing authorities who in turn would forward the tax to the U.S. Treasury (Hymson, 2013). The main advantages of The Fair Tax proposal are the same as other consumption tax proposals in that the tax is simple, transparent to the taxpayer, and easy to pay (Hymson, 2013). The main disadvantage to this tax plan is the costs to process and mail all the taxpayer prebates.

McCaffery's Spending Tax. McCaffery's (2006) spending tax is "a consistent, progressive spending tax" (p. 97). McCaffery (2006) explained, that the formula to compute the tax on consumption would be as simple as: McCaffery spending tax liability = tax rate x (wages + barrowed funds – savings). Depending upon family size and spending dollars, a progressive tax rate table would be used to choose the correct tax rate to compute the tax liability at the end of the year (McCaffery, 2006). The spending tax is a direct tax paid by the taxpayer consistent with the formula stated by McCaffery above; a family tax return would be filed (Hymson, 2013). Although the consumption tax would not be paid at point of sale of the goods purchased, it would still be a consumption tax because income spent (not saved) would be taxed (Hymson, 2013; McCaffery, 2006). Third party documents from employers and financial institutions would be used to authenticate wages, borrowed funds, and savings (McCaffery, 2006). This tax proposal would eliminate itemized deductions, credits, the special capital gains tax, and the gift and estate taxes currently in the IRS Code.

The Hall/Rabushka Flat Consumption Tax. The Hall/Rabushka Flat Consumption would reform the current tax system to a system that is simple to understand and fair. The Flat

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Tax has been supported by such leaders as former House Majority Leader Dick Armey, Senator Richard Shelby, former Presidential candidate Steve Forbes, Daniel Mitchell (2010), an advocate for tax reform writing for the Heritage Foundation, and Grover Norquist, founder and president of Americans for Tax Reform. The Flat Tax would alleviate the complicated tax return filed in the current system to be replaced by a simple post card for filing by each family. Every taxpayer would pay the same rate of tax after an exemption for each family member is deducted. The exemption would exist to help lower income taxpayers. Since deductions are not used, there would be a clear definition of income; it would be defined as gross earnings from all sources. The advantages of this system are clear. Special interest politics would not exist because deductions would not exist, everyone would pay by the same rules by paying the same tax rate, and tax brackets and tax tables would not exist. The disadvantage is that the Flat Tax is still based on income. It will not capture those in the shadow economy that do not declare income or mistakenly under report income.

Each of the consumption tax systems reviewed have good points that could be combined to make a reasonable, simple tax structure that would be effective to simulate the amount of income taxes collected. The system needs to be simple, with the absolute lowest tax percentage possible. To do this, the participants in the shadow economy need to pay tax. A consumption tax would be a sensible system to consider since all households purchase goods and services. There will always be ways of cheating on taxes, especially the more complex the system becomes. Simplify the system and cheating will be harder to achieve. If the tax rate is low enough, each consumer could afford to pay a share. One such system is the National Retail Sales Tax (NRST) which will be briefly discussed next.

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National Retail Sales Tax (NRST) Versus National Consumption Tax (NCT)

The National Retail Sales Tax (NRST) combines some of the principles of the mainstream tax proposals discussed by Hymson (2013). The NRST is a tax program that taxes consumption goods and services at point of sale. Thus, a tax would be ". . . levied at a single rate on an extremely comprehensive base. . ." (Zodrow, 2008, p. 247). The National Consumption Tax (NCT) used in this study, would be distinguished from the NRST explained by Zodrow (2008) in that there would be no rebate given to taxpayers. Like the state sales tax programs, all consumers would pay the tax. The NCT would be like many of the sales tax structures used in many of the states in the U.S. All the state sales tax systems are comprehensive examples of what a federal consumption tax system could be by looking at the structure, what is taxed, and the collection process of each. These tax systems vary in each state as to what is taxed, but, the basic systems themselves are the same. To show the popularity of this kind of tax system, Mazerov (2009) noted:

> The District of Columbia and forty-five states –all except Alaska, Delaware, Montana, New Hampshire, and Oregon—levy sales taxes. They are a critical revenue source for state governments, supplying $236 billion in state tax revenue in 2007—31% of total state taxes (p. 3).

At times, some of the 45 states using a sales tax have imposed additional taxes on some services to expand their tax base. In doing this, tax revenue would be increased without raising the tax rate percentage (Mazerov, 2009; Oppenheimer, 2008). This would not be needed in the Federal version of a NRST system, known as NCT, since all the commodities and services that would be taxed in the beginning would remain taxed throughout; the tax rate percentage would not be raised to increase tax revenue because the beginning exemptions for human necessities of health

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care, shelter, and food prepared at home would be exempt. Thus, the reduction of revenue needed would be to cut spending, not increase taxes.

The NCT proposed would be different from the state sales tax systems in one major way. There would be special exemptions that would not be taxed. Education and reading expenses, specifically tuition and books, would be exempt. The reason for exempting education, in addition to human necessities, is simple. The success of any country depends upon it resources. Natural resources are important but human resources are vital. Human resources with increased knowledge base can help increase economic growth and decrease poverty (Peercy & Svenson, 2016). Thurow (1997) said it best in his book The Future of Capitalism: How Today's Economic Forces Shape Tomorrow's World when he stated:

> ". . .in the future, the value of wealth held is the form of natural resources is going to be falling and the value of wealth held in the form of human resources is going to be rising. Wealth is the name of the game, but the game is different (p. 289).

Human capital needs to be constantly renewed and improved. Without education, there is no improvement, only increased poverty (Peercy & Svenson, 2016). Education, including reading, is the one sure way to rise out of the grips of poverty, especially in this great Nation. This falls within line with Adam Smith's (1776/2005) characteristics of a worthy tax policy where he noted there should be the support by government to pay for universal education. Thus, in the NCT system, education and reading are considered a necessity.

In addition to education and reading, the other human necessities of healthcare, shelter, and food prepared at home would be exempt. Exempting healthcare is important, as is education, to the health of the country. As expressed by de Campos (2012), the widespread acceptance of the phrase "right to health" is considered a basic life necessity by an extended list of U.S. and

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international agencies (p. 252). Shelter and food prepared at home, as necessities, needs no explanation. Everything else would be taxed in a NCT system. It should be emphasized here that the public needs to be assured that, in the income tax system, they are already being taxed on all goods and services since they pay income tax on income prior to purchasing the goods. In the NCT system, necessities would be exempt. In fact, every consumer would have the choice of buying the product or service being taxed and paying tax or saving the money and paying no tax. There would be no confusion and no loopholes that could be used to evade tax in this consumer based system. Even illegal income would be taxed in the NCT when purchases were made. More importantly, taxing goods and services not exempt would insure that the NCT system is simple to understand, fair to every taxpayer, and economical because everyone would pay a small share based on the same percentage when purchases are made. According to Kaplow (2011), uniform taxation is optimal. Kawase (2014) said that an optimal level tax rate maximizes the intended welfare of the taxpayer. There is a balance between efficiency and equality in an optimal system such as a consumption tax system (Mankiw et al., 2009). Thus, a consumption tax of a specified percentage on consumer products and services could be optimal. The NCT would be optimal.

Why Change to a Consumption Tax System?

A consumption-base tax system taxes retail products and services by taxing either the end consumer or the company creating the tangible products and services. Even though all products and services should be taxed to make it fair for everyone, there is the possibility that some items could be exempt. Gale (1999) suggested that such items as education, houses, and automobiles could be some of the tax-exempt investments. In addition, Oppenheimer (2008) suggested, since services are not tangible products, there is the possibility that they would not be taxed. But, when developing the system, if the tax rate on just tangible purchases is too high to cover the funds

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needed for government services then taxing consumer services, if not previously taxed, would be an option to bring the lower tax rate in line (Oppenheimer, 2008). For a consumption tax to mirror the current income tax system, Edwards (2001) emphasized that the consumption tax system should tax all consumer products including necessities so that the new system would not be different from the current income tax system where the same items are purchased with after-tax dollars. The public needs to understand that, as taxpayers in the income tax system, they have paid tax on every purchase made, including such items as medicines, doctors' fees, food, and other goods and services. Even if taxpayers do understand the concept of pre-taxed dollars, there is another part of the consumption tax system they are uncertain about. Even though the tax rate is horizontally the same for all and considered fair, there is an inequality that results because the tax is vertically regressive.

The major disadvantage of the consumption tax is the vertical inequality. The same percentage of tax paid is horizontally fair but causes a vertical regressive tax situation on middle and lower income payers (Skipper & Burton, 2008). Based upon their income, they pay a higher portion of tax on their income (Walby, 2014). But, if you look at the current income system in the U.S., the regressive nature of the income tax also exists. Even though the tax rates are progressive, noncompliant taxpayers and those that can afford professional help to avoid tax liability cause vertical inequality for the lower and middle-income taxpayer.

Tax collection reporting would be simplified for the individual since there would not be an annual income tax return and none of the associated document collection process. In addition, business taxpayers would no longer have an annual income tax return to file. There would be no need for many of the third-party reporting documents that track income for the taxpayer to be verified by the IRS. There would, however, be reports for consumption and the consumption tax

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collected monthly (Yetter, 2011). These reports would mirror the already generated consumption tax reports reported to the state for the 45 states that have a state consumption tax.

A consumption-base tax system adds a tax, based upon a percentage rate, to each product and service bought. Mitchell (2010) explained the fairness of this system by stressing the fact that all consumers would pay the same percentage of tax. Each time a product is purchased by the consumer the tax is added and the consumer can decide if they want to purchase the product or not. Since this system would replace the current income tax system of the United States, there would be no reason to hide income (Neil, 2010). The non-compliant taxpayers in the current system and the individuals in the shadow economy would pay tax too each time they purchase an item with their hidden income. Thus, not only is the sale tax transparent, it causes transparency of the hidden income. One other advantage of the consumption-base tax is that export products sold in foreign markets would be more competitive since the consumption-base tax would not be added when sold outside the United States (Edwards, 2001). Yet, foreign visitors would pay the consumer tax on purchased products when visiting the U.S. (Neil, 2010).

Summary

Since the inception of the income tax system in the U. S., many taxpayers, economists, and financial experts have supported a need to simplify the U.S. tax system and to change it to a consumption tax base. With all the studies done on the subject and consumption tax proposals, the income tax system has not changed. Mirrlees et al. (2012) stated that the change has not happened because the studies have only highlighted the political agendas needed to support a change to a consumption tax but they have not recognized the individual taxpayers' concern about how a new system would directly affect them. In addition, taxpayers are complacent with the taxes they pay because they are disconnected from the flaws of the income tax system and

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the need to pursue a change (Hurley and Hetherington, 2014). The purpose of this quantitative, longitudinal, study was to focus on individual taxpayers' tax returns to compare the income-based tax system to a consumption-based tax system and the effects each system has on individual taxes and the economy. Without the support of individual taxpayers, change will not be possible.

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Chapter 3: Research Method

Supporters of the change to a transparent consumption tax system have explained structural economic and social welfare efficiencies of the new system as well as the many advantages and disadvantage of many of the political itineraries (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). Although evaluating the differences of an income tax and a consumption tax is necessary, individual taxpayers need to know how the change to a consumption tax system would directly affect them. According to Boudreau and Dalton, (2013), Mirrlees et al., (2012), and Pagone, (2009), this has not been done. Individual taxpayers have been told that a change to a consumption tax will be a simple, efficient, and equitable way to pay a tax (Marcus et al., 2013) compared to the income tax system, which is complex, inefficient, and expensive (Bird, 2013). Even though individual taxpayers find the income tax system complex and burdensome, the individual taxpayer does not know the effect that a consumption tax will have on their tax situation. If the individual taxpayers remain perplexed about the two tax systems they will continue to become less likely to accept a change to a new system because they will continue to be complacent with the familiar (Hurley & Hetherington, 2013). If there is no change, U.S. economic growth will continue to be depressed under the income tax system. This will be caused by changing IRS Code regulations (CCH, 2013), greater taxpayer compliance costs (Nelson, 2011; Roach & Jens, 2012), decreased savings and work ethics (Carbaugh & Ghosh, 2011; Hurley & Hetherington, 2013; Laffer, et al., 2011; and Mirrlees et al., 2012), increases in tax evasion (GAO-12-651T, 2012), and rising IRS budget dollars (Amadi & Amadi, 2012). The problem that exists is that there is a negative impact on individual taxpayers and their tax returns because the United States has a complex income tax system rather than a transparent consumption tax. The current income tax system is too complex

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and inefficient whereas a consumption tax is simple, transparent, efficient, and economical. Supporters of the change to a transparent consumption tax system have explained structural economic and social welfare efficiencies of the new system as well as the many advantages and disadvantage of many of the political itineraries (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). The purpose of this three-phase quantitative study using a quasi-experimental design (Trochim et al., 2015) focused on both the individual taxpayers and their tax returns to compare the income-based tax system to a consumption-based tax system from the point of view of the individual, keeping in mind that tax collections needed to remain revenue neutral. Historically, the need to simplify the current income tax system in the United States has been an ongoing debate for more than a century (Hymson, 2013). Different suggestions have been varied and range from simplifying the current system to changing the system all together (Hymson, 2013; Mirrlees et al., 2012). Consumption tax advocates (Boudreau & Dalton, 2013; Boylan, 2013; Mirrlees et al., 2012; Pagone, 2009) suggest changing the system altogether to a consumption-based tax. In this type of tax system, the tax to be paid is the consumption tax percentage multiplied by the income available for spending. When considering a consumption tax, individual taxpayers should be able to compare their individual tax as an income taxpayer to their tax as a consumption taxpayer. To answer the questions in this study, a paired *t* test comparison was used to show whether the hypothetical individual consumption tax liability was different from the revenue neutral individual income tax liability originally paid by the same taxpayers. The research questions and hypotheses were:

Question 1. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in revenue neutral income for the U.S. government for the longitudinal years in question?

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$H1_0$. The U.S. Government who collects tax based upon consumption will collect revenue neutral tax, on average, based upon income—$H1_0$: $\mu 1 = \mu 2$.

$H1_1$. The U.S. Government who collects tax based upon consumption will not collect revenue neutral tax, on average, based upon income —$H1_1$: $\mu 1 \neq \mu 2$

Question 2. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in the same amount of tax paid by taxpayers under the income tax system for the longitudinal years in question?

$H2_0$. The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_0$: $\mu 1 = \mu 2$.

$H2_1$. The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_1$: $\mu 1 \neq \mu 2$.

Research Design

This was a three-phase, repeated measures longitudinal, quantitative study using a quasi-experimental design (Trochim et al., 2015). This study used a secondary data design where the preliminary exploratory data analysis (EDA) consisted of using governmental statistical data to obtain various statistics regarding 100% of the individual income tax returns filed for each of the 15 years in the longitudinal study. Secondary data was used because it saved time and was cost-efficient. But, more importantly, individual tax return information is confidential information of a sensitive nature for individual taxpayers. Using the data accumulated by the IRS in a composite form made the information anonymous in nature. This was a three-phase study. Each phase is explained starting with Phase I.

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In Phase I of this study, secondary data was used to compute the total income tax revenue that was received by the U.S. Government, the consumption funds available for taxing, and the hypothetical sales tax percentage needed to collect the revenue neutral income needed by the government. Phase II consisted of converting a composite sample of individual tax returns filed for multiple years from the income tax-base to a consumption-base to which were used for a relationship of the effect of the hypothetical sales tax percentage upon these converted tax returns. These returns were all the individual tax returns filed with the IRS for each of the multiple years of this longitudinal study. Once the tax returns were converted, then Phase III of the study began. In this final phase of the study, the funds available for consumption for the converted tax returns (CTR) were multiplied by the hypothetical sales tax percentage (ST%) to compute the consumption sales tax liability (CSTL) for the group of taxpayers. The two variables used in this economic model were: (a) CTR (converted in Phase II) and (b) the ST% computed in Phase I. Accordingly, the economic model for the third step was: CSTL = total CTR x ST%.

Once Phase III of the study was complete, the paired-sample *t*-test was used to compare what a composite of individual taxpayers would pay in a consumption tax system to what they paid in the income tax system for each of the 15 years in the study. A paired-sample *t*-test is the observation of one sample that is compared with the same sample after treatment of some kind (Nolan & Heinzen, 2016). This test was used to compare one group of taxpayers under the income tax system to the same group of taxpayers after treatment to simulate a consumption tax. No other tests were deemed necessary.

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Population/Sample

The sample used in this study was a convenience sample of secondary data consisting of a 100% composite of individual tax return information prepared by the IRS for each of the tax years used in this repeated measure longitudinal study. Since the number of tax returns varied each year, so did the number used for each longitudinal year. However, for each year there was a composite of over 100,000,000 individual tax returns. Since this study was a paired-samples *t*-test design, the comparison was a *within-groups design* (Nolan & Heinzen, 2016) where a comparison of two populations was conducted; population 1 was the income tax liability for the composite income tax returns for the specified year and population 2 was a consumption tax liability for the same composite individual tax returns. Trochim et al. (2015) explained that a convenience sample is easy to use because it is not random since the participants used are individuals that are conveniently available to the researcher. The secondary data used in this study was a convenient sample and may seem like it would be a nonprobability sample that does not have random selection which does not provide the ability to generalize to the entire population (Creswell, 2014; Zikmund et al., 2013). This is not true, since the sample for this study was 100% of the individual tax returns filed in the U.S. for each year and was the entire population. Zikmund et al. (2013) cautioned that any user of a nonprobability sample "should remember that projecting the results beyond the specific sample is inappropriate" (p. 396). Again, this is not true for this study since 100% of the population was used. Although Trochim et al. (2015) specified that a convenience sample has weak external validity and is subject to bias, the same type of sample, according to Zikmund et al. (2013), is inexpensive and widely used. Although federal income tax returns in the income tax system consist of individual, corporate, estate, and trust returns, this study used all the income tax collected to compute the total revenue

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neutral revenue needed but, based upon a pro rata basis, only used the individual income tax returns for the comparison. The individual income-based tax liability was compared to a revised consumption-based tax liability for the same composite individuals. It was the intention of this study to observe one sample population paired with observations in the same sample population using a paired-samples *t*-test where the hypothetical sales tax percentage was applied to the funds available for consumption for each individual tax return composite converted from the income tax-base.

Materials/Instrumentation

The materials for the intended study consisted of IRS statistical data of all the individual income tax returns filed for each year of the longitudinal time frame along with other statistical data obtained from additional government agencies and other organization such as the Government Accountability Office (GAO), International Monetary Fund (IMF), and World Bank. The tax return data consisted of a composite of all the actual individual tax returns filed by individual taxpayers in the U.S. for each year used in the study. Each year consisted of composite figures representing over 100,000,000 individual tax returns. To convert these tax returns to a consumption-base, several steps were used. Due to the confidential nature of taxpayer information, it was imperative that the taxpayer's identity be anonymous. Therefore, the secondary data of IRS statistics was used. Each set of tax return totals were converted by starting with the taxable income that was taxed and adjusting it to consumption funds available for spending. The conversion is possible only if certain realisms are used and some assumptions were made. These realisms and assumptions were used to estimate the amount of money each taxpayer could spend or save. The amount of money spent on consumer goods and services would also include the percentage of tax owed at point of sale. Thus, the consumption figure was

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reduced by the tax that would be due. Not all taxpayers conform to all the realisms and assumptions made in this study but the realisms and assumptions made were applied to each tax return consistently. The consumption and saving habits of the taxpayers in general were based upon the researcher's general knowledge of the items available on individual tax returns. The realisms are matter of fact, but the assumptions made are based upon that knowledge.

To convert the actual income tax income to a consumption taxable amount, the following actions were performed:

- Social Security and Medicare taxes deducted from W-2 income were subtracted from income. These figures for each of the 15 years were computed and shown in Table A3.
- interest, dividends and capital gains were subtracted and capital losses (or any other negative figures) were added,
- refunds, credits, or offsets of state and local income taxes remained since they were included in consumption funds as funds available for spending,
- alimony received remained a part of consumption funds but alimony paid out was subtracted since it was considered already spent,
- business income was left as a part of consumption funds,
- individual retirement account (IRA) distributions were added to consumption if a normal distribution and left off if the distribution was rolled-over to another savings IRA,
- pensions and annuities were left as a part of consumption funds since they were assumed to be spending funds,

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- income from rental real estate and royalties were considered as part of consumption funds, whereas income from partnerships, S corporations, and trusts could be either. An assumption was made that these funds were re-invested,
- unemployment funds were left as consumption spending,
- all the Social Security benefits were left as consumption spending,
- other income was left as consumption spending,
- IRA, Keogh, and SEP investments were considered not part of consumption spending and were deducted, and
- Other – depending upon the specific items in the IRS Code each year affecting the returns, other adjustments were made and noted.

Once the conversion of these tax returns was complete, the information was then used along with other government's statistical data to complete the study. The conversion of the income tax returns for each year are shown in Tables A4-A18. The hypothetical consumption tax and its effect on the converted individual tax returns for each tax year was then computed. The converted tax returns in Phase II and the consumption tax percentage computed in Phase I was used to study the effect of changing the current income tax system to a consumption tax for individual taxpayers.

Operational Definitions of Variables

Zikmund, Babin, Carr, and Griffin (2013) defined a *construct* as a specific concept that can be measured by using several variables. The construct in this three-phase quantitative quasi-experimental study was that a consumption tax percentage applied against consumption sales for the year in question would result in revenue neutral individual tax collections for the same year. This study contained two variables, one indirect, which was a hypothetical sales tax percentage

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and one direct which was a convenience sample of actual filed individual income tax returns that were converted from taxable income to taxable consumption. These two variables were computed using several economic models. An economic model is defined by Ouliaris (2011) as ". . . a simplified description of reality, designed to yield hypotheses about economic behavior that can be tested" (p. 1). These economic models are explained further in the *Study Procedures* section.

Study Procedures

This is a records-based, longitudinal, research study where exploratory data analysis (EDA) used secondary data to calculate the revenue neutral governmental income needed to pay government expenses, the consumption funds available for taxing, and the hypothetical sales tax percentage needed to collect the revenue neutral income in a consumption tax system. A conversion of a composite of individual tax returns filed for each year from the income tax-base to a consumption-base was used to establish a relationship of the effect of the hypothetical sales tax percentage upon these converted tax return composites. A paired-samples *t*-test was used to determine whether a consumption tax liability for a group of individual taxpayers was equivalent to an income tax liability for the same group for the various years analyzed in this study. This study was completed in three phases which are described in the next section entitled *Data Collection and Analysis*.

Data Collection and Analysis

Phase I-compute hypothetical consumption tax percentage. Phase I of this study consisted of three steps. The first and second steps was comprised of observational descriptive studies where secondary research data was used to ultimately compute the hypothetical consumption tax percentage for the consumption tax collections. For the first step in Phase I, the researcher used a

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structured review process of secondary research data from the IRS to find the actual income tax revenue collected by the government. This actual revenue collected was converted to the net revenue neutral income needed to be collected by the IRS for the years in question by using a structured data review process of IRS administration expenses. The two figures used for each year was: (a) actual income tax collections (AITC) and (b) IRS expenditures (IRSE). The economic model for this first step was: ITR = AITC – IRSE.

In the second step of Phase I, secondary research data of government statistics on individual consumption was used to compute and describe consumption available for taxing. In addition, data regarding the availability of additional consumption via the shadow economy was used to adjust the consumption available for taxing in the consumption tax scenario. The information used to calculate CFAT was statistical data reported by the U.S for each year and shadow economy figures estimated by Schneider (2014). The data used was: (a) Gross Domestic Product (GDP) figures, (b) shadow economy size (SES), and (c) the amount spent on education (EDU), healthcare (HC), shelter (S), and food prepared at home (F) in the U.S. The economic model for the second step would be: CFAT = GDP + SES – EDU – HC – S – F.

Once the first and second steps of Phase I are complete, the last step of Phase I was to divide the revenue neutral consumption tax income needed for government spending by the consumption available for taxing to compute the hypothetical consumption tax percentage for the consumption tax system. This hypothetical consumption tax percentage was then used to study the comparative similarity of the outcome in Phase III of the study. The two figures used in this economic model were the ITR computed in the first step and the CFAT computed in the second step. The economic model for the third step was: ST% = ITR / CFAT. Once Phase I of the study was complete, Phase II began.

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Phase II-converting individual tax returns to consumption-base. Phase II consisted of converting a composite of approximating 137,500,000 filed tax returns from an income tax-base to a consumption tax-base for each of the 15 tax years used in the study. These converted tax returns were labeled CTR. Each tax return composite needed to be converted from an income-base to a consumption-base because the tax impact on actual individual taxpayers' and their returns filed under a consumption tax was the focus of the study. The conversion method used to convert these returns from an income tax to a consumption tax used seventeen realisms and assumptions about the information on the returns and taxpayer behavior. Rather than list this data excessively, the process was described in detail under the *Assumptions* section. Once the tax returns were converted, then Phase III of the study began.

Phase III-compute consumption sales tax liability. In Phase III of the study, the funds available for consumption for each composite total of individual converted tax returns (CTR) were multiplied by the hypothetical sales tax percentage (ST%) to compute the consumption sales tax liability (CSTL) for each taxpayer group. The two numbers used in this economic model were: the CTRs that were converted in Phase II and the ST% computed in Phase I. Accordingly, the economic model for Phase III was: CSTL = each CTR x ST%. Once Phase III of the study was complete, the paired-t test was completed. This test was used to compare one group of taxpayers under the income tax system for each year to the same group of taxpayers after treatment to simulate a consumption tax.

Trochim et al. (2015) explained a cause-effect relationship might exist because of certain combinations of variables within a study. For this intended study, certain combinations of specific consumer products and services could result in different outcomes. For example, exempting some consumption other than necessities of life or the taxing some human necessities

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could change the regressive nature of the tax. Yet, exempting the same necessities would not change the regressive nature at all. For this reason, all consumption income was assumed to be spent on consumer goods and services except for the necessities of education, health care, shelter, and food prepared at home. These exemptions mirror the income tax system in the U.S. which includes many of these exemptions in the form of the standard and itemized deductions. As mentioned earlier, only specific human necessities were considered exempt.

Assumptions

Trochim and Donnelly (2008) cautions researchers that "all quantitative data is based on qualitative judgment" (p. 144). The secondary data collected for this study is quantitative data reported by government agencies, namely the IRS, GAO, BEA, and IMF. Without any other recourse, and with assurances from Zikmund et al., (2013; 2010) that government research data is trustworthy, it was assumed that the statistical data presented by these agencies were correct and reliable. Also, since a consumption tax is collected on a cash basis when consumers buy consumption goods and services at point of sale, all calculations were considered cash-based where future liability collections were not considered. Other major assumptions made in the collection of data for this quantitative study related to the conversion of the income tax returns to a consumption-base. The conversion was possible only if certain realisms were used and some assumptions were made. These realisms and assumptions were used to estimate the amount of money each taxpayer could spend or save. There were seventeen realisms and assumptions used for converting income-base tax returns to consumption-base. The first thirteen realisms and assumptions are as follows:

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1. Social Security and Medicare taxes are necessary taxes and are not consumption funds and were thus subtracted from earned income. These figures for each of the 15 years were computed and shown in Table A3.
2. Interest, dividends, and capital gains were subtracted from income because the money earned is, in most cases, re-invested and not spent on consumer goods and services.
3. Refunds, credits, or offsets of state and local income taxes were left in income because the check received is usually spent.
4. Alimony received was considered consumption income and was left in the income to be spent.
5. Business income on the tax return was net income from a sole proprietorship which was considered consumption income.
6. IRA distributions were considered income because most of the money received is usually spent. If re-invested or rolled over to another IRA account, it would not show on the return as included in income.
7. Pensions and annuities were left in income since they are retirement funds that are usually spent.
8. Rental real estate, royalties, partnerships, S corporations, trusts, etc. were considered differently.

    a) Net rental real estate income and net royalty income were taxed as consumption income,

    b) Partnership and S corporation income was considered re-invested income, and

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c) Trust income was regarded as income.

9. Farm income was net of any loss and was considered income from a farm to be spent and was subject to tax. It was treated like business income.
10. Unemployment funds were left in the income mix and were considered consumption income.
11. Social Security benefits were all taxed as consumption to be spent because most taxpayers have the check directly deposited into their checking account for spending. Since the figures on the IRS tax returns show only the taxable Social Security benefits, the figure is assumed to be the maxed taxed at 85% and was adjusted to the 100%
12. Other income was left in the consumption-base income as consumer spending income.
13. Capital gains net of capital losses and the other sales of property were considered as being re-invested.

The next four realisms or assumptions are deductions from income. Most of these deductions do not apply to a consumption-base tax. These four deductions are listed next as numbers 14-17.

14. An IRA investment was subtracted from income because this money is used as savings for retirement and was not considered as spent.
15. Self-employment tax shown on the individual tax Form 1040 was subtracted form income just like social security and Medicare tax was subtracted from earned income.
16. Keogh and self-employed SEP and SIMPLE investments were subtracted from income for the same reason the IRA investment was in number 14.

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17. Alimony paid was subtracted from income because the party receiving the alimony income spends it and thus pays the consumption tax.

Not all taxpayers conform to all the realisms and assumptions made above but the realisms and assumptions made were applied to each tax return composite consistently. The consumption and saving habits of taxpayers in general are based upon the researcher's knowledge of her tax clients and taxpayers in general. The realisms are matter of fact, but the assumptions made are based upon that knowledge.

Other assumptions, in addition to the document gathering process and income tax return conversion procedures, also existed. The consumer base of the National Consumption Tax (NCT) was a vital part of the revised tax collection process. With the pre-taxed dollars of the income tax system, the consumer has less to spend. With non-taxed dollars of the consumption tax system, the consumer has money to spend or save. Thus, taxpayers' have a choice. Because it is impossible to know how much any individual will save, it was assumed that individuals will continue to consume as usual. The non-taxed dollars were assumed to be spent. Thus, the consumer tax-base would remain the same or increase. It was also assumed that loopholes would exist. An example of such a loophole would be increased bartering, or black-market sales where goods are sold with no tax. Also, some businesses may not pay the sales tax collected if they collect it at all. Thus, it is assumed that some form of tax evasion will still exist. Once the implementation of the new NCT is accomplished, there would be many past due income tax returns that would need to be filed and back taxes that would need to be collected. It is assumed that the IRS would still need to collect these taxes and that this process would remain separate from the new collection process of the NCT.

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Limitations

A nonprobability sample was used in this proposed quantitative quasi-experimental study. The sample was a convenience sample, which is normally considered to be subject to bias and considered to have weak external validity (Trochim et al., 2015). However, even though the sample was convenient, the secondary data used in this study consisted of 100% of the individual tax returns filed with the IRS for each of the 15 years used in study. The main limitation that existed was the nature of the study itself. The income tax system that currently exists is complicated in nature and the assumptions used to change the system to a consumption tax could be subject to interpretation. The bias that might exist would be these assumptions and realisms used when converting the secondary data set of individual income tax returns to a data set based upon consumption. The assumptions and realisms were compiled by the researcher based upon her knowledge as a CPA and tax preparer. Although the researcher intended to be objective when converting the individual tax return figures, these figures are a composite of, on average, 137,755,662 individual tax returns (see Table A19) reported together which made it difficult in some cases defining the information as investments, income, and human necessity exemptions. To avoid bias and confusion, a list of assumptions and realisms regarding the conversion of the returns was listed. Not all taxpayers conform to all the realisms and assumptions made but the realisms and assumptions made were applied to each individual tax return composite consistently for each year used in the study. All individual tax returns were part of the composite group and thus were treated the same. No novel situations occurred that required a new realism or assumption to be added to the list. The secondary statistical data obtained from government agencies and other organizations, mainly the IRS, GAO. IMF, and World Bank offices, that were used in this records-based research study were considered factual without limitations.

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Delimitations

There were no delimitations to this records-based research study. The scope of the data used was fixed due to the sizes of the individual tax return population reported by the IRS in the SOI-Individual Income Tax yearly reports. All the individual tax returns filed each year were compiled by the IRS for each tax year. There were more than 137,000,000 individual tax returns included in each yearly sample, depending upon how many returns were filed each year. It was a convenience sample of secondary data that was fixed, thus, there was no need to narrow the scope of the study. To increase the scope of the study, rather than one year, 15 years of data was used to give the study a more in-depth analysis.

Ethical Assurances

In this quantitative quasi-experimental, longitudinal, record-based research design, only secondary data were used. Even though secondary data were used because it was time-saving and cost-efficient, Johnston (2014) asserts that secondary data analysis is "a viable method to utilize in the process of inquiry when a systematic process is followed" (p. 619). The secondary data consisted of government and organizational statistics from agencies such as the IRS, GAO, IMF and the World Bank. A composite of individual income tax returns was the major focus of the data collection. Since individual tax return information is confidential information of a sensitive nature for individual taxpayers and could pose a risk to these individuals, using the data accumulated by the IRS in a composite form made the information anonymous in nature. IRS adds a footnote to each year's tax data that states: "Data combined to prevent disclosure of specific taxpayer information" (IRS, SOI Tax Stats-Individual Tax Returns, 2001-2015). No human subjects were involved. Individual income tax return amounts filed by taxpayers for each year used in this longitudinal study were obtained from Statistics of Income (SOI) reports that

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are published by the IRS yearly to report yearly income tax return information. The SOI contains sets of comprehensive statistics regarding 100% of the income tax reported by all business and individual taxpayers when filing their income tax returns. For the individual tax return statistics, an average, 137,755,662 individual tax returns (see Table A19) that were filed each year were compiled and reported for each of the longitudinal years used in the study. Only the numbers of the different incomes and deductions were used with no references to any type of identity information or coding systems. Since all this data was secondary and published for the public, there were no risks or ethical issues that would apply to this data. The researcher believed that this study would meet the requirements for records-based research by the IRB. An expedited review by the IRB was received. The type of review noted was Exempt, or Not Human Subjects Research and the determination of the review was determination approved with no additional IRB oversight required.

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Chapter 4: Findings

The purpose of this quantitative, longitudinal, study was to focus on a composite of individual taxpayers' income tax returns for a fifteen-year period to compare the income-based tax system to a consumption-based tax system. The focus of the study was to investigate the effects the consumption tax would have, compared to the income tax system, on the individual taxpayers and the economy. The aim of this study was to interpret the results to inform government officials, taxpayers, and academics in the business community about the effects of a change from an income tax to a consumption tax. For the researcher, the study will help uncover better ways to inform and help clients understand their tax situation using either tax system. Thus, taxpayers in general will be less confused about taxes and will be able to understand their finances better to and will be better equipped to plan.

In this chapter, the researcher will present and discuss the calculations performed and the analyses carried out for the study. A series of secondary statistics will be presented describing economic and financial data that was relevant to this study. Since this study's data analysis consisted of the conversion of a composite of income tax returns to consumption funds, special statistical assumptions were used. The final data analysis incorporated was a paired t-test on 15 years of paired samples to test for zero differences between the two samples. Two different sets of data were analyzed.

Validity and Reliability of Data

The secondary data collected for this study was quantitative data reported by government agencies, namely the Internal Revenue Service (IRS), Government Accountability Office (GAO), Bureau of Economic Analysis (BEA), and International Monetary Fund (IMF). The secondary

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data used in this study was evaluated for its validity and reliability. The researcher assumed that the statistical data presented by these agencies were correct and thus, reliable. According to Zikmund et al., (2013) "Investigators are naturally more prone to accept data from reliable sources such as the U.S. government (p. 162). In an earlier text, Zikmund et al., (2010) stated "Most of the data published by the federal government can be counted on for accuracy and quality of investigation" (p. 175). In addition to the quality of the data, the data were applicable to this study, especially the individual taxpayers' income tax returns. The composite of individual tax return data used, compiled by the IRS, were easy to obtain and alleviated any possibility of confidential information of U.S. taxpayers being compromised in this study. In addition, this data had the advantage of it being compiled on a national scale and the data was longitudinal for the time needed and each set used the same population over time. The only disadvantage of using this data was that it was a composite of 100% of the taxpayer population for each year and an analysis of each individual taxpayer could not be made when the tax return conversions from income to consumption was made. All taxpayers in each composite total were treated the same using the same assumptions. There was no individuality.

Results

An average of 137,755,662 individual income tax returns (see Table A19) for each year were used to compute the net revenue received by the U.S government from income taxpayers. To protect the identity of individual taxpayers, the IRS reported all the returns as an aggregate for each year. These taxpayers included individuals, businesses, and estates and trusts. To get the data ready for analysis, three phases of calculations were completed for each year. These calculations are shown in Tables A20-A35. The III Phase model is shown in Table 1. Please refer to the model as it is explained.

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Table 1. *III Phase Model*

Phase I Consumption Tax %	Phase II Consumption Funds	Phase III Consumption Tax
1. Net Income Tax Collected	Convert Income Tax Returns to Consumption Funds	Compute Consumption Tax Liability (Phase II X Phase I)
2. Consumption Funds Available		
3. Compute Consumption Tax % (Step 1/Step 2)		

In Phase I of this study, three amounts were computed. The first was the total net revenue needed. This was computed by using the actual income tax revenue received from all the income tax returns (individual, corporate, and trust and estates) and subtracting the operating funds used by the IRS to collect the funds. This same amount of net revenue for each year was considered the revenue neutral amount that needs to be collected for each of the related years. The second amount to be computed was the total U.S. consumption funds available for taxing. To calculate the consumption funds, the yearly GDP figures obtained from The World Bank were used. GDP measures the monetary value of final goods and services that are purchased by the consumer (Callen, 2012). Using the expenditure approach, the value of GDP was used as the value of all the purchases of consumer products and services by individuals, companies, and government units (Callen, 2012). Added to this GDP figure was the shadow economy estimate of consumers that avoided showing income and avoided detection in the GDP figures (Schneider, 2014; Buehn & Schneider, 2011). These consumers purchase goods and would have paid consumption tax.

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Next, the exemptions that will not be taxed, namely education, reading, healthcare, shelter, and food at home, was subtracted. The total result was the total consumption funds available for taxing. The first two figures, the total revenue neutral income tax funds and the total consumption funds available for taxing, were used to complete the final figure in Phase I. The final figure needed was the revenue neutral tax percentage which was calculated by dividing the total revenue neutral income tax funds (Step 1) by the total consumption funds available for taxing (Step 2). Phase I showed the total picture of what the U.S. government needed to collect in revenue and the consumption funds available to collect the funds. Once this was completed, Phase II was the calculation of the consumption funds that taxpayers had available for taxing. This was accomplished by converting 15 years of income tax return information to 15 years of consumption funds available for taxing. Once this was complete, the income tax funds collected by the U.S. government from individual taxpayers and the consumption tax to be paid by individual taxpayers were compared. At this point, the data was ready for analysis. The data analysis used was Micro Soft Excel. The analysis was then enhanced with IBM SPSS Statistics for Windows, Version 24.0 (SPSS).

The first research question being studied was to determine if consumption funds collected would be revenue neutral. The question and the corresponding hypotheses were as follows:

Question 1. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in revenue neutral income for the U.S. government for the longitudinal years in question?

Hypotheses

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$H1_0$. The U.S. Government who collects tax based upon consumption will collect revenue neutral tax, on average, compared to what they collected in taxes based upon income— $H1_0$: $\mu 1 = \mu 2$.

$H1_1$. The U.S. Government who collects tax based upon consumption will not collect revenue neutral tax, on average, compared to what they collected in taxes based upon income — $H1_1$: $\mu 1 \neq \mu 2$.

The sample collected consisted of 15 years of income tax revenue that was paid to the IRS to support government operations. In addition, GDP data of projected shadow economy sizes were collected. Once the data was assembled, a paired *t* test of the different scores for the one population which reflected each condition was used to test the distribution of mean difference scores (Nolan & Heinzen, 2016). The comparison was centered upon the mean difference scores that reflected the conditions that were based upon the null hypothesis. The paired *t* test tested whether the U.S. Government would collect revenue neutral taxes under a consumption tax compared to the collections made under an income tax. The data used for the paired *t* test that used Microsoft Excel and SPSS are shown in Table 2. The excel results are shown in Table 3 and Table 4. The SPSS results are shown in Table 5, Table 6 and Table 7.

Table 2. *Total Projected Tax-Consumption vs. Income (Data for Paired t Test)*

Year	Projected Consumption	Net Income Tax	Difference
2015	2175066293	2175541755	-475462
2014	1989103895	1989212128	-108233
2013	1868260443	1868726518	-466075
2012	1660799427	1661323374	-523947
2011	1581161063	1580898250	262813
2010	1446045062	1446267718	-222656

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2009	1408280226	1408795941	-515715
2008	1773329855	1772972654	357201
2007	1755144646	1754731080	413566
2006	1610204755	1610374186	-169431
2005	1408243698	1408113056	130642
2004	1214634745	1214967105	-332360
2003	1175643282	1175668128	-24846
2002	1244007982	1243557440	450542
2001	1359462960	1359317499	145461
mean	1577959222	1578031122	-71900

Table 3. *Projected Consumption Tax vs. Net Income Tax (Excel Results)*

	Projected Consumption	*Net Income Tax*
Mean	1577959222	1578031122
Variance	8.68179E+16	8.68645E+16
Observations	15	15
Pearson Correlation	0.99999933	
Hypothesized Mean Difference	0	
df	14	
t Stat	-0.79533857	
P(T<=t) one-tail	0.219846717	
t Critical one-tail	1.761310136	
P(T<=t) two-tail	0.439693435	
t Critical two-tail	2.144786688	

Table 4. *Critical Values-Consumption Tax vs. Net Income Tax (Excel Results)*

Mean	-71900
Stand deviation of difference	350124
Standard error of difference	90401.8
t alpha half 95%	2.1447
Lower confidence interval	265785
Upper confidence interval	121985

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Table 5. *Paired Samples Test-Consumption Tax vs. Net Income Tax (SPSS Results)*

		Mean	N	Std Deviation	Std. Error Mean
Pair 1	TotalProjCon	1577959222	15	294648820.6	76077998.34
	Total NetInc	1578031122	15	294727913.4	76098420.03

Table 6. *Paired Samples Test-Correlations-Consumption Tax vs. Net Income Tax (SPSS Results)*

		N	Correlation	Sig.
Pair 1	TotalProjCon & TotalNetInc	15	1.000	0.000

Table 7. *Paired Samples Test-Consumption Tax vs. Net Income Tax (SPSS Results)*

		Mean	Std Deviation	Std. Error Mean	95% Confidence Interval Lower
Pair 1	TotalProjCon - TotalNetInc	-71900	350124.4794	90401.7519	-265792.474

		95% Confidence Interval Upper	*t*	*df*	Sig. (2-tailed)
Pair 1	TotalProjCon - TotalNetInc	121992.4739	-0.795	14	0.440

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The second research question being studied was to determine if consumption taxes collected from taxpayers would result in the same amount of tax for individual taxpayers that they paid in the income tax system. The question and the corresponding hypotheses were stated as follows:

Question 2. After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in the same amount of tax paid by taxpayers under the income tax system for the longitudinal years in question?

Hypotheses

$H2_0$. The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_0$: $\mu 1 = \mu 2$.

$H2_1$. The U.S. taxpayer who pays tax based upon consumption will not pay the same amount of tax, on average, as the tax they paid based upon income —$H2_1$: $\mu 1 \neq \mu 2$.

The sample consisted of 15 years of income tax return composites of actual individual tax returns filed for each year. This data showed the income tax paid by individual taxpayers to support government operations each year. These same income tax returns were then converted to a consumption-base. The projected consumption tax to be paid was computed by multiplying the available consumption funds times the consumption tax percentage computed in Phase I of the study. Both samples were then compared. A paired *t* test of the different scores for the one population which reflected each condition was used to test the distribution of mean difference scores (Nolan & Heinzen, 2016). The comparison was centered upon the mean difference scores that reflected the conditions that were based upon the null hypothesis. The paired *t* test tested whether individual taxpayers would have paid the same tax for the 15 years under the

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consumption tax basis that they paid under the income tax system for the same period. The data used for the paired *t* test is shown in Table 8. The excel results are shown in Table 9 and Table 10. The SPSS results are shown in Table 11, Table 12, and Table 13.

Table 8. *Individual Projected Consumption Tax vs. Income Tax Paid (Data for Paired t Test)*

Year	Projected Consumption Tax	Net Income Tax Paid	Difference
2015	782712825	1453775519	-671062694
2014	706107814	1358093169	-651985355
2013	654127473	1234098995	-579971522
2012	589856069	1191569818	-601713749
2011	556192707	1037484722	-481292015
2010	500892254	944505236	-443612982
2009	473333168	1037484722	-564151554
2008	593997129	1025509017	-431511888
2007	580370498	1092909361	-512538863
2006	524502952	1026331685	-501828733
2005	453923423	928263735	-474340312
2004	399580770	830419041	-430838271
2003	377585076	750024250	-372439174
2002	408337204	797791644	-389454440
2001	456805711	892298267	-435492556
mean	537221671.5	1040037279	-502815607.2

Table 9. *Individual-Projected Consumption Tax vs. Income Tax Paid (Excel Results)*

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	Projected Consumption Tax	*Income Tax Paid*
Mean	537221671.5	1040037279
Variance	1.362E+16	4.04532E+16
Observations	15	15
Pearson Correlation	0.96989109	
Hypothesized Mean Difference	0	
df	14	
t Stat	-21.07160126	
P(T<=t) one-tail	2.64693E-12	
t Critical one-tail	1.761310136	
P(T<=t) two-tail	5.29385E-12	
t Critical two-tail	2.144786688	

Table 10. *Critical Values-Individual-Projected Consumption Tax vs. Income Tax Paid (Excel Results)*

Mean	-502815607.2
Standard deviation of differences	92418058.25
Standard error of differences	23862240.03
t alpha half 95%	2.1447
Lower confidence interval	-553992953.4
Upper confidence interval	-451638261.0

Table 11. *Paired Samples Test-Individual-Projected Consumption Tax vs. Income Tax Paid (SPSS Results)*

	Individual Taxpayers	Mean	N	Std Deviation	Std. Error Mean
Pair 1	ProConTax	537221671.50	15	116704657.9	30133013.09
	NetIncTax	1040037279.00	15	201129873.6	51931510.05

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Table 12. *Paired Samples Test-Correlations-Individual-Projected Tax-Consumption vs. Income (SPSS Results)*

	Individual Taxpayers	N	Correlation	Sig.
Pair 1	ProConTax & NetIncTax	15	0.970	0.000

Table 13. *Paired Samples Test-Individual-Projected Consumption Tax vs. Income Tax Paid (SPSS Results)*

	Individuals	Mean	Std Deviation	Std. Error Mean	95% Confidence Interval Lower
Pair 1	ProConTax - NetIncTax	-502815607	92418058.25	23862240.03	-553995022

	Individuals	95% Confidence Interval Upper	*t*	*df*	Sig. (2-tailed)
Pair 1	TotalProjCon - TotalNetInc	-451636192	-21.072	14	0.000

Evaluation of Findings

The purpose of this study was to focus on a composite of individual taxpayers' tax returns to compare the income-based tax system to a consumption-based tax system and the effects each had on the individual taxpayers and the economy. To prepare the data for analysis, three sets of calculations were performed. First, the revenue neutral income needed by the U.S. government was computed. Second, the consumption tax percentage needed to collect revenue

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neutral tax as previously collected was calculated. Finally, the individual income tax returns filed each year were converted to consumption funds to be taxed using the consumption tax percentage computed in the second calculation. Once the data was calculated, two sets of the data was analyzed using Micro Soft Excel and then enhanced by using IBM SPSS Statistics for Windows, Version 24.0. The first set of data for analysis was a comparison of the total net income tax collected and the total projected consumption tax. A paired *t* test was used to test the following null hypothesis: **$H1_0$.** The U.S. Government who collects tax based upon consumption will collect revenue neutral tax, on average, compared to what they collected in taxes based upon income—$H1_0$: $\mu 1 = \mu 2$. The *t* test results showed the *t* statistic, -0.79534, was not beyond the *t* critical value of 2.1448 (Table 3), thus the null hypothesis was not rejected. The U.S. government will collect, on average, the same amount of taxes under a consumption tax system as they did under an income tax system. The mean difference between the two collection systems was 71,900 (Table 4). The total income tax, on average, collected in the income tax system was $1,578,031,122,000 compared to the total amount, $1,577,959,222,000, which could be collected under a consumption tax system. Since the *t* statistic was less than the critical *t* value, the difference was not significantly different. Because the monetary figures used in the calculations were stated in thousands, the mean difference 71,900 is $71,900,000 in actual dollars. In the income tax system, where collections each year were over $1.5 trillion, a $72 million difference is minor. The percentage of the tax collected under the consumption is close to 100% ($1,577,959,222,000/$1,578,031,122,000 = 0.99954) of that collected under the income tax system. A clearer picture of the difference can be seen in the *Figure1*.

Figure 1. Projected Consumption Tax vs. Net Income Tax (Excel Results)

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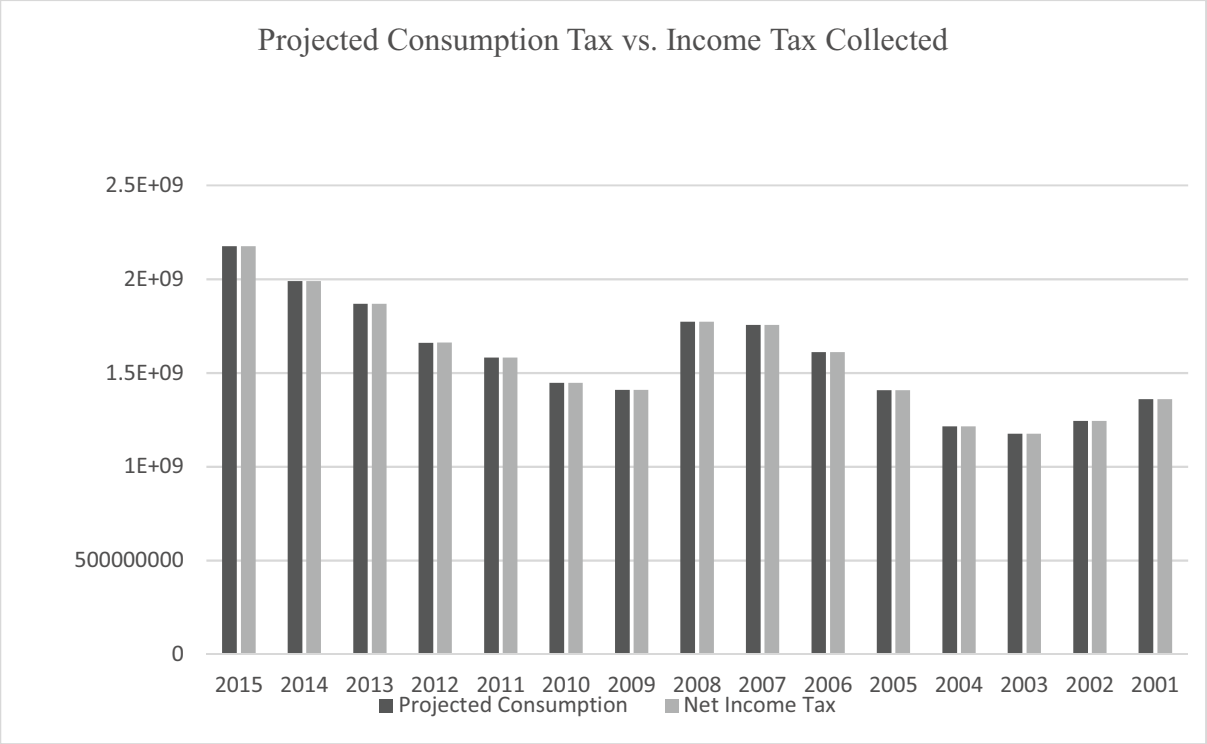

The second set of data for analysis was a comparison of the income tax paid by taxpayers and the projected consumption tax they would pay under a consumption tax system. A paired t test was used to test the following null hypothesis: **$H2_0$.** The U.S. taxpayer who pays tax based upon consumption will pay the same amount of tax, on average, as the tax they paid based upon income —$H2_0$: $\mu 1 = \mu 2$. The *t* test results showed a *t* statistic, -21.07160 (Table 9) which is beyond the *t* critical value of 2.1448 (Table 9), thus the null hypothesis was rejected. The individual taxpayer will not pay, on average, the same amount of taxes under a consumption tax system as they did under an income tax system. When looking at the individual taxpayer that paid taxes in the income tax system, the consumption tax they would have paid in comparison would have been much lower. The mean difference was $502,815,607,000 (Table 9) on average per year. In the data, the monetary values were stated in thousands. Also, when paying a consumption tax at point of sale, there would be no tax burden costs associated with data

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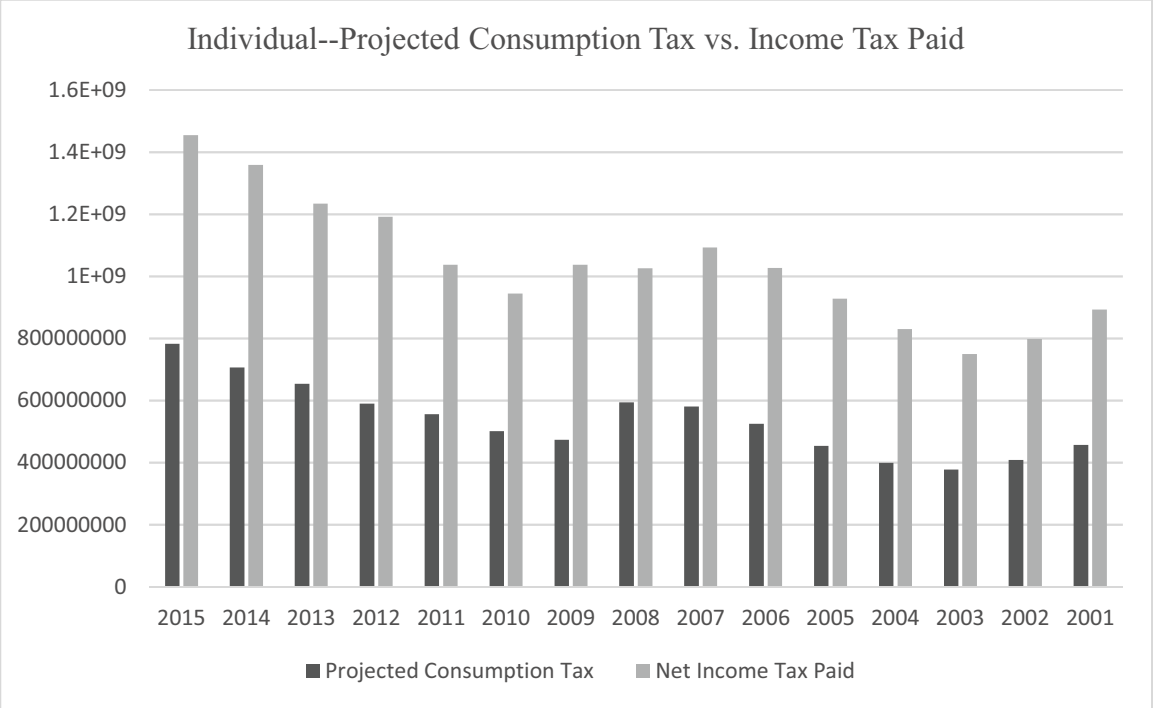
collection, tax preparer services, or other fees. Thus, this would have added another $25,603,620,904 to taxpayers' savings (Table A1). Because of the complexity of the income tax system, these costs were necessary when filing an income tax return. Because of the simplicity of the consumption tax system, these costs would not be necessary. When tax burden savings were added to the savings of tax, taxpayers that paid their income tax would save, on average, $508,419,227,904 each year. The percentage of the tax to be paid by taxpayers under the consumption tax was close to 52% ($537,221,671,500/$1,040,072,790,000) = 0.51652) of that collected under the income tax system. A clearer picture of the difference can be seen in the *Figure 2.*

Figure 2. Individual-Projected Consumption Tax vs. Income Tax Paid (Excel results)



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The reason for this lower tax liability for those who paid tax could be explained by the fact that those individuals in the shadow economy that did not pay tax, were consumers too and would have pay a consumption tax. As seen in Table 14, the shadow economy size averaged about $1.045 trillion each year from 2001 to 2015.

Table 14. *Average Shadow Economy Per Year – 2001-2015*

Year	Shadow Economy Size
2001	$902,855,040
2002	$933,088,690
2003	$978,406,950
2004	$1,031,093,952
2005	$1,073,685,532
2006	$1,039,191,600
2007	$1,042,389,720
2008	$1,030,300,740
2009	$1,095,824,164
2010	$1,077,434,784
2011	$1,086,254,820
2012	$1,130,850,000
2013	$1,101,640,122
2014	$1,095,765,489
2015	$1,064,162,232
Mean	$1,045,529,589

When looking at both the research questions in relation to each other, on average, under a consumption tax, as shown in this study, it was possible for the U.S. government to maintain a collection of revenue neutral taxes while at the same time allowing the U.S. taxpayers a reduction in tax liability. Although this is an ideal situation for both the government and the taxpayers, there are many variables that could enhance or distort this outcome. For example, in a consumption tax system, the tax revenue is based upon spending. Taxpayers have a choice of

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spending or saving what they earn. Choosing to save would have had an adverse effect on the outcome. Although saving is good for the taxpayer and good for the economy, the government would have collected less tax. Another example that would have changed the outcome would be a change in the shadow economy as we know it. Even if the shadow economy participants were revealed by their spending, other tax evasion options could have increased. For example, when dealing with consumption, black markets and bartering could escalate and thus interfere with the collection of consumption tax. A more optimistic example that could enhance the outcome of this study would be that the government cut spending. A reduction is the funds needed would have resulted is less tax needed and thus a lower tax rate. In a tax system, variables are an ongoing phenomenon. Finding a tax system that is simple, inexpensive, and effective is a way to uncomplicated the effects of these variables. A consumption tax could be this system.

Summary

Two questions were asked and answered in this study. The first question compared a total projected consumption tax that could be collected and the actual income tax that was collected for a 15-year period. The second question then compared a total projected consumption tax that would be paid by individual taxpayers compared to the income tax the same taxpayers paid for a 15-year period. The results of a paired *t* test for each question resulted in not rejecting the ($H1_0$) for research question one but rejecting ($H2_0$) for research question two. For research question one, the government would have collected, on average, revenue neutral funds under a consumption tax. Although there is a difference in the two means, the difference is not significantly different because the *t* statistic, 0.79534, was less than the *t* critical value of 2.14478. For research question two, the U.S taxpayer that paid income tax in the 15 years studied would, on average, pay less tax under the consumption tax system. The difference between the

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two means was significantly different because the *t* statistic, -21.0716, was significantly larger than the *t* critical value of 2.14478. According to the results of this study, using the variables stated, it is possible for the U.S. government to maintain a collection of revenue neutral taxes under a consumption tax system and, at the same time, allow the U.S. taxpayers a reduction in tax.

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Chapter 5: Implications, Recommendations, and Conclusions

The U.S. government is a massive business entity that needs funds to operate. To obtain these funds, citizens and business entities in the U.S. are expected to pay tax revenue. The revenue collection system in place consists of diverse types of tax revenue to support the many government sectors that operate. One such collection type is the tax the government imposes on the income of businesses, individuals, estates, and trusts. Of interest in this study is the income tax imposed on individual citizens. To compute and pay their income tax liability, individuals file an income tax return that is based upon a set of complicated rules and regulations known as the IRS Tax Code. This set of rules has been changed and expanded so many times, the U.S. government needs, in addition to operating funds, funds to support the IRS in their education and collection efforts to collect the increasing complex income tax revenue needed. Because the IRS Tax Code is so complicated, the individual taxpayer does not know how to figure their tax liability. The citizens of the U.S. remain confused about how much tax they owe and they spend an excessive amount of their precious earned revenue to get help. The income tax system in the U.S. is considered complex, inefficient, and expensive (Bird, 2013). To make the tax system less complicated, more efficient, and less expensive, a transparent consumption tax has been suggested by many (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). The problem identified in this study was that there is a negative impact on the economy and individual taxpayers because the United States has a complex income tax system rather than a transparent consumption tax.

Changing from an income tax system to a consumption tax has been a debate for as long as the income tax system has been in effect. This debate continues to escalate as the process to file an income tax return becomes more and more complicated and less economical. According

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to Dubay and Burton (2015) only 5 percent of Americans supports the tax system as it is with 71 percent of public opinion supporting reform. Debating the merits of a direct tax on income compared to an indirect tax on consumption can be difficult. Supporters of a change to a transparent consumption tax system have explained structural economic and social welfare efficiencies of the new system as well as the many advantages and disadvantage of many of the political itineraries (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). Choosing a side in the debate would depend upon a knowledge of the many issues that are all intertwined into the philosophical framework of taxes. The practical matter of taxpayer choice based upon individual feelings about family respect, social support, peer esteem, and cultural norms need to be considered. Then there are the ideas set forth by the supporters of a consumption tax system and how it would affect the taxpayers and the economy. Supporters of a change to a transparent consumption tax system have explained the structural economic and social welfare efficiencies of the new system and the many advantages and disadvantage of many of the political itineraries (Amadi & Amadi, 2012; Coy & McCormick, 2011; Hymson, 2013; Walby, 2014). Support for a a consumption tax has usually been explained with political agendas, transparency concerns, and economic efficiencies. Both Boudreau and Dalton (2013) and Mirrlees et al. (2012), have stated that individual taxpayers' concern about how the consumption tax would directly affect them has not been explained. Studies on individual tax returns for a consumption tax system have not been a focus. The purpose of this quantitative study was to focus on individual taxpayers. The researcher studied the effect on taxpayers and the economy of a composite of individual taxpayers' tax returns filed being filed under the income tax system compared to paying a consumption tax at point of purchase of goods and services.

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The initial aim of this research study was to use actual individual tax returns that were prepared by the researcher in her CPA office for several years. However, as the study got to the point of IRB Oversight Board approval, it was decided by the researcher and her committee that, no matter how much the clients' identities were kept secret, the possibility of a client's confidential information being revealed would be too great and IRB approval would be in jeopardy. Thus, the study population was changed to incorporate archival IRS data of a composite of all the individual income tax returns filed each year. In this way, the identity of individual taxpayers would not be possible since the composite figures meshed all the returns together. For each table of data reported, a note was included by the IRS which read: "Data combined to prevent disclosure of specific taxpayer information" (IRS, SOI Tax Stats-Individual Tax Returns, 2015). Since the tax return data for each year was readily available for years all the way back to the inception of the income tax in 1913, a choice for the span of the longitudinal study was decided. The researcher chose a 15-year period to give a better focus and enhanced meaning to the study. The collection of archival data was then started after the research design was approved by the Institutional Review Board (IRB) of Northcentral University as research that does not meet the federal definition for research involving human subjects.

The rest of the chapter is divided into four sections. The first section, implications, contains a brief discussion of the two research questions. Section two, recommendations for application, describes how this research can be applied and used by government, business, CPAs, and even individuals. The next section is recommendations for future research. Finally, the chapter is concluded with several key points.

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Implications

The data were collected from several secondary sources and then used to complete the three phases of the study to prepare the data for analysis. In Phase I the revenue neutral consumption tax was computed. Each tax category collected by the IRS is used to support specialized areas of government expenses. If the system is changed, revenue neutral funds still need to be collected in the new system to keep a smooth transition from one tax system to the other. Changing the income tax system to a consumption tax system would fall under this scenario.

To complete Phase I, three sets of actions were completed. The first set was to compute the net revenue collections collected for the U.S. government for each of the 15 years. This consisted of using secondary data from the IRS where the actual income tax collections for each year were reported. In a consumption tax system, the IRS would not be needed to educate taxpayers and enforce the collection of tax. Thus, the actual funds used by the IRS to collect the income tax was subtracted. The answer resulted in the net income tax collected. Once the net income tax collected was calculated, the next step was to compute the net consumption funds that would be available for taxing in a consumption tax system. Secondary data regarding the GDP were collected from the BEA (2017) and The World Bank (2017). Using the expenditure approach, the value of GDP was used as the value of all the purchases of consumer products and services by individuals, companies, and government units (Callen, 2012). The estimated shadow economy size was added to the GDP figures. The shadow economy was estimated by using the shadow economy percentages of GDP that were estimated by Schneider (2014) for each year. The next step was to subtract the human necessities considered exempt from tax. The exemptions subtracted were expenditures for human necessities of education, shelter, healthcare, and food

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prepared at home. These figures were obtained from the annual aggregate consumer expenditures reported each year by the BEA. This process resulted in net consumption funds that could be taxed. Once the net consumption funds were computed then the final step of Phase I, the estimated consumption tax rate percentage, was computed. To compute the consumption tax rate percentage, the total net income tax collections was divided by the total consumption funds available for taxing. Each year was computed.

At this point, the first analysis was done using Microsoft Excel and enhanced by IBM SPSS Statistics for Windows, Version 24.0 to answer the first research question. The first research question was: After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in revenue neutral income for the U.S. government for the longitudinal years in question? A paired *t* test showed that the tax revenue that would be collected from a consumption tax system would be no different than the tax collected from an income tax system. Thus, question one was answered; the tax collected using the consumption tax percentage would be revenue neutral. The tax rate on consumption was, on average, approximately 12%. Depending upon the assumptions that are made by the person or persons using this study, the average, the low of 10.4% or the high of 13.57% consumption tax rate percentage could be used (see Table 15). A different percentage could even be used if it is found that citizens of the U.S. started saving more and spending less. Thus, the answer to question one provided a starting point for looking at a consumption tax percentage rate. Changes to the criteria put forth in this study would change the tax rate percentage.

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Table 15. *Average Consumption Tax Rate % Per Year – 2001-2015*

Year	Consumption Tax % Rate
2015	13.21
2014	12.48
2013	12.12
2012	11.10
2011	10.99
2010	10.41
2009	10.57
2008	13.07
2007	13.07
2006	12.49
2005	11.44
2004	10.50
2003	10.85
2002	12.05
2001	13.57
Mean	11.86

Once the revenue neutral tax was tested, then Phase II of the study was computed. For Phase II of the study, the composite of individual income tax returns filed for each year were converted to consumption funds. The income tax returns filed for each of the 15 years in the study were obtained from the IRS 2015 Data Book (IRS, 2016). Each set of returns were converted to consumption funds. The conversion process started with earned income. Then items that were exempt or funds that would not be available for spending were subtracted and funds collected that were not classified as *earned* income were added. Once this was complete, Phase II was complete and the consumption funds available for spending were used to complete Phase III.

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For Phase III of the study, the consumption tax to be paid by U.S. taxpayers, was computed. Each year of the converted income tax returns were used. The converted consumption funds available for taxing for each year were multiplied by the consumption tax percentage for the same years that were computed in Phase I. The results showed the consumption tax liability that U.S. taxpayers would owe. The consumption tax that would have been paid was then compared to the actual income tax that these same taxpayers paid under the income tax system.

At this point, the second analysis was done using Microsoft Excel and enhanced by IBM SPSS Statistics for Windows, Version 24.0 to answer the second research question. The second research question was: After conversion from a tax based upon income to a tax based upon consumption, will the hypothetical revenue neutral consumption tax percentage result in the same amount of tax paid by taxpayers under the income tax system for the longitudinal years in question? A paired *t* test showed that the tax revenue liability for taxpayers under a consumption tax system would be significantly different than the tax paid by the same taxpayers under the income tax system. Thus, question two was answered; the tax paid by compliant taxpayers who paid tax in the income tax system would not be the same under a consumption tax system. This does not mean that every taxpayer would pay less or more because some income tax returns result in a tax liability and some don't. But it can be said that the total tax liability to be paid by the total composite of compliant taxpayers would be significantly less than they paid under an income tax system. It can be assumed that the reason for the lower tax liability for these compliant taxpayers is that the shadow economy would be exposed. Under a consumption tax system, the purchase of consumer goods and services are taxed. Citizens that comprise the shadow economy who did not pay tax on income, would spend the unreported income on consumer goods. The compliant taxpayers would no longer be paying a higher tax to compensate

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for those not paying. Even though the average 12 percent consumption tax rate seems high for a consumption tax, most citizens in the U.S. would be paying less tax. This is because of the human necessity exemptions that would not be taxed. Again, as with the answer to question one, the answer to question two provides a starting point for looking at a consumption tax percentage rate and the consumption tax. The results allow the user or users of this study to compare this study, in general terms, to others that have come before it. However, this study is unique because the studies supporting the pros and cons of changing the income tax system to a consumption tax was not the focus. This study was based upon an individual income tax return population being taxed under a consumption tax instead. This study provides a unique look at tax consequences for individual taxpayers instead of political agendas for the government.

Recommendations for Application

The income tax system in the U.S. has been used by individual taxpayers for more than a century. Since the income tax system is law, taxpayers' have become complacent with the complicated system and how the weaknesses in the system negatively affect their financial lives (Hurley & Hetherington, 2013). Even though there have been many consumption tax proposals that feature political agendas to support why the consumption tax is less negative than the income tax (Mirrlees et al., 2012), there has not been a study of actual individual income tax returns to show how a change to a consumption tax system would change the individuals' tax liability (Boudreau & Dalton, 2013). Individual taxpayers do not know how a transparent consumption tax could affect the negative tax impacts for them in a less complicated tax system (Hurley & Hetherington, 2013). Gaining an understanding of how actual income taxes currently paid correspond to consumption taxes that would be paid if the system was changed, might show whether a consumption tax system would or would not have less of a negative impact on

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individual taxpayers and the economy. Taxpayers have a right to assume that the tax system they obey is equitable, transparent, convenient, and efficient. The income tax system in the U.S. that has been used since 1913 is just the opposite. It is not fair, too complex, not easy to report, and too expensive to operate. From the results presented in this study, all taxpayers in a consumption tax system would, 1) pay the same percentage of tax, 2) know exactly what their tax liability is, 3) have the convenience to pay with each purchase of goods and services, and 4) know that the costs for the collection of taxes is minimal. Knowing the pros and cons of each of the tax programs that could replace the current income tax system has been explained in-depth throughout the years and individual tax payers are still confused as to which one is best. Looking at individual situations is the only way for taxpayers to know how a system would affect them. In this study, the individual taxpayer was the focus. Individual taxpayers, or others who work with individuals and their taxes, could use the results of this study to look at an individual tax situation to gain knowledge regarding how the consumption tax would work for them. Individual taxpayers have the right to know how much their tax liability is.

Recommendations for Future Research

There has been many research projects regarding fixing the income tax system in the U.S. These studies range from staying with the current system, simplifying the system, or a complete overhaul of the system by changing it to some other form of tax. One suggestion of changing the system is to change to a consumption tax based upon taxing the sales of products and services at point of sale. Five examples of many that have been proposed are: (a) The USA Tax, (b) VAT, (c) The Fair Tax, (d) McCaffery's Spending Tax, and (e) The Hall Rabushka Flat Consumption Tax (Hymson, 2013). A National Consumption Tax (NCT) is used in this study. A NCT sales tax system would tax all sales of goods and services except for the human necessities of education,

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shelter, healthcare, and food prepared at home. With all the different consumption tax proposals that have been suggested, taxpayers are still confused as to which system is best for them. Although the consumption tax appeals to the general taxpayer because it would get rid of the IRS Tax Code, make taxes transparent, and get rid of the IRS, these same taxpayers have a concern about how the consumption tax would directly affect them. Both Boudreau and Dalton (2013) and Mirrlees et al. (2012), recognized that this direct effect has not been explained. They both suggested that studies on individual tax returns for a consumption tax system should be a focus. This study is that focus.

The original focus of this research study was to use actual individual tax returns prepared by the researcher in her CPA office. Due to confidentially concerns and time restraints for getting permission from clients, secondary data of individual income tax returns gathered by the IRS was used. Although this data was sufficient for this study, the data was consolidated, and not specific to everyone. The conversion of income tax returns would show a more individualized result if specific individual tax returns could be used. Using specific individual tax returns would be the main recommendation for future research. In addition, developing a client survey to accompany the income tax return research would be a significant addition to a study. When working with tax clients, it is evident that they have a general idea of what they hear about regarding different tax systems proposed but they really don't know the specifics or how they would affect taxes. Getting this information from a client population by using a survey would be valuable, not only to the taxpayer clients and the CPA, but to the government and other taxpayers as well. Although this study focused on individual income tax returns, businesses, estates, and trusts also pay income tax. A study on these other entities and the tax consequences of a consumption tax would be another suggestion for further research. While the income tax system

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in the U.S. provides most of the support for government, other taxes contribute as well. Excise taxes on commodity services and products also is an area where individuals pay tax. Excise taxes are charged on such services as cable bills and phone bills. Also, there are excise taxes on gasoline, alcohol, tobacco, and more. Although these taxes are separate from consumption tax, they are taxes all the same. A significant study could be developed regarding excise taxes. The study could be either separate from consumption taxes or in addition to them. The total tax system in the U.S. is vast, segregated, and complex. There are many opportunities for tax research. The problem is trying to keep the study to a specific area and small enough to be meaningful.

Conclusions

Changing the income tax system to a consumption tax is a popular research topic. Consumption tax advocates believe that a tax paid on consumption better matches the ideals of a worthy tax system suggested by Adam Smith (1776/2005) more than 240 years ago. His four canons of taxation, namely equity, certainty, convenience, and efficiency represent a tax system that is fair, simple, easy to pay, and not expensive to operate. These canons of taxation have never matched the income tax system used in the U.S. Many suggestions for a consumption tax system have been publicized, each with political agendas and the pros and cons as to how each would measure up to the income tax system in place. The focus of this research study reached beyond the norm and looked at changing the individual income tax system to a consumption tax system, not from the viewpoint of political agendas or the system's pros and cons, but from the perspective of the individual taxpayers. This focus was suggested by both Mirrlees et al. (2012) and Boudreau and Dalton (2013) who recognized the void. To follow their suggestion and

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expand upon the research already done, this research study was done to show how a consumption tax would affect the individual taxpayer and the economy in which they live.

The model used for the study was simple to compute but wide-ranging in the outcome. Using a consumption tax rate percentage that would result in revenue neutral income for the government, the results showed that, on average, the compliant individual taxpayer that paid taxes would have a significant lower tax liability under the consumption tax system. Although this result was interesting, it was not surprising. The consumption tax system would require all citizens to pay tax on purchases of goods and services. This means that those who evaded taxes before, by not declaring income, would pay tax when they purchased goods and services. The most interesting part of the study was the conversion of the individual tax returns. Like anything else, looking closer at the whole shows such surprising realities. Looking at a span of individual tax returns over time showed trends in the economy that don't show in just one year. The two are closely connected. Taxes are a significant part of the economy and the lives of individuals.

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Appendix A: Data

Table A 2. Estimation of Taxpayer Burden for Tax Years 2001-2015

	Individual Income Tax Form			Individual Taxpayer
Year	Type of Form[a]	Cost Per Form[b]	Number of Returns Filed[c]	Taxpayer Burden
2015	1040	$270.00	85,421,307	$23,063,752,890
	1040A	$90.00	41,133,634	$3,702,027,060
	1040EZ	$40.00	24,010,976	$960,439,040
	Total		150,565,917	- 27,726,218,990
2014	1040	$260.00	84,573,730	$21,989,169,800
	1040A	$80.00	40,853,006	$3,268,240,480
	1040EZ	$40.00	23,259,850	$930,394,000
	Total		148,686,586	$26,187,804,280
2013	1040	$280.00	84,484,712	$23,655,719,360
	1040A	$90.00	39,788,033	$3,580,922,970
	1040EZ	$30.00	23,463,055	$703,891,650
	Total		147,735,800	$27,940,533,980
2012	1040	$270.00	83,225,812	$22,470,969,240
	1040A	$90.00	38,607,172	$3,474,645,480
	1040EZ	$40.00	23,115,401	$924,616,040
	Total		144,948,385	$26,870,230,760
2011	1040	$290.00	83,962,280	$24,349,061,200
	1040A	$120.00	38,974,100	$4,676,892,000
	1040EZ	$50.00	22,643,149	$1,132,157,450
	Total		145,579,529	$30,158,110,650
2010	1040	$300.00	83,754,981	$25,126,494,300
	1040A	$130.00	41,093,748	$5,342,187,240

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	1040EZ	$60.00	18,007,553	$1,080,453,180
	Total		142,856,282	$31,549,134,720
2009	1040	$280.00	83,829,478	$23,472,253,840
	1040A	$96.00	39,872,097	$3,827,721,312
	1040EZ	$96.00	16,830,540	$1,615,731,840
	Total		140,532,115	$28,915,706,992
2008	1040	$264.00	83,884,991	$22,145,637,624
	1040A	$73.00	3,655	$266,815
	1040EZ	$73.00	21,924,264	$1,600,471,272
	Total		105,812,910	$23,746,375,711
2007	1040	$267.00	85,745,233	$22,893,977,211
	1040A	$72.00	34,025,192	$2,449,813,824
	1040EZ	$72.00	23,260,036	$1,674,722,592
	Total		143,030,461	$27,018,513,627
2006	1040	$269.00	83,518,153	$22,466,383,157
	1040A	$72.00	32,250,392	$2,322,028,224
	1040EZ	$72.00	22,651,954	$1,630,940,688
	Total		138,420,499	$26,419,352,069
2005	1040	$231.00	81,144,182	$18,744,306,042
	1040A	$62.00	31,607,574	$1,959,669,588
	1040EZ	$62.00	21,710,782	$1,346,068,484
	Total		134,462,538	$22,050,044,114
2004	1040	$231.00	80,278,569	$18,544,349,439
	1040A	$62.00	30,878,413	$1,914,461,606
	1040EZ	$62.00	21,227,937	$1,316,132,094
	Total		132,384,919	$21,774,943,139
2003	1040	$231.00	80,193,000	$18,524,583,000
	1040A	$62.00	29,827,000	$1,849,274,000
	1040EZ	$62.00	20,551,000	$1,274,162,000
	Total		130,571,000	$21,648,019,000

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2002	1040	$231.00	80,490,588		$18,593,325,828
	1040A	$62.00	28,906,249		$1,792,187,438
	1040EZ	$62.00	20,805,000		$1,289,910,000
	Total		130,201,837	-	21,675,423,266
2001	1040	$231.00	80,344,000		$18,559,464,000
	1040A	$62.00	28,482,000		$1,765,884,000
	1040EZ	$62.00	21,630,000		$1,341,060,000
	Total		130,456,000		$21,666,408,000

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Table A 3. *Estimation of FICA & MC Deduction for Tax Years 2001-2015*

	FICA & MC		Salaries & Wages[a]		
Year	FICA/MC %	Total FICA/MC	Under $100,000	Over $100,000	Total Salaries/Wages
2015			$3,416,550,858	$3,861,635,440	$7,278,186,298
	FICA @ 6.20%		$211,826,153		
	MC @ 1.45%		$49,539,987	$55,993,714	
	Totals	$317,359,855	$261,366,141	$55,993,714	
2014			$3,370,001,892	$3,552,127,556	$6,922,129,448
	FICA @ 6.20%		$208,940,117		
	MC @ 1.45%		$48,865,027	$51,505,850	
	Totals	$309,310,994	$257,805,145	$51,505,850	
2013			$3,344,079,131	$3,282,965,800	$6,627,044,931
	FICA @ 6.20%		$207,332,906		
	MC @ 1.45%		$48,489,147	$47,603,004	
	Totals	$303,425,058	$255,822,054	$47,603,004	
2012			$3,266,839,640	$3,190,163,550	$6,457,003,190
	FICA @ 6.20%		$202,544,058		
	MC @ 1.45%		$47,369,175	$46,257,371	
	Totals	$296,170,604	$249,913,232	$46,257,371	

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2011			$3,265,239,892	$2,896,287,069	$6,161,526,961
	FICA @ 4.20%		$137,140,075		
	MC @ 1.45%		$47,345,978	$41,996,163	
	Totals	$226,482,216	$184,486,054	$41,996,163	
2010			$3,231,863,085	$2,688,323,024	$5,920,186,109
	FICA @ 6.20%		$200,375,511		
	MC @ 1.45%		$46,862,015	$38,980,684	
	Totals	$286,218,210	$247,237,526	$38,980,684	
2009			$3,241,885,206	$2,555,218,262	$5,797,103,468
	FICA @ 6.20%		$200,996,883		
	MC @ 1.45%		$47,007,335	$37,050,665	
	Totals	$285,054,883	$248,004,218	$37,050,665	
2008			$3,324,852,495	$2,697,611,138	$6,022,463,633
	FICA @ 6.20%		$206,140,855		
	MC @ 1.45%		$48,210,361	$39,115,362	
	Totals	$293,466,577	$254,351,216	$39,115,362	
2007			$3,337,814,153	$2,598,477,188	$5,936,291,341
	FICA @ 6.20%		$206,944,477		
	MC @ 1.45%		$48,398,305	$37,677,919	
	Totals	$293,020,702	$255,342,783	$37,677,919	
2006			$3,231,177,139	$2,346,935,510	$5,578,112,649
	FICA @ 6.20%		$200,332,983		

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	MC @ 1.45%		$46,852,069	$34,030,565	
	Totals	$281,215,616	$247,185,051	$34,030,565	
2005			$3,172,187,322	$2,064,328,089	$5,236,515,411
	FICA @ 6.20%		$196,675,614		
	MC @ 1.45%		$45,996,716	$29,932,757	
	Totals	$272,605,087	$242,672,330	$29,932,757	
2004			$3,144,737,458	$1,833,131,232	$4,977,868,690
	FICA @ 6.20%		$194,973,722		
	MC @ 1.45%		$45,598,693	$26,580,403	
	Totals	$267,152,818	$240,572,416	$26,580,403	
2003			$3,075,374,124	$1,621,127,020	$4,696,501,144
	FICA @ 6.20%		$190,673,196		
	MC @ 1.45%		$44,592,925	$23,506,342	
	Totals	$258,772,462	$235,266,120	$23,506,342	
2002			$3,063,664,013	$1,530,894,213	$4,594,558,226
	FICA @ 6.20%		$189,947,169		
	MC @ 1.45%		$44,423,128	$22,197,966	
	Totals	$212,145,135	$189,947,169	$22,197,966	
2001			$3,020,484,314	$1,590,947,150	$4,611,431,464
	FICA @ 6.20%		$187,270,027		
	MC @ 1.45%		$43,797,023	$23,068,734	
	Totals	$254,135,784	$231,067,050	$23,068,734	

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Table A 4. *2015 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	150,565,918	
Adjusted gross income (less deficit)	10,172,951,296	
Salaries and wages:	7,278,186,298	7,278,186,298
Social Security & Medicare deductions (See Table A2)		-317,359,855
Taxable interest:	73,329,112	
Tax-exempt interest	57,040,888	
Ordinary dividends:	229,721,327	
Qualified dividends:	181,615,058	
State income tax refunds:	28,124,473	28,124,473
Alimony received:	9,654,891	9,654,891
Business or profession net income:	375,046,912	375,046,912
Business or profession net loss:	62,117,940	-62,117,940
Net capital gain	607,950,634	
Capital gain distributions	73,453,403	
Net capital loss:	18,466,584	
Sales of property other than capital assets, net gain:	22,744,833	
Sales of property other than capital assets, net loss:	18,238,114	
Taxable Individual Retirement Arrangement	250,683,526	250,683,526
Taxable pensions and annuities:	700,815,387	700,815,387
Rent and royalty net income:	92,102,437	92,102,437
Rent and royalty net loss:	42,407,552	-42,407,552
Rent and royalty net income less loss:	49,694,885	
Partnership and S corporation net income:	655,169,213	
Partnership and S corporation net loss:	74,869,150	
Partnership and S corporation net	580,300,063	
Estate and trust net income:	26,174,791	26,174,791
Estate and trust net loss:	4,480,833	-4,480,833
Estate and trust net income less loss:	21,693,958	
Farm net income:	14,977,389	14,977,389
Farm net loss:	26,445,074	-26,445,074
Unemployment compensation:	27,146,461	27,146,461
Taxable Social Security benefits: 85%	277,814,515	326,840,606
Total statutory adjustments:	142,049,300	
Educator expenses:	967,285	-967,285
Certain business expenses of reservists	597,847	
Payments to an Individual Retirement	13,253,050	-13,253,050
Student loan interest deduction:	13,643,332	-13,643,332
Tuition and fees deduction:	3,972,397	-3,972,397
Health savings account deduction:	4,172,701	-4,172,701
Moving expenses adjustment:	3,721,613	

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Self-employment tax deduction:	27,874,627	
Self-employed health insurance deduction:	25,732,341	-25,732,341
Payments to a self-employed Keogh:	22,176,881	-22,176,881
Penalty on early withdrawal of savings:	77,286	
Alimony paid:	11,904,390	-11,904,390
Domestic production activities deduction:	12,798,480	
Other adjustments	1,027,525	
Total exemptions:	1,145,862,358	
Total deductions:	2,108,106,095	
Total standard deduction	904,867,107	-904,867,107
Basic standard deduction:	876,612,501	
Additional standard deduction:	28,254,607	
Total itemized deductions	1,203,238,988	
Medical and dental expenses deduction:	84,180,300	-84,180,300
Taxes paid deduction:	539,813,263	
State and local income taxes	338,281,259	-338,281,259
Income taxes:	321,321,321	
General sales taxes:	16,959,939	
Interest paid deduction:	294,456,248	
Total mortgage Interest paid	278,548,442	-278,548,442
Charitable contributions deduction:	201,264,228	-201,264,228
Taxable income:	7,332,804,126	
Alternative minimum tax:	26,434,663	
Excess advance premium tax credit repayment:	2,606,284	
Income tax before credits:	1,513,655,190	
Total tax credits	75,915,766	
Child care credit:	3,652,473	
Credit for the elderly or disabled:	6,066	
Child tax credit:	27,355,136	
Education tax credits:	10,399,602	-10,399,602
Retirement savings contributions credit:	1,460,024	
Adoption credit:	260,481	
Residential energy credits:	2,099,740	
Foreign tax credit:	21,073,546	
General business credit:	2,509,816	
Prior year minimum tax credit:	947,239	
Total refundable credits:	107,065,684	
Total refundable credits	5,749,658	
Total refundable credits	10,143,897	
Total refundable credits, refundable portion:	91,172,129	
Total earned income credit (EIC):	69,781,235	
EIC used to offset income tax before credits:	1,497,684	
EIC used to offset other taxes:	8,416,295	
Excess EIC, refundable portion:	59,867,257	
Total additional child tax credit:	26,966,249	
Refundable additional child tax cr used	1,239,269	
Refundable additional child tax cr refundable	25,726,981	
Total American opportunity credit:	8,765,616	
Refundable Am opp cr used	3,925,208	
Refundable Am opp cr	254,872	

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Refundable Am opp cr refundable portion:	4,585,536	
Total net premium tax credit:	1,486,187	
Total premium tax credit:	17,988,592	
Advance payment of premium tax credit:	19,978,820	
Self-employment tax:	55,711,916	-55,711,916
Health care individual responsibility payment:	3,018,133	
Total additional Medicare tax:	8,599,053	
Net investment income tax:	18,331,173	
Total income tax:	1,453,775,519	
Total tax liability:	1,520,922,683	
Total Consumption Funds		6,707,866,686

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

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Table A 5. *2014 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	148,686,586	
Adjusted gross income (less deficit)	9,667,712,667	
Salaries and wages:	6,922,129,448	6,922,129,448
Social Security & Medicare deductions (See Table 2A)		-309,310,994
Taxable interest:	71,951,118	
Tax-exempt interest	57,016,775	
Ordinary dividends:	218,664,608	
Qualified dividends:	165,967,717	
State income tax refunds:	27,094,453	27,094,453
Alimony received:	9,599,302	9,599,302
Business or profession net income:	353,386,072	353,386,072
Business or profession net loss:	63,967,080	-63,967,080
Net capital gain	586,538,691	
Capital gain distributions	78,993,120	
Net capital loss:	17,458,667	
Sales of property other than capital assets, net gain:	17,931,591	
Sales of property other than capital assets, net loss:	22,277,351	
Taxable Individual Retirement Arrangement	234,164,835	234,164,835
Taxable pensions and annuities:	675,553,358	675,553,358
Rent and royalty net income:	102,785,667	102,785,667
Rent and royalty net loss:	42,655,947	-42,655,947
Rent and royalty net income less loss:	60,129,720	
Partnership and S corporation net income:	586,368,567	
Partnership and S corporation net loss:	71,291,585	
Partnership and S corporation net income less loss:	515,076,981	
Estate and trust net income:	27,028,195	27,028,195
Estate and trust net loss:	1,114,782	-1,114,782
Estate and trust net income less loss:	25,913,413	
Farm net income:	18,030,674	18,030,674
Farm net loss:	23,890,373	-23,890,373
Unemployment compensation:	33,391,100	33,391,100
Taxable Social Security benefits: Assumed to be 85%	263,156,415	309,595,782
Total statutory adjustments:	138,024,579	
Educator expenses:	974,538	-974,538
Certain business expenses of reservists	537,681	
Payments to an Individual Retirement Arrangement:	13,441,567	-13,441,567
Student loan interest deduction:	12,949,100	-12,949,100
Tuition and fees deduction:	3,887,056	-3,887,056
Health savings account deduction:	3,947,223	-3,947,223
Moving expenses adjustment:	3,772,220	

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Self-employment tax deduction:	26,885,812	
Self-employed health insurance deduction:	24,788,963	-24,788,963
Payments to a self-employed retirement (Keogh) plan:	20,804,233	-20,804,233
Penalty on early withdrawal of savings:	130,407	
Alimony paid:	12,497,192	-12,497,192
Domestic production activities deduction:	11,559,610	
Other adjustments	1,744,175	
Total exemptions:	1,127,413,961	
Total deductions:	2,037,010,300	
Total standard deduction	882,210,263	-882,210,263
Basic standard deduction:	855,035,834	
Additional standard deduction:	27,171,944	
Total itemized deductions (after limitation):	1,154,800,037	
Medical and dental expenses deduction:	81,336,454	-81,336,454
Taxes paid deduction:	508,335,971	
State and local income taxes	315,646,008	-315,646,008
Income taxes:	299,139,387	
General sales taxes:	16,506,621	
Interest paid deduction:	297,369,137	
Total mortgage Interest paid deduction:	281,128,173	-281,128,173
Charitable contributions deduction:	189,882,422	-189,882,422
Taxable income:	6,919,673,678	
Alternative minimum tax:	24,627,471	
Excess advance premium tax credit repayment:	1,399,317	
Income tax before credits:	1,414,669,248	
Total tax credits	72,967,417	
Child care credit:	3,553,853	
Credit for the elderly or disabled:	7,010	
Child tax credit:	27,349,812	
Education tax credits:	10,637,335	-10,637,335
Retirement savings contributions credit:	1,403,781	
Adoption credit:	365,280	
Residential energy credits:	1,690,753	
Foreign tax credit:	18,831,673	
General business credit:	2,125,609	
Prior year minimum tax credit:	910,277	
Total refundable credits:	107,504,094	
Total refundable credits used to offset income tax before credits:	5,629,616	
Total refundable credits used to offset other taxes:	9,948,303	
Total refundable credits, refundable portion:	91,926,175	
Total earned income credit (EIC):	69,740,827	
EIC used to offset income tax before credits:	1,407,636	
EIC used to offset other taxes:	8,289,129	
Excess EIC, refundable portion:	60,044,063	
Total additional child tax credit:	27,466,889	
Refundable additional child tax cr used to offset other taxes:	1,210,748	
Refundable additional child tax cr refundable portion:	26,256,141	
Total American opportunity credit:	9,257,858	
Refundable Am opp cr used to offset income tax before credits:	4,010,963	
Refundable Am opp cr used to offset other taxes:	279,475	

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Refundable Am opp cr refundable portion:	4,967,420	
Total net premium tax credit:	1,003,110	
Total premium tax credit:	11,222,430	
Advance payment of premium tax credit:	12,006,924	
Self-employment tax:	53,666,189	-53,666,189
Health care individual responsibility payment:	1,655,759	
Total additional Medicare tax:	7,712,949	
Net investment income tax:	17,588,758	
Total income tax:	1,358,093,169	
Total tax liability:	1,419,614,722	
Total Consumption Funds		6,364,022,994

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

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Table A 6. *2013 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	147,735,801	
Adjusted gross income (less deficit)	9,110,586,632	
Salaries and wages:	6,627,044,931	6,627,044,931
Social Security & Medicare deductions (See Table A2)		-303,425,058
Taxable interest:	79,307,517	
Tax-exempt interest	62,246,443	
Ordinary dividends:	190,668,767	
Qualified dividends:	141,074,936	
State income tax refunds:	25,922,917	25,922,917
Alimony received:	8,940,728	8,940,728
Business or profession net income:	341,064,794	341,064,794
Business or profession net loss:	55,392,081	-55,392,081
Net capital gain	436,308,574	
Capital gain distributions	45,220,532	
Net capital loss:	20,794,828	
Sales of property other than capital assets, net gain:	21,611,541	
Sales of property other than capital assets, net loss:	21,913,684	
Taxable Individual Retirement Arrangement distributions:	213,556,898	213,556,898
Taxable pensions and annuities:	651,943,383	651,943,383
Rent and royalty net income:	106,187,219	106,187,219
Rent and royalty net loss:	54,633,898	-54,633,898
Partnership and S corporation net income:	557,259,568	
Partnership and S corporation net loss:	74,746,173	
Estate and trust net income:	22,827,583	22,827,583
Estate and trust net loss:	3,679,364	-3,679,364
Farm net income:	19,421,491	19,421,491
Farm net loss:	25,884,248	-25,884,248
Unemployment compensation:	52,184,191	52,184,191
Taxable Social Security benefits:	245,369,544	288,670,052
Total statutory adjustments:	133,130,319	
Educator expenses:	987,160	-987,160
Certain business expenses of reservists, etc.	580,586	
Payments to an Individual Retirement Arrangement:	13,268,417	-13,268,417
Student loan interest deduction:	11,752,918	-11,752,918
Tuition and fees deduction:	4,405,364	-4,405,364
Health savings account deduction:	3,602,542	-3,602,542
Moving expenses adjustment:	3,582,999	
Self-employment tax deduction:	26,040,280	
Self-employed health insurance deduction:	24,433,182	-24,433,182

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Payments to a self-employed retirement (Keogh) plan:	20,163,195	-19,217,028
Penalty on early withdrawal of savings:	282,651	
Alimony paid:	11,319,486	-11,319,486
Domestic production activities deduction:	11,124,260	
Other adjustments	1,493,082	
Total exemptions:	1,116,232,654	
Total deductions:	1,989,470,009	
Total standard deduction	854,600,884	-854,600,884
Basic standard deduction:	828,759,969	
Additional standard deduction:	25,839,360	
Total itemized deductions:	1,134,869,124	
Medical and dental expenses deduction:	82,071,488	-82,071,488
Taxes paid deduction:	486,405,284	
State and local taxes	303,342,305	-303,342,305
Income taxes:	287,098,038	
General sales taxes:	16,244,267	
Interest paid deduction:	307,763,490	
Total home mortgage interest deduction:	292,907,615	-292,907,615
Charitable contributions deduction:	178,952,904	-178,952,904
Taxable income:	6,409,682,294	
Alternative minimum tax:	22,502,417	
Income tax before credits:	1,293,961,330	
Total tax credits	71,541,645	
Child care credit:	3,512,842	
Credit for the elderly or disabled:	8,350	
Child tax credit:	27,474,394	
Education tax credits:	10,874,001	-10,874,001
Retirement savings contributions credit:	1,339,926	
Adoption credit:	232,094	
Residential energy credits:	1,628,443	
Foreign tax credit:	17,372,374	
General business credit:	2,209,075	
Prior year minimum tax credit:	1,004,475	
Total earned income credit (EIC):	69,447,080	
EIC used to offset income tax before credits:	1,303,280	
EIC used to offset other taxes:	7,886,826	
EIC, refundable portion:	60,256,974	
Total refundable American Opportunity credit:	9,409,397	
Refundable American Opportunity credit used to offset	4,122,614	
Refundable American Opportunity credit used to offset	251,948	
Refundable American Opportunity credit refundable portion:	5,034,835	
Total additional child tax credit:	28,364,887	
Additional child tax credit used to offset other taxes:	1,152,166	
Additional child tax credit refundable portion:	27,212,721	
Total Regulated Investment Company credit:	39,301	
Regulated Investment Company credit used to offset	21,390	
Regulated Investment Company credit used to offset other taxes:	48	
Regulated Investment Company credit refundable portion:	17,863	
Total refundable prior year minimum tax credit:	18,469	
Refundable prior year minimum tax credit used to offset	15,369	

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Refundable prior year minimum tax credit used to offset	536	
Refundable prior year minimum tax credit refundable portion:	2,563	
Total health insurance credit:	56,427	
Health insurance credit used to offset income tax before credits:	30,279	
Health insurance credit used to offset other taxes:	2,307	
Health insurance credit refundable portion:	23,841	
Self-employment tax:	51,795,409	-51,795,409
Total additional Medicare tax:	6,637,266	
Net investment income tax:	11,679,306	
Total income tax:	1,234,098,995	
Total tax liability:	1,290,494,472	
Total Consumption Funds		6,051,218,835

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

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Table A 7. *2012 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	144,948,385	
Adjusted gross income (less deficit)	9,042,368,989	
Salaries and wages:	6,457,003,190	6,457,003,190
Social Security & Medicare deductions (See Table A2)		-296,170,604
Taxable interest:	89,608,695	
Tax-exempt interest	65,336,547	
Ordinary dividends:	237,009,844	
Qualified dividends:	188,877,385	
State income tax refunds:	26,051,319	26,051,319
Alimony received:	8,448,328	8,448,328
Business or profession net income:	338,857,446	338,857,446
Business or profession net loss:	54,633,426	-54,633,426
Net capital gain	498,692,343	
Capital gain distributions	17,612,233	
Net capital loss:	24,089,163	
Sales of property other than capital assets, net gain:	15,683,414	
Sales of property other than capital assets, net loss:	26,953,421	
Taxable Individual Retirement Arrangement distributions:	229,039,795	229,039,795
Taxable pensions and annuities:	623,275,150	623,275,150
Rent and royalty net income:	102,769,309	102,769,309
Rent and royalty net loss:	55,724,659	-55,724,659
Partnership and S corporation net income:	561,435,966	
Partnership and S corporation net loss:	71,939,537	
Estate and trust net income:	21,918,998	21,918,998
Estate and trust net loss:	1,498,986	-1,498,986
Farm net income:	20,856,330	20,856,330
Farm net loss:	25,913,372	-25,913,372
Unemployment compensation:	71,504,641	71,504,641
Taxable Social Security benefits:	224,680,535	264,330,041
Total statutory adjustments:	129,374,193	
Educator expenses:	972,449	-972,449
Certain business expenses of reservists, etc.	518,442	
Payments to an Individual Retirement Arrangement:	12,048,729	-12,048,729
Student loan interest deduction:	10,785,546	-10,785,546
Tuition and fees deduction:	4,736,807	-4,736,807
Health savings account deduction:	3,199,728	-3,199,728
Moving expenses adjustment:	3,010,491	
Self-employment tax deduction:	25,564,221	
Self-employed health insurance deduction:	23,055,702	-23,055,702

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Payments to a self-employed retirement (Keogh) plan:	19,217,028	-19,217,028
Penalty on early withdrawal of savings:	432,195	
Alimony paid:	12,562,610	-12,562,610
Domestic production activities deduction:	11,005,522	
Other adjustments	2,125,773	
Total exemptions:	1,097,471,129	
Total deductions:	1,986,486,031	
Total standard deduction	802,096,115	-802,096,115
Basic standard deduction:	778,168,926	
Additional standard deduction:	23,904,241	
Total itemized deductions:	1,184,389,916	
Medical and dental expenses deduction:	83,098,999	-83,098,999
Taxes paid deduction:	473,288,959	
State and local income taxes	293,174,713	-293,174,713
Income taxes:	277,075,934	
General sales taxes:	16,098,779	
Interest paid deduction:	340,989,032	
Total home mortgage interest deduction:	326,286,141	-326,286,141
Charitable contributions deduction:	179,059,057	-179,059,057
Taxable income:	6,356,630,161	
Alternative minimum tax:	29,120,958	
Income tax before credits:	1,263,297,489	
Total tax credits	71,727,671	
Child care credit:	3,457,717	
Credit for the elderly or disabled:	8,860	
Child tax credit:	27,932,433	
Education tax credits:	10,701,456	-10,701,456
Retirement savings contributions credit:	1,220,809	
Residential energy credits:	1,269,568	
Foreign tax credit:	18,044,839	
General business credit:	1,901,495	
Prior year minimum tax credit:	795,932	
Total earned income credit (EIC):	65,408,702	
EIC used to offset income tax before credits:	1,229,492	
EIC used to offset other taxes:	6,880,453	
EIC, refundable portion:	57,298,757	
Total refundable American Opportunity credit:	8,969,989	
Refundable American Opportunity credit used to offset	4,099,742	
Refundable American Opportunity credit used to offset	271,134	
Refundable American Opportunity credit refundable portion:	4,599,113	
Total additional child tax credit:	28,099,060	
Additional child tax credit used to offset other taxes:	1,146,809	
Additional child tax credit refundable portion:	26,952,251	
Total Regulated Investment Company credit:	143,196	
Regulated Investment Company credit used to offset	27,848	
Regulated Investment Company credit used to offset	948	
Regulated Investment Company credit refundable portion:	114,400	
Total adoption credit:	28,355	
Adoption credit used to offset income tax before credits:	10,074	
Adoption credit used to offset other taxes:	0	

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Adoption credit refundable portion:	18,280	
Total refundable prior year minimum tax credit:	458,106	
Refundable prior year minimum tax credit used to offset	346,176	
Refundable prior year minimum tax credit used to offset	6,203	
Refundable prior year minimum tax credit refundable portion:	105,728	
Total health insurance credit:	24,756	
Health insurance credit used to offset income tax before credits:	14,131	
Health insurance credit used to offset other taxes:	900	
Health insurance credit refundable portion:	9,725	
Self-employment tax:	45,243,716	-45,243,716
Total income tax:	1,191,569,818	
Total tax liability:	1,235,478,192	
Total Consumption		5,903,874,704

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 8. *2011 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	145,579,530	
Adjusted gross income (less deficit)	8,292,393,204	
Salaries and wages:	6,161,526,961	6,161,526,961
Social Security & Medicare deductions (See Table A2)		-226,482,216
Taxable interest:	98,356,849	
Tax-exempt interest	66,639,737	
Ordinary dividends:	169,550,560	
Qualified dividends:	125,191,743	
State income tax refunds:	25,620,717	25,620,717
Alimony received:	8,201,903	8,201,903
Business or profession net income:	319,286,114	319,286,114
Business or profession net loss:	52,436,123	-52,436,123
Net capital gain	310,896,415	
Capital gain distributions	13,550,709	
Net capital loss:	27,296,431	
Sales of property other than capital assets, net gain:	11,580,564	
Sales of property other than capital assets, net loss:	25,839,094	
Taxable Individual Retirement Arrangement distributions:	216,294,925	216,294,925
Taxable pensions and annuities:	590,383,592	590,383,592
Rent and royalty net income:	93,594,726	93,594,726

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Rent and royalty net loss:	58,713,835	-58,713,835
Partnership and S corporation net income:	458,870,831	
Partnership and S corporation net loss:	78,250,171	
Estate and trust net income:	18,859,988	18,859,988
Estate and trust net loss:	1,120,181	-1,120,181
Farm net income:	16,383,985	16,383,985
Farm net loss:	23,494,561	-23,494,561
Unemployment compensation:	92,709,719	71,504,641
Taxable Social Security benefits:	202,974,835	238,793,924
Total statutory adjustments:	120,286,462	
Educator expenses:	976,767	-976,767
Certain business expenses of reservists, etc.	518,382	
Payments to an Individual Retirement Arrangement:	11,255,268	-11,255,268
Student loan interest deduction:	9,826,305	-9,826,305
Tuition and fees deduction:	4,357,612	-4,357,612
Health savings account deduction:	2,934,461	-2,934,461
Moving expenses adjustment:	4,170,682	
Self-employment tax deduction:	24,112,872	
Self-employed health insurance deduction:	22,114,796	-22,114,796
Payments to a self-employed retirement (Keogh)	17,621,794	-17,621,794
Penalty on early withdrawal of savings:	2,089,469	
Alimony paid:	10,339,024	-10,339,024
Domestic production activities deduction:	8,447,895	
Other adjustments	1,412,611	
Total exemptions:	1,076,128,195	
Total deductions:	1,940,352,305	
Total standard deduction	774,073,808	-774,073,808
Basic standard deduction:	751,058,261	
Additional standard deduction:	22,985,385	
Total itemized deductions:	1,166,278,497	
Medical and dental expenses deduction:	82,154,035	-82,154,035
Taxes paid deduction:	450,763,322	
State and local income taxes	270,951,014	-270,951,014
Income taxes:	255,171,898	
General sales taxes:	15,779,117	
Interest paid deduction:	371,622,696	
Total home mortgage interest deduction:	358,774,706	-358,774,706
Charitable contributions deduction:	160,336,603	-160,336,603
Taxable income:	5,695,765,605	
Alternative minimum tax:	27,021,186	
Income tax before credits:	1,107,934,134	
Total tax credits	70,450,947	
Child care credit:	3,482,560	
Credit for the elderly or disabled:	16,623	
Child tax credit:	28,295,971	
Education tax credits:	12,572,522	-12,572,522
Retirement savings contributions credit:	1,140,959	
Residential energy credits:	1,709,046	
Foreign tax credit:	13,485,943	
General business credit:	1,842,613	

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Prior year minimum tax credit:	545,769	
Total earned income credit (EIC):	64,411,121	
EIC used to offset income tax before credits:	1,099,646	
EIC used to offset other taxes:	6,690,796	
EIC, refundable portion:	56,620,678	
Total American opportunity credit:	11,690,654	
Refundable American opportunity credit used to offset	4,727,606	
Refundable American opportunity credit used to offset	298,149	
Refundable American opportunity credit refundable portion:	6,664,899	
Total additional child tax credit:	29,040,027	
Additional child tax credit used to offset other taxes:	1,074,599	
Additional child tax credit refundable portion:	27,965,428	
Total first-time homebuyer credit:	98,709	
First-time homebuyer credit used to offset	30,480	
First-time homebuyer credit used to offset	2,378	
First-time homebuyer credit refundable portion:	65,851	
Total Regulated Investment Company credit:	1,325,540	
Regulated Investment Company credit used to offset	27,924	
Regulated Investment Company credit used to offset	28	
Regulated Investment Company credit refundable portion:	1,297,588	
Total adoption credit:	579,536	
Adoption credit used to offset income tax before credits:	188,244	
Adoption credit used to offset other taxes:	8,028	
Adoption credit refundable portion:	383,264	
Total refundable prior year minimum tax credit:	540,681	
Refundable prior year minimum tax credit used to offset	442,446	
Refundable prior year minimum tax credit used to offset	14,024	
Refundable prior year minimum tax credit refundable portion:	84,211	
Total health insurance credit:	53,923	
Health insurance credit used to offset income tax before credits:	28,417	
Health insurance credit used to offset other taxes:	3,112	
Health insurance credit refundable portion:	22,394	
Self-employment tax:	42,824,983	-42,824,983
Total income tax:	1,037,484,722	
Total tax liability:	1,078,896,610	
Total Consumption		5,617,090,862

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 9. *2010 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	142,856,282	
Adjusted gross income (less deficit)	8,045,020,527	

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Salaries and wages:	5,920,186,109	5,920,186,109
Social Security & Medicare deductions (See Table A2)		-286,218,210
Taxable interest:	117,869,310	
Tax-exempt interest:	69,221,407	
Ordinary dividends:	155,453,034	
Qualified dividends:	115,605,831	
State income tax refunds:	25,244,094	25,244,094
Alimony received:	8,587,978	8,587,978
Business or profession net income:	307,490,422	307,490,422
Business or profession net loss:	52,254,773	-52,254,773
Net capital gain:	320,126,367	
Capital gain distributions:	5,842,520	
Net capital loss:	29,732,934	
Sales of property other than capital assets, net gain:	10,646,805	
Sales of property other than capital assets, net loss:	28,616,716	
Taxable Individual Retirement Arrangement distributions:	192,590,593	192,590,593
Taxable pensions and annuities:	567,746,880	567,746,880
Rent and royalty net income:	86,770,707	86,770,707
Rent and royalty net loss:	60,131,011	-60,131,011
Partnership and S corporation net income:	450,637,636	
Partnership and S corporation net loss:	87,015,077	
Estate and trust net income:	19,943,526	19,943,526
Estate and trust net loss:	1,451,225	-1,451,225
Farm net income:	13,575,330	13,575,330
Farm net loss:	23,302,471	-23,302,471
Unemployment compensation:	121,101,218	121,101,218
Taxable Social Security benefits:	192,700,608	226,706,598
Total statutory adjustments:	115,232,950	
Educator expenses:	927,901	-927,901
Certain business expenses of reservists, etc.	490,260	
Payments to an Individual Retirement Arrangement:	11,713,234	-11,713,234
Student loan interest deduction:	9,298,678	-9,298,678
Tuition and fees deduction:	4,383,982	-4,383,982
Health savings account deduction:	2,772,307	-2,772,307
Moving expenses adjustment:	2,636,778	
Self-employment tax deduction:	22,515,749	
Self-employed health insurance deduction:	21,180,593	-21,180,593
Payments to a self-employed retirement (Keogh) plan:	17,201,923	-17,201,923
Penalty on early withdrawal of savings:	2,141,056	
Alimony paid:	10,054,212	-10,054,212
Domestic production activities deduction:	8,171,498	
Other adjustments	1,656,941	
Total exemptions:	1,053,677,881	
Total deductions:	1,911,465,276	
Total standard deduction:	743,284,578	-743,284,578
Basic standard deduction:	721,558,846	

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Additional standard deduction	21,725,732	
Total itemized deductions (after limitation):	1,168,180,698	
Itemized deductions in excess of limitation:	654,307	
Medical and dental expenses deduction:	82,903,037	-82,903,037
Taxes paid deduction:	432,611,536	
State and local income taxes	253,982,187	-253,982,187
Income taxes:	238,019,649	
General sales taxes:	15,962,538	
Interest paid deduction:	402,049,295	
Total home mortgage interest:	380,676,165	-380,676,165
Charitable contributions deduction:	158,187,787	-158,187,787
Taxable income:	5,458,994,693	
Alternative minimum tax:	24,309,578	
Income tax before credits:	1,056,272,937	
Total tax credits	111,767,702	
Child care credit:	3,452,202	
Credit for the elderly or disabled:	14,051	
Child tax credit:	28,692,548	
Education tax credits:	12,459,021	-12,459,021
Retirement savings contributions credit:	1,049,749	
Residential energy credits:	6,301,094	
Foreign tax credit:	13,097,303	
General business credit:	1,663,038	
Prior year minimum tax credit:	638,835	
Total Making work pay credit:	54,718,281	
Making work pay credit used to offset	37,317,086	
Making work pay credit used to offset	3,822,387	
Making work pay credit refundable portion:	13,578,808	
Total earned income credit (EIC):	60,931,712	
EIC used to offset income tax before credits:	460,585	
EIC used to offset other taxes:	4,946,755	
EIC refundable portion:	55,524,372	
Total additional child tax credit:	28,113,542	
Additional child tax credit used to offset	918,366	
Additional child tax credit refundable portion:	27,195,176	
Total American opportunity credit:	10,748,301	
American opportunity credit used to offset	4,323,011	
American opportunity credit used to offset	346,260	
American opportunity credit refundable portion:	6,079,030	
Total first-time homebuyer credit:	2,294,470	
First-time homebuyer credit used to offset	1,285,311	
First-time homebuyer credit used to offset	40,033	
First-time homebuyer credit refundable portion:	969,127	
Total adoption credit:	1,216,411	
Adoption credit used to offset income tax before credits:	193,144	
Adoption credit used to offset other taxes:	34,536	
Adoption credit refundable portion:	988,731	
Total refundable prior year minimum tax credit:	765,882	
Refundable prior year minimum tax credit used to offset	508,072	
Refundable prior year minimum tax credit used to offset	23,249	

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Refundable prior year minimum tax credit refundable portion:	234,561	
Self-employment tax:	45,022,813	-45,022,813
Total income tax:	944,505,236	
Total tax liability:	986,772,646	
Total Consumption		5,312,537,347

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 10. *2009 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	140,532,115	
Adjusted gross income (less deficit)	7,648,676,270	
Salaries and wages:	5,797,103,468	5,797,103,468
Social Security & Medicare deductions (See Table A2)		-285,054,883
Taxable interest:	148,292,561	
Tax-exempt interest:	68,382,089	
Ordinary dividends:	147,144,977	
Qualified dividends:	112,590,344	
State income tax refunds:	28,528,315	28,528,315
Alimony received:	8,356,158	8,356,158
Business or profession net income:	295,277,183	295,277,183
Business or profession net loss:	55,736,863	-55,736,863
Net capital gain:	240,530,591	
Capital gain distributions:	2,263,502	
Net capital loss:	31,919,981	
Sales of property other than capital assets, net gain:	8,083,053	
Sales of property other than capital assets, net loss:	25,263,769	
Taxable Individual Retirement Arrangement distributions:	132,979,694	132,979,694
Taxable pensions and annuities:	531,132,961	531,132,961
Rent and royalty net income:	82,400,420	82,400,420
Rent and royalty net loss:	62,929,530	-62,929,530
Partnership and S corporation net income:	427,916,480	
Partnership and S corporation net loss:	124,855,093	
Estate and trust net income:	18,798,329	18,798,329
Estate and trust net loss:	2,029,490	-2,029,490
Farm net income:	12,869,592	12,869,592
Farm net loss:	25,591,776	-25,591,776
Unemployment compensation in excess of $2,400 per recipient:	84,092,522	84,092,522

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Taxable Social Security benefits:	176,122,458	207,202,892
Total statutory adjustments:	109,015,422	
Educator expenses:	983,216	-983,216
Certain business expenses of reservists,etc.	576,694	
Payments to an Individual Retirement Arrangement:	11,493,415	-11,493,415
Student loan interest deduction:	8,397,082	-8,397,082
Tuition and fees deduction:	5,439,714	-5,439,714
Health savings account deduction:	2,492,032	-2,492,032
Moving expenses adjustment:	2,074,641	
Self-employment tax deduction:	22,217,200	
Self-employed health insurance deduction:	19,963,550	-19,963,550
Payments to a self-employed retirement (Keogh) plan:	17,501,797	-17,501,797
Penalty on early withdrawal of savings:	1,495,136	
Alimony paid:	9,249,622	-9,249,622
Domestic production activities deduction:	5,714,609	
Other adjustments	1,248,821	
Total exemptions:	1,032,899,119	
Total deductions:	1,918,264,196	
Total standard deduction:	752,398,173	-752,398,173
Basic standard deduction:	713,501,506	
Additional standard deduction:	21,451,410	
Increase in standard deduction	13,396,796	
Total itemized deductions (after limitation):	1,165,866,022	
Itemized deductions in excess of limitation:	12,127,117	
Medical and dental expenses deduction:	78,489,285	-78,489,285
Taxes paid deduction:	421,930,827	
State and local income taxes:	244,564,731	-244,564,731
Income taxes:	229,290,638	
General sales taxes:	15,274,093	
Interest paid deduction:	432,757,674	-432,757,674
Charitable contributions deduction:	148,594,527	-148,594,527
Taxable income:	5,107,861,921	
Alternative minimum tax:	20,204,674	
Income tax before credits:	978,255,840	
Total tax credits:	110,207,348	
Child care credit:	3,346,081	
Credit for the elderly or disabled:	8,023	
Child tax credit:	28,584,022	
Education tax credits:	10,981,087	-10,981,087
Retirement savings contributions credit:	1,058,651	
Adoption credit:	280,603	
Residential energy credits:	5,943,126	
Foreign tax credit:	12,938,622	
General business credit:	1,237,780	
Prior year minimum tax credit:	730,408	
Total making work pay credit:	51,099,849	
Making work pay credit used to offset	34,674,354	
Making work pay credit used to offset	3,446,159	
Making work pay credit refundable portion:	12,979,336	
Total earned income credit (EIC):	60,426,876	

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EIC used to offset income tax before credits:	492,308	
EIC used to offset other taxes:	4,816,120	
Excess EIC refundable portion:	55,118,448	
Total refundable education credit:	7,711,336	
Refundable education credit used to offset	3,549,154	
Refundable education credit used to offset other taxes:	221,967	
Refundable education credit refundable portion:	3,940,214	
Total first-time homebuyer credit:	9,715,356	
First-time homebuyer credit used to offset	4,837,874	
First-time homebuyer credit used to offset other taxes:	217,777	
First-time homebuyer credit refundable portion:	4,659,706	
Total refundable prior year minimum tax credit:	2,211,594	
Refundable prior year minimum tax credit used to offset	865,920	
Refundable prior year minimum tax credit used to offset	23,668	
Refundable prior year minimum tax credit refundable portion:	1,322,006	
Self-employment tax:	44,425,902	
Additional child tax credit:	27,744,075	
Total income tax:	868,049,646	
Total tax liability:	910,001,338	
Refundable prior year minimum tax credit used to offset	508,072	
Refundable prior year minimum tax credit used to offset	23,249	
Refundable prior year minimum tax credit refundable portion:	234,561	
Self-employment tax:	45,022,813	
Total income tax:	944,505,236	
Total tax liability:	986,772,646	
Self-employment tax:	42,824,983	-42,824,983
Total income tax:	1,037,484,722	
Total tax liability:	1,078,896,610	
Total Consumption		4,981,268,104

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 11. *2008 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	142,350,256	
Adjusted gross income (less deficit)	8,213,442,867	
Salaries and wages:	6,022,463,633	6,022,463,633
Social Security & Medicare deductions (See Table A2)		-293,466,577
Taxable interest:	197,166,925	
Tax-exempt interest	72,586,685	
Ordinary dividends:	197,602,724	
Qualified dividends:	144,840,020	
State income tax refunds:	25,260,849	25,260,849

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Alimony received:	8,254,879	8,254,879
Business or profession net income:	308,133,596	308,133,596
Business or profession net loss:	58,509,927	-58,509,927
Net capital gain	446,595,066	
Capital gain distributions	21,972,213	
Net capital loss:	28,417,726	
Sales of property other than capital assets, net gain:	10,436,594	
Sales of property other than capital assets, net loss:	17,807,063	
Taxable Individual Retirement Arrangement distributions:	160,022,157	160,022,157
Taxable pensions and annuities:	515,035,286	515,035,286
Rent and royalty net income:	92,793,355	92,793,355
Rent and royalty net loss:	63,632,958	-63,632,958
Partnership and S corporation net income:	468,560,093	
Partnership and S corporation net loss:	135,082,672	
Estate and trust net income:	17,056,025	17,056,025
Estate and trust net loss:	2,511,370	-2,511,370
Farm net income:	13,114,524	13,114,524
Farm net loss:	25,894,327	-25,894,327
Unemployment compensation:	43,911,028	43,911,028
Taxable Social Security benefits:	169,670,897	199,612,820
Total statutory adjustments:	115,901,028	
Educator expenses:	957,289	-957,289
Certain business expenses of reservists, etc.	414,943	
Payments to an Individual Retirement Arrangement:	11,905,552	-11,905,552
Student loan interest deduction:	7,761,966	-7,761,966
Tuition and fees deduction:	11,031,337	-11,031,337
Health savings account deduction:	2,129,150	-2,129,150
Moving expenses adjustment:	2,995,993	
Self-employment tax deduction:	22,588,905	
Self-employed health insurance deduction:	19,257,165	-19,257,165
Payments to a self-employed retirement (Keogh) plan:	18,499,501	-18,499,501
Penalty on early withdrawal of savings:	371,912	
Alimony paid:	9,313,168	-9,313,168
Domestic production activities deduction:	6,959,041	
Other adjustments	1,585,910	
Total exemptions:	983,256,537	
Total deductions:	1,960,087,456	
Total standard deduction:	699,190,365	-699,190,365
Basic standard deduction:	666,727,034	N/A
Additional standard deduction:	20,184,197	N/A
Total itemized deductions (after limitation):	1,260,897,091	N/A
Itemized deductions in excess of limitation:	16,849,836	N/A
Medical and dental expenses deduction:	74,530,672	-74,530,672
Taxes paid deduction:	447,682,524	
State and local income taxes	272,394,387	-272,394,387
Income taxes:	254,836,486	

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General sales taxes:	17,557,892	
Interest paid deduction:	481,166,292	-481,166,292
Charitable contributions deduction:	161,869,762	-161,869,762
Taxable income:	5,629,893,896	
Alternative minimum tax:	22,223,196	
Income tax before credits:	1,099,247,705	
Total tax credits	73,739,010	
Child care credit:	3,561,436	
Credit for the elderly or disabled:	10,209	
Child tax credit:	30,713,081	
Education tax credits:	7,732,554	-7,732,554
Retirement savings contributions credit:	993,687	
Adoption credit:	354,490	
Residential energy credits:	219,805	
Foreign tax credit:	15,121,256	
General business credit:	1,317,496	
Prior year minimum tax credit:	976,587	
First-time homebuyer credit:	8,301,644	
Recovery rebate credit:	11,579,431	
Self-employment tax:	45,169,679	-45,169,679
Total earned income credit (EIC):	51,596,164	
EIC used to offset income tax before credits:	978,766	
EIC used to offset other taxes:	5,560,408	
Excess EIC, refundable portion:	45,056,991	
Additional child tax credit:	20,511,290	
Refundable prior year minimum tax credit:	2,392,027	
Total income tax:	1,025,509,017	
Total tax liability:	1,070,367,059	
Total Consumption		5,138,734,154

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 12. *2007 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	143,030,461	
Adjusted gross income (less deficit)	8,531,396,107	
Salaries and wages:	5,936,291,341	5,936,291,341
Social Security & Medicare deductions (See Table A2)		-293,020,702
Taxable interest:	231,533,659	
Tax-exempt interest	76,071,765	
Ordinary dividends:	214,602,175	
Qualified dividends:	142,968,704	

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State income tax refunds:	25,102,093	25,102,093
Alimony received:	8,330,494	8,330,494
Business or profession net income:	316,576,566	316,576,566
Business or profession net loss:	52,570,799	-52,570,799
Net capital gain	749,142,977	
Capital gain distributions	86,375,840	
Net capital loss:	16,550,418	
Sales of property other than capital assets, net gain:	11,750,123	
Sales of property other than capital assets, net loss:	9,205,398	
Taxable Individual Retirement Arrangement distributions:	148,543,305	148,543,305
Taxable pensions and annuities:	504,106,952	504,106,952
Rent and royalty net income:	79,631,034	79,631,034
Rent and royalty net loss:	60,896,603	-60,896,603
Partnership and S corporation net income:	471,414,946	
Partnership and S corporation net loss:	90,200,748	
Estate and trust net income:	16,254,546	16,254,546
Estate and trust net loss:	1,290,666	-1,290,666
Farm net income:	10,862,108	10,862,108
Farm net loss:	24,116,600	-24,116,600
Unemployment compensation:	29,752,241	29,752,241
Taxable Social Security benefits:	169,112,251	198,955,589
Total statutory adjustments:	118,152,497	
Educator expenses:	936,226	-936,226
Certain business expenses of reservists, etc.	428,090	
Payments to an Individual Retirement Arrangement:	13,191,054	-13,191,054
Student loan interest deduction:	7,513,854	-7,513,854
Tuition and fees deduction:	10,647,111	-10,647,111
Health savings account deduction:	1,447,829	-1,447,829
Medical savings account deduction:	15,771	-15,771
Moving expenses adjustment:	2,872,755	
Self-employment tax deduction:	23,000,491	
Self-employed health insurance deduction:	19,360,871	-19,360,871
Payments to a self-employed retirement (Keogh) plan:	20,143,628	-20,143,628
Penalty on early withdrawal of savings:	1,582,390	
Alimony paid:	9,024,966	
Domestic production activities deduction:	6,639,450	
Other adjustments:	1,255,655	
Total exemptions:	954,799,390	
Total deductions:	1,941,302,670	
Total standard deduction:	671,612,131	-671,612,131
Basic standard deduction:	650,995,128	
Additional standard deduction:	20,617,003	
Total itemized deductions (after limitation):	1,269,690,539	
Itemized deductions in excess of limitation:	35,146,670	
Medical and dental expenses deduction:	75,428,123	-75,428,123
Taxes paid deduction:	446,395,960	

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State and local income taxes	271,539,747	-271,539,747
Income taxes:	253,235,796	
General sales taxes:	18,303,951	
Interest paid deduction:	502,340,630	-502,340,630
Charitable contributions deduction:	174,504,204	-174,504,204
Taxable income:	5,932,306,076	
Alternative minimum tax:	20,915,080	
Income tax before credits:	1,155,078,777	
Total tax credits	62,170,319	
Child care credit:	3,524,008	
Credit for the elderly or disabled:	12,296	
Child tax credit:	31,753,697	
Education tax credits:	6,988,853	-6,988,853
Retirement savings contributions credit:	997,343	
Adoption credit:	384,523	
Residential energy credits:	1,026,245	
Foreign tax credit:	13,991,686	
General business credit:	718,864	
Prior year minimum tax credit:	1,020,767	
Self-employment tax:	45,992,187	-45,992,187
Total earned income credit (EIC):	49,696,835	
EIC used to offset income tax before credits:	948,515	
EIC used to offset other taxes:	5,189,831	
Excess EIC, refundable portion:	43,558,489	
Additional child tax credit:	16,828,692	
Refundable prior year minimum tax credit	432,169	
Total income tax:	1,092,909,361	
Total tax liability:	1,139,266,194	
Total Consumption Funds		5,020,848,680

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 13. *2006 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	138,420,499	
Adjusted gross income (less deficit)	7,982,660,690	
Salaries and wages:	5,578,112,649	5,578,112,649
Social Secuity & Medicare deductions (See Table A2)		-281,215,616
Taxable interest:	192,779,487	
Tax-exempt interest	69,505,527	
Ordinary dividends:	185,974,188	
Qualified dividends:	130,083,446	

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State income tax refunds:	22,670,071	22,670,071
Alimony received:	7,854,640	7,854,640
Business or profession net income:	316,776,424	316,776,424
Business or profession net loss:	47,456,970	-47,456,970
Net capital gain reported on Schedule D:	676,753,504	
Capital gain distributions reported on Form 1040:	8,577,690	
Net capital loss:	18,691,022	
Sales of property other than capital assets, net gain:	12,220,069	
Sales of property other than capital assets, net loss:	9,275,159	
Taxable Individual Retirement Arrangement:	125,057,748	125,057,748
Taxable pensions and annuities:	460,647,534	460,647,534
Rent and royalty net income:	77,337,722	77,337,722
Rent and royalty net loss:	55,133,308	-55,133,308
Partnership and S corporation net income:	468,113,804	
Partnership and S corporation net loss:	65,866,290	
Estate and trust net income:	17,404,639	17,404,639
Estate and trust net loss:	738,487	-738,487
Farm net income:	8,395,511	8,395,511
Farm net loss:	22,519,021	-22,519,021
Unemployment compensation:	26,777,624	26,777,624
Taxable Social Security benefits:	146,855,542	172,771,226
Total statutory adjustments:	110,079,073	
Educator expenses:	816,224	-816,224
Certain business expenses of reservists, etc. artists, and fee-basis government officials:	368,850	
Payments to an Individual Retirement:	12,768,170	-12,768,170
Student loan interest deduction:	6,187,425	-6,187,425
Tuition and fees deduction:	9,632,076	-9,632,076
Health savings account deduction:	845,431	-845,431
Medical savings account deduction:	29,908	-29,908
Moving expenses adjustment:	3,157,994	
Self-employment tax deduction:	22,451,883	
Self-employed health insurance deduction:	18,469,428	-18,469,428
Payments to a self-employed retirement (Keogh)	20,243,044	-20,243,044
Penalty on early withdrawal of savings:	433,716	
Alimony paid:	8,701,183	
Domestic production activities deduction:	3,277,003	
Other adjustments:	1,066,677	
Total deductions:	1,793,667,050	
Total standard deduction:	611,274,926	-611,274,926
Basic standard deduction:	594,041,953	
Additional standard deduction:	17,232,969	
Total itemized deductions (after limitation):	1,182,392,125	
Itemized deductions in excess of limitation:	33,562,088	
Medical and dental expenses deduction:	69,090,147	-69,090,147
Taxes paid deduction:	423,257,838	

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State and local income taxes	258,058,659	-258,058,659
Income taxes:	239,126,293	
General sales taxes:	18,932,366	
Interest paid deduction:	450,398,602	-450,398,602
Charitable contributions deduction:	173,018,464	-173,018,464
Taxable income:	5,553,096,928	
Alternative minimum tax:	19,252,710	
Income tax before credits:	1,083,780,725	
Total tax credits	57,450,072	
Child care credit:	3,519,410	
Credit for the elderly or disabled:	14,847	
Child tax credit:	31,836,114	
Education tax credits:	7,128,447	-7,128,447
Retirement savings contributions credit:	908,521	
Adoption credit:	334,705	
Residential energy credits:	1,023,719	
Foreign tax credit:	9,430,601	
General business credit:	1,114,077	
Prior year minimum tax credit:	1,012,865	
Self-employment tax:	44,895,363	-44,895,363
Total earned income credit (EIC):	45,364,048	
EIC used to offset income tax before credits:	808,517	
EIC used to offset other taxes:	4,645,878	
Excess EIC, refundable portion:	39,909,653	
Additional child tax credit:	16,354,979	
Credit for Federal telephone excise tax paid:	4,180,071	
Total income tax:	1,026,331,685	
Total tax liability:	1,071,236,902	
Total Consumption Funds		4,723,886,072

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 14. *2005 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	134,462,537	
Adjusted gross income (less deficit)	7,363,648,396	
Salaries and wages:	5,236,515,411	5,236,515,411
Social Security & Medicare deductions (See Table A2)		-272,605,087
Taxable interest:	140,024,777	
Tax-exempt interest	54,410,697	
Ordinary dividends:	153,736,864	
Qualified dividends:	111,592,163	

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State income tax refunds:	20,961,408	20,961,408
Alimony received:	7,943,058	7,943,058
Business or profession net income:	300,591,401	300,591,401
Business or profession net loss:	43,083,206	-43,083,206
Net capital gain reported on Schedule D:	599,383,730	
Capital gain distributions reported on Form 1040:	4,968,498	
Net capital loss:	22,075,818	
Sales of property other than capital assets, net gain:	11,421,195	
Sales of property other than capital assets, net loss:	7,747,570	
Taxable Individual Retirement Arrangement distributions:	111,709,278	111,709,278
Taxable pensions and annuities:	428,025,371	428,025,371
Rent and royalty net income:	74,425,992	74,425,992
Rent and royalty net loss:	48,353,595	-48,353,595
Partnership and S corporation net income:	424,863,423	
Partnership and S corporation net loss:	61,665,756	
Estate and trust net income:	15,159,317	15,159,317
Estate and trust net loss:	756,271	-756,271
Farm net income:	9,237,072	9,237,072
Farm net loss:	19,842,812	-19,842,812
Unemployment compensation:	27,995,669	27,995,669
Taxable Social Security benefits:	126,409,367	148,716,902
Total statutory adjustments:	104,151,627	
Educator expenses:	893,327	-893,327
Certain business expenses of reservists, performing artists,and fee-basis government officials:	290,381	
Payments to an Individual Retirement Arrangement:	12,207,511	-12,207,511
Student loan interest deduction:	5,075,930	-5,075,930
Tuition and fees deduction:	10,928,436	-10,928,436
Health savings account deduction:	488,782	-488,782
Medical savings account deduction:	40,398	-40,398
Moving expenses adjustment:	3,055,362	
Self-employment tax deduction:	21,368,314	
Self-employed health insurance deduction:	17,982,362	-17,982,362
Payments to a self-employed retirement (Keogh)	19,406,380	-19,406,380
Penalty on early withdrawal of savings:	267,260	
Alimony paid:	8,523,911	-8,523,911
Domestic production activities deduction:	2,123,938	
Other adjustments:	1,425,226	
Total deductions:	1,665,601,292	
Total standard deduction:	584,209,412	-584,209,412
Basic standard deduction:	567,428,479	
Additional standard deduction:	16,780,934	
Total itemized deductions (after limitation):	1,081,391,880	
Itemized deductions in excess of limitation:	42,549,206	
Medical and dental expenses deduction:	66,086,920	-66,086,920
Taxes paid deduction:	390,944,404	

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State and local income taxes:	237,687,278	-237,687,278
Income taxes:	220,687,451	
General sales taxes:	16,999,827	
Interest paid deduction:	390,375,165	-390,375,165
Charitable contributions deduction:	172,025,442	-172,025,442
Taxable income:	5,092,405,537	
Alternative minimum tax:	15,874,227	
Income tax before credits:	982,560,689	
Total tax credits	54,297,474	
Child care credit:	3,487,785	
Credit for the elderly or disabled:	13,787	
Child tax credit:	32,184,128	
Education tax credits:	6,194,770	-6,194,770
Retirement savings contributions credit:	962,976	
Adoption credit:	303,397	
Foreign tax credit:	8,340,820	
General business credit:	658,970	
Prior year minimum tax credit:	1,080,361	
Self-employment tax:	42,728,376	-42,728,376
Total earned income credit (EIC):	43,091,796	
EIC used to offset income tax before credits:	752,954	
EIC used to offset other taxes:	4,279,188	
Excess EIC, refundable portion:	38,059,653	
Additional child tax credit:	15,588,969	
Total income tax:	928,263,735	
Total tax liability:	970,951,374	
Total Consumption Funds		4,421,785,508

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 15. *2004 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	132,384,919	
Adjusted gross income (less deficit)	6,764,907,485	
Salaries and wages:	4,977,868,690	4,977,868,690
Social Security & Medicare deductions (See Table A2)		-267,152,818
Taxable interest:	111,561,113	
Tax-exempt interest	49,837,939	
Ordinary dividends:	135,353,804	
Qualified dividends:	102,348,349	
State income tax refunds:	21,484,401	21,484,401
Alimony received:	6,830,125	6,830,125

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Business or profession net income:	280,499,096	280,499,096
Business or profession net loss:	41,915,266	-41,915,266
Net capital gain reported on Schedule D:	440,133,546	
Capital gain distributions reported on Form 1040:	1,961,513	
Net capital loss:	25,454,976	
Sales of property other than capital assets, net gain:	9,311,122	
Sales of property other than capital assets, net loss:	6,665,222	
Taxable Individual Retirement Arrangement distributions:	102,003,408	102,003,408
Taxable pensions and annuities:	399,311,044	399,311,044
Rent and royalty net income:	67,955,009	67,955,009
Rent and royalty net loss:	42,898,818	-42,898,818
Partnership and S corporation net income:	355,465,300	
Partnership and S corporation net loss:	57,536,319	
Estate and trust net income:	13,051,086	13,051,086
Estate and trust net loss:	630,041	-630,041
Farm net income:	7,830,456	7,830,456
Farm net loss:	19,894,553	-19,894,553
Unemployment compensation:	32,740,408	32,740,408
Taxable Social Security benefits:	111,778,572	131,504,202
Total statutory adjustments:	94,479,216	
Educator expenses:	865,467	-865,467
Certain business expenses of reservists, performing artists,and fee-basis government officials:	243,988	
Payments to an Individual Retirement Arrangement:	10,239,186	-10,239,186
Student loan interest deduction:	4,438,098	-4,438,098
Tuition and fees deduction:	10,677,851	-10,677,851
Health savings account deduction:	180,186	-180,186
Medical savings account deduction:	63,086	-40,398
Moving expenses adjustment:	2,922,985	
Self-employment tax deduction:	20,148,573	
Self-employed health insurance deduction:	17,270,521	-17,982,362
Payments to a self-employed retirement (Keogh) plan:	17,982,632	-19,406,380
Penalty on early withdrawal of savings:	216,830	
Alimony paid:	8,131,749	-8,131,749
Other adjustments:	1,033,299	
Total deductions:	1,536,262,023	
Total standard deduction:	564,559,557	-564,559,557
Basic standard deduction:	548,505,579	
Additional standard deduction:	16,053,978	
Total itemized deductions (after limitation):	971,702,466	
Itemized deductions in excess of limitation:	34,892,605	
Medical and dental expenses deduction:	61,292,493	-61,292,493
Taxes paid deduction:	357,908,694	
State and local taxes	217,157,045	-217,157,045
Interest paid deduction:	345,937,522	-345,937,522
Charitable contributions deduction:	156,200,064	-156,200,064

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Taxable income:	4,649,039,200	
Alternative minimum tax:	12,062,016	
Income tax before credits:	881,808,770	
Total tax credits	51,389,855	
Child care credit:	3,380,224	
Credit for the elderly or disabled:	18,292	
Child tax credit:	32,426,392	
Education tax credits:	6,076,920	-6,076,920
Retirement savings contributions credit:	1,026,889	
General business credit:	507,705	
Prior year minimum tax credit:	842,683	
Self-employment tax:	40,289,242	-40,289,242
Total earned income credit (EIC):	40,616,952	
EIC used to offset income tax before credits:	772,269	
EIC used to offset other taxes:	4,045,464	
Excess EIC, refundable portion:	35,799,219	
Additional child tax credit:	14,523,694	
Total income tax:	830,419,041	
Total tax liability:	870,346,902	
Total Consumption Funds		4,205,111,909

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 16. *2003 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	130,571,319	
Adjusted gross income (less deficit)	6,212,974,067	
Salaries and wages:	4,696,501,144	4,696,501,144
Social Security & Medicare deductions (See Table A2)		-258,772,462
Taxable interest:	115,682,836	
Tax-exempt interest	51,795,259	
Dividends:	110,863,179	
Qualified dividends:	79,229,288	
State income tax refunds:	22,170,414	22,170,414
Alimony received:	6,095,856	6,095,856
Business or profession net income:	261,375,371	261,375,371
Business or profession net loss:	38,380,163	-38,380,163
Net capital gain reported on Schedule D:	288,296,474	
Capital gain distributions reported on Form 1040:	333,298	
Net capital loss:	28,921,930	

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Sales of property other than capital assets, net gain:	7,521,982	
Sales of property other than capital assets, net loss:	7,048,185	
Taxable Individual Retirement Arrangement	88,599,170	88,599,170
Taxable pensions and annuities:	378,632,948	378,632,948
Rent and royalty net income:	64,468,069	64,468,069
Rent and royalty net loss:	37,999,493	-37,999,493
Partnership and S Corporation net income:	301,171,011	
Partnership and S Corporation net loss:	56,220,101	
Estate and trust net income:	11,494,374	11,494,374
Estate and trust net loss:	562,851	-562,851
Farm net income:	7,560,081	7,560,081
Farm net loss:	19,513,364	-19,513,364
Unemployment compensation:	44,185,367	44,185,367
Taxable Social Security benefits:	99,080,506	116,565,301
Total statutory adjustments:	85,137,579	
Educator expenses:	813,913	-813,913
Payments to an Individual Retirement Arrangement:	10,166,576	
Student loan interest deduction:	4,470,823	-4,470,823
Tuition and fees deduction:	6,737,825	-6,737,825
Medical savings account deduction:	119,800	-119,800
Moving expenses adjustment:	2,483,169	
Self-employment tax deduction:	18,986,750	
Self-employed health insurance deduction:	15,569,662	-15,569,662
Payments to a self-employed retirement (Keogh)	16,899,066	-16,899,066
Penalty on early withdrawal of savings:	153,102	
Alimony paid:	7,303,956	-7,303,956
Total deductions:	1,439,376,664	
Basic standard deduction:	542,758,782	-542,758,782
Additional standard deduction:	16,064,490	-16,064,490
Total itemized deductions (after limitation):	880,553,392	
Itemized deductions in excess of limitation:	28,010,193	
Medical and dental expenses deduction:	55,003,108	-55,003,108
Taxes paid deduction:	-307,102,902	-307,102,902
Interest paid deduction:	331,988,244	-331,988,244
Charitable contributions deduction:	139,666,085	-139,666,085
Taxable income:	4,202,698,688	
Alternative minimum tax:	8,737,246	
Income tax before credits:	791,129,805	
Total tax credits	41,108,685	
Child care credit:	3,222,404	
Credit for the elderly or disabled:	20,600	
Child tax credit:	22,815,814	
Education tax credits:	5,900,877	
Retirement savings contributions credit:	1,053,786	
Adoption credit:	319,185	
Foreign tax credit:	5,014,266	
General business credit:	510,617	
Prior year minimum tax credit:	882,136	

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Self-employment tax:	37,965,977	-40,289,242
Total earned income credit (EIC):	39,124,190	
EIC used to offset income tax before credits:	936,451	
EIC used to offset other taxes:	3,745,552	
Excess EIC, refundable portion:	34,442,188	
Additional child tax credit:	9,131,488	
Total income tax:	750,024,250	
Total tax liability:	787,833,443	
Total Consumption Funds		3,857,631,864

($ amounts are in thousands)

*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 17. *2002 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	130,201,415	
Adjusted gross income (less deficit)	6,039,405,382	
Salaries and wages:	4,594,558,226	4,594,558,226
Social Security & Medicare deductions (See Table A2)		-256,568,263
Taxable interest:	139,294,544	
Tax-exempt interest	53,883,081	
Dividends:	98,758,800	
State income tax refunds:	22,653,944	22,653,944
Alimony received:	6,321,174	6,321,174
Business or profession net income:	248,994,633	248,994,633
Business or profession net loss:	34,527,253	-34,527,253
Net capital gain reported on Schedule D:	246,392,400	
Capital gain distributions reported on Form 1040:	439,135	
Net capital loss:	29,898,639	
Sales of property other than capital assets, gain:	6,702,014	
Sales of property other than capital assets, loss:	8,983,762	
Taxable Individual Retirement Arrangement	88,699,036	88,699,036
Taxable pensions and annuities:	363,178,764	363,178,764
Rent and royalty net income:	61,749,654	61,749,654
Rent and royalty net loss:	35,623,474	-35,623,474
Partnership and S corporation net income:	284,700,191	
Partnership and S corporation net loss:	56,029,034	
Estate and trust net income:	10,556,522	10,556,522

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Estate and trust net loss:	633,567	-633,567
Farm net income:	6,537,448	6,537,448
Farm net loss:	20,219,702	-20,219,702
Unemployment compensation:	43,411,772	44,185,367
Taxable Social Security benefits:	94,696,163	111,407,250
Total statutory adjustments:	75,291,939	
Educator expenses:	719,526	-719,526
Payments to an Individual Retirement	9,639,868	-9,639,868
Student loan interest deduction:	4,483,269	-4,483,269
Tuition and fees deduction:	6,224,780	-6,224,780
Medical savings account deduction:	128,367	-128,367
Moving expenses adjustment:	2,204,827	
Self-employment tax deduction:	17,985,927	
Self-employed health insurance deduction:	10,019,154	-10,019,154
Payments to a self-employed retirement (Keogh)	15,590,116	-15,590,116
Penalty on early withdrawal of savings:	195,551	
Alimony paid:	7,060,478	-7,060,478
Total deductions:	1,373,598,790	
Basic standard deduction:	479,281,798	-479,281,798
Additional standard deduction:	15,079,165	-15,079,165
Total itemized deductions (after limitation):	879,237,828	
Itemized deductions in excess of limitation:	26,240,256	
Medical and dental expenses deduction:	51,873,191	-51,873,191
Taxes paid deduction:	298,629,419	-298,629,419
Interest paid deduction:	343,191,909	-343,191,909
Charitable contributions deduction:	136,356,466	-136,356,466
Taxable income:	4,099,015,901	
Alternative minimum tax:	6,156,281	
Income tax before credits:	836,773,441	
Total tax credits	38,985,352	
Child care credit:	2,710,432	
Credit for the elderly or disabled:	21,317	
Child tax credit:	21,562,208	
Education tax credits:	4,933,542	
Retirement savings contributions credit:	1,071,537	
Adoption credit:	213,558	
Foreign tax credit:	5,216,722	
General business credit:	636,282	
Prior year minimum tax credit:	927,308	
Self-employment tax:	35,964,558	-35,964,558
Total earned income credit (EIC):	38,687,554	
EIC used to offset income tax before credits:	1,125,694	
EIC used to offset other taxes:	3,392,664	
Excess EIC, refundable portion:	34,169,197	
Additional child tax credit:	6,452,429	
Total income tax:	797,791,644	
Total tax liability:	834,265,347	
Total Consumption Funds		3,797,027,696

($ amounts are in thousands)

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*Note:*Data combined to prevent disclosure of information for specific taxpayers.
Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

Table A 18. *2001 - Individual Income Tax Return Data Converted to Consumption Funds*

Item	Base	
	Income	Consumption
Number of returns, total	130,456,253	
Adjusted gross income (less deficit)	6,181,889,543	
Salaries and wages:	4,611,431,462	4,611,431,462
Social Security & Medicare deductions (See Table A2)		-254,135,784
Taxable interest:	187,014,125	
Tax-exempt interest	56,091,639	
Dividends:	116,037,543	
State income tax refunds:	20,193,280	20,193,280
Alimony received:	6,558,816	6,558,816
Business or profession net income:	241,732,033	241,732,033
Business or profession net loss:	31,537,028	-31,537,028
Net capital gain reported on Schedule D:	325,081,819	
Capital gain distributions reported on Form 1040:	1,339,245	
Net capital loss:	22,916,974	
Sales of property other than capital assets, net gain:	6,818,134	
Sales of property other than capital assets, net loss:	8,209,308	
Taxable Individual Retirement Arrangement distributions:	95,550,919	95,550,919
Taxable pensions and annuities:	344,248,974	344,248,974
Rent and royalty net income:	58,783,275	58,783,275
Rent and royalty net loss:	27,197,544	-27,197,544
Partnership and S corporation net income:	271,311,548	
Partnership and S corporation net loss:	59,209,907	
Estate and trust net income:	10,885,736	10,885,736
Estate and trust net loss:	445,830	-445,830
Farm net income:	8,076,885	8,076,885
Farm net loss:	18,335,978	-18,335,978
Unemployment compensation:	27,186,681	27,186,681
Taxable Social Security benefits:	95,117,645	111,903,112
Total statutory adjustments:	58,639,871	
Payments to an Individual Retirement Arrangement:	7,509,629	-7,509,629
Student loan interest deduction:	-2,720,191	-2,720,191
Medical savings account deduction:	118,698	-118,698
Moving expenses adjustment:	2,137,051	
Self-employment tax deduction:	17,382,627	

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Self-employed health insurance deduction:	7,730,019	-7,730,019
Payments to a self-employed retirement (Keogh)	12,471,858	-12,471,858
Penalty on early withdrawal of savings:	199,332	
Alimony paid:	7,343,703	-7,343,703
Total deductions:	1,348,173,950	
Basic standard deduction:	469,491,595	-469,491,595
Additional standard deduction:	15,108,440	-15,108,440
Total itemized deductions (after limitation):	863,573,915	
Itemized deductions in excess of limitation:	30,431,661	
Medical and dental expenses deduction:	45,892,847	-45,892,847
Taxes paid deduction:	304,446,730	-304,446,730
Interest paid deduction:	340,166,542	-340,166,542
Charitable contributions deduction:	134,043,582	-134,043,582
Taxable income:	4,282,988,540	
Alternative minimum tax:	5,980,732	
Income tax before credits:	937,495,468	
Total tax credits	45,229,945	
Child care credit:	2,741,353	
Credit for the elderly or disabled:	31,051	
Child tax credit:	22,528,880	
Education tax credits:	5,205,349	
Adoption credit:	90,778	
Foreign tax credit:	5,882,794	
General business credit:	611,694	
Prior year minimum tax credit:	1,434,956	
Income tax after credits:	892,265,523	
Self-employment tax:	34,758,301	-34,758,301
Total earned income credit (EIC):	33,803,688	
EIC used to offset income tax before credits:	1,486,850	
EIC used to offset other taxes:	2,889,108	
Excess EIC, refundable portion:	29,427,729	
Additional child tax credit:	5,014,713	
Total income tax:	892,298,267	
Total tax liability:	928,262,706	
Total Consumption Funds		3,823,096,874

($ amounts are in thousands)

Note: Data combined to prevent disclosure of information for specific taxpayers.

Source: IRS, Statistics of Income Division, Individual Income Tax Returns, Preliminary Data, February, 2017.

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Table A 19. *Number of Individual Tax Returns Filed*

Year	Number of Returns
2015	150,565,917
2014	148,686,586
2013	147,735,800
2012	144,948,385
2011	145,579,529
2010	142,856,282
2009	140,532,115
2008	105,812,910
2007	143,030,461
2006	138,420,499
2005	134,462,538
2004	132,384,919
2003	130,571,319
2002	130,201,416
2001	130,546,254
Average	137,755,662

The total of 1040 returns filed each year are reported in the IRS (2017) SOI - Tax Stats - Individual Income Tax Returns retrieved from https://www.irs.gov/uac/soi-tax-stats-individual-income-tax-returns#prelim.

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Table A 20. *2015 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$2,183,074,421
SUBTRACT: IRS Operating Costs	$7,532,666
Total Tax	$2,175,541,755
Step 2-Consumption to tax	
Gross Domestic Product	$18,036,648,000
Shadow Economy % of GDP	5.90%
ADD: Shadow Economy	$1,064,162,232
SUBTRACT: Education	$168,837,000
SUBTRACT: Reading	$14,635,000
SUBTRACT: Healthcare	$557,632,000
SUBTRACT: Shelter	$1,379,703,000
SUBTRACT: Food at Home	$514,702,000
Total Consumption	$16,465,301,232
Step 3-Consumption Tax %	13.21%
Projected Total Consumption Tax	$2,175,066,293
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$6,707,866,686
Phase III - Consumption Tax	
Consumption (includes tax)	$6,707,866,686
Consumption (without tax)	$5,925,153,861
Consumption Tax	$782,712,825
Final Results for the Year	
Total Income Tax	$1,453,775,519
Less: Consumption Tax	$782,712,825

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Taxpayer savings (or deficit)	$671,062,694
Plus, Taxpayer Burden Savings	$27,726,219
Total Taxpayer Savings	$698,788,913

($ amounts are in thousands)

Table A 21. *2014 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,996,765,079
SUBTRACT: IRS Operating Costs	$7,552,951
Total Tax	$1,989,212,128
Step 2-Consumption to tax	
Gross Domestic Product	$17,393,103,000
Shadow Economy % of GDP	6.30%
ADD: Shadow Economy	$1,095,765,489
SUBTRACT: Education	$156,946,000
SUBTRACT: Reading	$13,086,000
SUBTRACT: Healthcare	$544,809,000
SUBTRACT: Shelter	$1,332,356,000
SUBTRACT: Food at Home	$503,339,000
Total Consumption	$15,938,332,489
Step 3-Consumption Tax %	12.48%
Projected Total Consumption Tax	$1,989,103,895
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$6,364,022,994
Phase III - Consumption Tax	
Consumption (includes tax)	$6,364,022,994
Consumption (without tax)	$5,657,915,180
Consumption Tax	$706,107,814

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Final Results for the Year	
Total Income Tax	$1,358,093,169
Less: Consumption Tax	$706,107,814
Taxpayer savings (or deficit)	$651,985,355
Plus, Taxpayer Burden Savings	$26,187,804
Total Taxpayer Savings	$678,173,159

($ amounts are in thousands)

Table A 22. *2013 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,876,348,448
SUBTRACT: IRS Operating Costs	$7,621,930
Total Tax	$1,868,726,518
Step 2-Consumption to tax	
Gross Domestic Product	$16,691,517,000
Shadow Economy % of GDP	6.60%
ADD: Shadow Economy	$1,101,640,122
SUBTRACT: Education	$142,959,000
SUBTRACT: Reading	$12,888,000
SUBTRACT: Healthcare	$456,305,000
SUBTRACT: Shelter	$1,266,815,000
SUBTRACT: Food at Home	$499,500,000
Total Consumption	$15,414,690,122
Step 3-Consumption Tax %	12.12%
Projected Total Consumption Tax	$1,868,260,443
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$6,051,218,835

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Phase III - Consumption Tax	
Consumption (includes tax)	$6,051,218,835
Consumption (without tax)	$5,397,091,362
Consumption Tax	$654,127,473
Final Results for the Year	
Total Income Tax	$1,234,098,995
Less: Consumption Tax	$654,127,473
Taxpayer savings (or deficit)	$579,971,522
Plus, Taxpayer Burden Savings	$27,940,534
Total Taxpayer Savings	$607,912,056

($ amounts are in thousands)

Table A 23. *2012 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,669,298,095
SUBTRACT: IRS Operating Costs	$7,974,721
Total Tax	$1,661,323,374
Step 2-Consumption to tax	
Gross Domestic Product	$16,155,000,000
Shadow Economy % of GDP	7.00%
ADD: Shadow Economy	$1,130,850,000
SUBTRACT: Education	$150,202,000
SUBTRACT: Reading	$13,609,000
SUBTRACT: Healthcare	$442,435,000
SUBTRACT: Shelter	$1,230,537,000
SUBTRACT: Food at Home	$486,910,000
Total Consumption	$14,962,157,000
Step 3-Consumption Tax %	11.10%
Projected Total Consumption Tax	$1,660,799,427

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Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$5,903,874,704
Phase III - Consumption Tax	
Consumption (includes tax)	$5,903,874,704
Consumption (without tax)	$5,314,018,636
Consumption Tax	$589,856,069
Final Results for the Year	
Total Income Tax	$1,191,569,818
Less: Consumption Tax	$589,856,069
Taxpayer savings (or deficit)	$601,713,749
Plus, Taxpayer Burden Savings	$26,870,231
Total Taxpayer Savings	$628,583,980

($ amounts are in thousands)

Table A 24. *2011 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,589,030,349
SUBTRACT: IRS Operating Costs	$8,132,099
Total Tax	$1,580,898,250
Step 2-Consumption to tax	
Gross Domestic Product	$15,517,926,000
Shadow Economy % of GDP	7.00%
ADD: Shadow Economy	$1,086,254,820
SUBTRACT: Education	$128,467,000
SUBTRACT: Reading	$14,113,000
SUBTRACT: Healthcare	$405,048,000
SUBTRACT: Shelter	$1,201,512,000
SUBTRACT: Food at Home	$467,770,000

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Total Consumption	$14,387,270,820
Step 3-Consumption Tax %	10.99%
Projected Total Consumption Tax	$1,581,161,063
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$5,617,090,862
Phase III - Consumption Tax	
Consumption (includes tax)	$5,617,090,862
Consumption (without tax)	$5,060,898,154
Consumption Tax	$556,192,707
Final Results for the Year	
Total Income Tax	$1,037,484,722
Less: Consumption Tax	$556,192,707
Taxpayer savings (or deficit)	$481,292,015
Plus, Taxpayer Burden Savings	$30,158,111
Total Taxpayer Savings	$511,450,126

($ amounts are in thousands)

Table A 25. *2010 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,453,926,748
SUBTRACT: IRS Operating Costs	$7,659,031
Total Tax	$1,446,267,717
Step 2-Consumption to tax	
Gross Domestic Product	$14,964,372,000
Shadow Economy % of GDP	7.20%
ADD: Shadow Economy	$1,077,434,784

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SUBTRACT: Education	$130,111,000
SUBTRACT: Reading	$12,066,000
SUBTRACT: Healthcare	$382,285,000
SUBTRACT: Shelter	$1,188,279,000
SUBTRACT: Food at Home	$438,143,000
Total Consumption	$13,890,922,784
Step 3-Consumption Tax %	10.41%
Projected Total Consumption Tax	$1,446,045,062
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$5,312,537,347
Phase III - Consumption Tax	
Consumption (includes tax)	$5,312,537,347
Consumption (without tax)	$4,811,645,093
Consumption Tax	$500,892,254
Final Results for the Year	
Total Income Tax	$944,505,236
Less: Consumption Tax	$500,892,254
Taxpayer savings (or deficit)	$443,612,982
Plus, Taxpayer Burden Savings	$31,549,135
Total Taxpayer Savings	$475,162,117

($ amounts are in thousands)

Table A 26. *2009 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,415,864,347
SUBTRACT: IRS Operating Costs	$7,068,406
Total Tax	$1,408,795,941

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Step 2-Consumption to tax	
Gross Domestic Product	$14,418,739,000
Shadow Economy % of GDP	7.60%
ADD: Shadow Economy	$1,095,824,164
SUBTRACT: Education	$129,067,000
SUBTRACT: Reading	$13,244,000
SUBTRACT: Healthcare	$377,780,000
SUBTRACT: Shelter	$1,217,506,000
SUBTRACT: Food at Home	$453,596,000
Total Consumption	$13,323,370,164
Step 3-Consumption Tax %	10.57%
Projected Total Consumption Tax	$1,408,280,226
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$4,981,268,104
Phase III - Consumption Tax	
Consumption (includes tax)	$4,981,268,104
Consumption (without tax)	$4,507,934,936
Consumption Tax	$473,333,168
Final Results for the Year	
Total Income Tax	$1,037,484,722
Less: Consumption Tax	$473,333,168
Taxpayer savings (or deficit)	$564,151,554
Plus, Taxpayer Burden Savings	$28,915,707
Total Taxpayer Savings	$593,067,261

($ amounts are in thousands)

Table A 27. *2008 - Phase I, II, & III Computations*

	Figures

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Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,780,306,008
SUBTRACT: IRS Operating Costs	$7,333,354
Total Tax	$1,772,972,654
Step 2-Consumption to tax	
Gross Domestic Product	$14,718,582,000
Shadow Economy % of GDP	7.00%
ADD: Shadow Economy	$1,030,300,740
SUBTRACT: Education	$126,275,000
SUBTRACT: Reading	$14,030,000
SUBTRACT: Healthcare	$359,365,000
SUBTRACT: Shelter	$1,229,818,000
SUBTRACT: Food at Home	$451,454,000
Total Consumption	$13,567,940,740
Step 3-Consumption Tax %	13.07%
Projected Total Consumption Tax	$1,773,329,855
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$5,138,734,154
Phase III - Consumption Tax	
Consumption (includes tax)	$5,138,734,154
Consumption (without tax)	$4,544,737,025
Consumption Tax	$593,997,129
Final Results for the Year	
Total Income Tax	$1,025,509,017
Less: Consumption Tax	$593,997,129
Taxpayer savings (or deficit)	$431,511,888
Plus, Taxpayer Burden Savings	$23,746,376
Total Taxpayer Savings	$455,258,264

($ amounts are in thousands)

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Table A 28. *2007 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,761,777,263
SUBTRACT: IRS Operating Costs	$7,046,183
Total Tax	$1,754,731,080
Step 2-Consumption to tax	
Gross Domestic Product	$14,477,635,000
Shadow Economy % of GDP	7.20%
ADD: Shadow Economy	$1,042,389,720
SUBTRACT: Education	$113,594,000
SUBTRACT: Reading	$14,143,000
SUBTRACT: Healthcare	$342,815,000
SUBTRACT: Shelter	$1,204,440,000
SUBTRACT: Food at Home	$416,229,000
Total Consumption	$13,428,803,720
Step 3-Consumption Tax %	13.07%
Projected Total Consumption Tax	$1,755,144,646
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$5,020,848,680
Phase III - Consumption Tax	
Consumption (includes tax)	$50,204,848,680
Consumption (without tax)	$4,440,478,182
Consumption Tax	$580,370,498
Final Results for the Year	
Total Income Tax	$1,092,909,361
Less: Consumption Tax	$580,370,498

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Taxpayer savings (or deficit)	$512,538,863
Plus, Taxpayer Burden Savings	$27,018,514
Total Taxpayer Savings	$539,557,377

($ amounts are in thousands)

Table A 29. *2006 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,617,183,944
SUBTRACT: IRS Operating Costs	$6,809,758
Total Tax	$1,610,374,186
Step 2-Consumption to tax	
Gross Domestic Product	$13,855,888,000
Shadow Economy % of GDP	7.50%
ADD: Shadow Economy	$1,039,191,600
SUBTRACT: Education	$105,495,000
SUBTRACT: Reading	$13,904,000
SUBTRACT: Healthcare	$328,727,000
SUBTRACT: Shelter	$1,149,606,000
SUBTRACT: Food at Home	$405,396,000
Total Consumption	$12,891,951,600
Step 3-Consumption Tax %	12.49%
Projected Total Consumption Tax	$1,610,204,755
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$4,723,886,072
Phase III - Consumption Tax	
Consumption (includes tax)	$4,723,886,072
Consumption (without tax)	$4,199,383,120
Consumption Tax	$524,502,952

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Final Results for the Year	
Total Income Tax	$1,026,331,685
Less: Consumption Tax	$524,502,952
Taxpayer savings (or deficit)	$501,828,733
Plus, Taxpayer Burden Savings	$26,419,352
Total Taxpayer Savings	$528,248,085

($ amounts are in thousands)

Table A 30. *2005 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,414,595,831
SUBTRACT: IRS Operating Costs	$6,482,775
Total Tax	$1,408,113,056
Step 2-Consumption to tax	
Gross Domestic Product	$13,093,726,000
Shadow Economy % of GDP	8.20%
ADD: Shadow Economy	$1,073,685,532
SUBTRACT: Education	$110,325,000
SUBTRACT: Reading	$14,841,000
SUBTRACT: Healthcare	$312,649,000
SUBTRACT: Shelter	$1,033,291,000
SUBTRACT: Food at Home	$386,483,000
Total Consumption	$12,309,822,532
Step 3-Consumption Tax %	11.44%
Projected Total Consumption Tax	$1,408,243,698
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$4,421,785,508

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Phase III - Consumption Tax	
Consumption (includes tax)	$4,421,785,508
Consumption (without tax)	$3,967,862,086
Consumption Tax	$453,923,423
Final Results for the Year	
Total Income Tax	$928,263,735
Less: Consumption Tax	$453,923,423
Taxpayer savings (or deficit)	$474,340,312
Plus, Taxpayer Burden Savings	$22,050,044
Total Taxpayer Savings	$496,390,356

($ amounts are in thousands)

Table A 31. *2004 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,220,868,119
SUBTRACT: IRS Operating Costs	$5,901,014
Total Tax	$1,214,767,105
Step 2-Consumption to tax	
Gross Domestic Product	$12,274,928,000
Shadow Economy % of GDP	8.40%
ADD: Shadow Economy	$1,031,093,952
SUBTRACT: Education	$105,264,000
SUBTRACT: Reading	$15,165,000
SUBTRACT: Healthcare	$299,289,000
SUBTRACT: Shelter	$930,071,000
SUBTRACT: Food at Home	$388,283,000
Total Consumption	$11,567,949,952
Step 3-Consumption Tax %	10.50%
Projected Total Consumption Tax	$1,214,634,745

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Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$4,205,111,909
Phase III - Consumption Tax	
Consumption (includes tax)	$4,205,111,909
Consumption (without tax)	$3,805,531,140
Consumption Tax	$399,580,770
Final Results for the Year	
Total Income Tax	$830,419,041
Less: Consumption Tax	$399,580,770
Taxpayer savings (or deficit)	$430,838,271
Plus, Taxpayer Burden Savings	$21,774,943
Total Taxpayer Savings	$452,613,214

($ amounts are in thousands)

Table A 32. *2003 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,181,355,176
SUBTRACT: IRS Operating Costs	$5,687,048
Total Tax	$1,175,668,128
Step 2-Consumption to tax	
Gross Domestic Product	$11,510,670,000
Shadow Economy % of GDP	8.50%
ADD: Shadow Economy	$978,406,950
SUBTRACT: Education	$90,347,000
SUBTRACT: Reading	$14,681,000
SUBTRACT: Healthcare	$278,705,000
SUBTRACT: Shelter	$909,862,000
SUBTRACT: Food at Home	$360,060,000

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Total Consumption	$10,835,421,950
Step 3-Consumption Tax %	10.85%
Projected Total Consumption Tax	$1,175,643,282
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$3,857,631,864
Phase III - Consumption Tax	
Consumption (includes tax)	$3,857,631,864
Consumption (without tax)	$3,480,046,788
Consumption Tax	$377,585,076
Final Results for the Year	
Total Income Tax	$750,024,250
Less: Consumption Tax	$377,585,076
Taxpayer savings (or deficit)	$372,439,174
Plus, Taxpayer Burden Savings	$21,648,090
Total Taxpayer Savings	$394,087,264

($ amounts are in thousands)

Table A 33. *2002 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,249,171,681
SUBTRACT: IRS Operating Costs	$5,614,241
Total Tax	$1,243,557,440
Step 2-Consumption to tax	
Gross Domestic Product	$10,977,514,000
Shadow Economy % of GDP	8.50%
ADD: Shadow Economy	$933,088,690

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SUBTRACT: Education	$84,276,000
SUBTRACT: Reading	$15,535,000
SUBTRACT: Healthcare	$263,421,000
SUBTRACT: Shelter	$877,736,000
SUBTRACT: Food at Home	$345,917,000
Total Consumption	$10,323,717,690
Step 3-Consumption Tax %	12.05%
Projected Total Consumption Tax	$1,244,007,982
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$3,797,027,696
Phase III - Consumption Tax	
Consumption (includes tax)	$3,797,027,696
Consumption (without tax)	$3,388,690,492
Consumption Tax	$408,337,204
Final Results for the Year	
Total Income Tax	$797,791,644
Less: Consumption Tax	$408,337,204
Taxpayer savings (or deficit)	$389,454,440
Plus, Taxpayer Burden Savings	$21,675,397
Total Taxpayer Savings	$411,129,837

($ amounts are in thousands)

Table A 34. *2001 - Phase I, II, & III Computations*

	Figures
Phase 1 - Revenue Neutral Tax Rate %	
Step 1-Total Tax	
Income Tax Revenue Collected	$1,364,941,523
SUBTRACT: IRS Operating Costs	$5,624,024
Total Tax	$1,359,317,499

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Step 2-Consumption to tax	
Gross Domestic Product	$10,621,824,000
Shadow Economy % of GDP	8.50%
ADD: Shadow Economy	$902,855,040
SUBTRACT: Education	$71,461,000
SUBTRACT: Reading	$15,558,000
SUBTRACT: Healthcare	$240,712,000
SUBTRACT: Shelter	$838,752,000
SUBTRACT: Food at Home	$340,046,000
Total Consumption	$10,018,150,040
Step 3-Consumption Tax %	13.57%
Projected Total Consumption Tax	$1,359,462,960
Phase II - Tax Return Conversion	
Total Consumption Funds (See Tables A4-A18)	$3,823,096,874
Phase III - Consumption Tax	
Consumption (includes tax)	$3,823,096,874
Consumption (without tax)	$3,366,291,163
Consumption Tax	$456,805,711
Final Results for the Year	
Total Income Tax	$892,298,267
Less: Consumption Tax	$456,805,711
Taxpayer savings (or deficit)	$435,492,556
Plus, Taxpayer Burden Savings	$21,666,414
Total Taxpayer Savings	$457,158,970

($ amounts are in thousands)

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