Accounting & Taxation
Vol. 11, No. 1, 2019, pp. 47-57
ISSN: 1944-592X (print)
ISSN: 2157-0175 (online)

IBFR
www.theIBFR.com

AN HISTORY OF US TAX CODE COMPLEXITY WITHIN COMPUTER-BASED RETURN PREPARATION

Robert J. Walsh, University of Dallas

ABSTRACT

The current income tax system in the United States is extraordinarily complex. Efforts like the tax law changes in 2017 have done little to lessen the overall compliance burden. There are a variety of reasons for this – some intentional and some accidental. This paper examines one of the accidental reasons - the history of growing computer technology over the past 50 years and its effects on increasing tax complexity in the US. A "black box" phenomenon of tax preparation that exists today has grown from an inconspicuous start by merely desiring arithmetic on the tax forms to be accurate. Decades later, it is easy to conclude that absent this enormous growth in computer technology, US lawmakers could not possibly have passed and continue to pass laws into such a convoluted tax system. Whether it is optimal for a tax system to be so "disguised" from the taxpayer is debatable, particularly with other parties, like the Internal Revenue Service and tax preparation companies like Intuit having so much now invested in this electronic process.

JEL: M41, M42, M48

KEYWORDS: Computer, Tax Preparation, Tax Complexity

INTRODUCTION

There is no doubt the US tax code is incredibly complicated. There are numerous causes for this - from the complexity of business operations in the 21st century to tax incentives and disincentives created throughout the Code since the early 1920s. This paper examines another possibility – the advances in computer technology over the past 50 years has limited the amount of taxpayer "pushback" from layers of new tax laws simply because the taxpayer has no obligation to truly understand the tax system. In addition, the increase in tax complexity and computerized tax preparation seemingly has been particularly acute in the past 30 years. While electronic filing did not exist in 1984, in 2016 more than 90% of all individual Form 1040 are electronically filed (IRS, 2016). Similarly in 1984, the CCH Federal Tax Reporter contained 26,300 pages of tax law. By 2014, the US tax laws and regulations in the same CCH Federal Tax Reporter totaled 74,608 pages (Burton and Karlinsky, 2016).

The difference in tax preparation for individuals in the United States over the past half century is dramatic. In the early 1960s, nearly all tax returns (Form 1040 and its schedules) were prepared "by hand," using a slide rule for complex calculations. Some tax preparers, in an effort to make their work look "more professional," had their tax returns typed by a secretary and usually copied using carbon paper. Today, most returns are electronically prepared and filed and paper copies can be printed at home or merely saved on a computer's hard drive or cloud. This ability to make tax preparation progressively easier through the use of advances in computer technology has been offset by lawmakers' awareness of the easy of tax preparations and their desire to a) "hide" the true tax rate paid by many taxpayers and b) encourage or discourage more and more narrowly defined activities.

Increasing the computational complexity of tax returns – creating a "black box" for many taxpayers – is not generally consider good tax policy, though some stakeholders might benefit. First, it undermines the legitimacy of the system, allowing uncertainty over whether the tax system has horizontal and vertical equity. Second, in both the cases of phase outs and the alternative minimum tax (AMT), the taxpayer could be unaware of their current marginal tax rate, which means they cannot make proper working or investment decisions. On the other hand, while not optimal, concealing the tax liability or tax rate might reduce resistance to the tax. While hiding a tax liability is general considered not good, some researchers have examined both the negative and positive effects of the black box tax preparation phenomenon, as well as those entities (IRS, some lawmakers, tax preparation software companies) that benefit from this current situation. In this paper, some of those will be reviewed. This paper also moves a step further and asks the question – "Was the resulting black box intentional?"- by examining some of the history of electronic tax preparation. The short answer is no – at least not from its inception in the early-1960s to the mid-1980s. The IRS did not become interested tax preparers' electronic version of the Form 1040 until sometime in the 1980s, over two decades after its beginning. The IRS interest did not stem from a desire to hide a true tax rate either – it was merely to transfer the information electronically to its own computers and eliminate the necessity of "keying-in" information from the paper version of Form 1040. So began the campaign to encourage tax preparers to begin the "ramp-up" of electronic filing. Today, more than 90% of all tax returns in the US are electronically filed (IRS, 2016).

This paper is outlined as follows. Section two reviews the literature in this area that address the some of the positive and negative consequences of not understanding how a taxpayer liability was calculated. Section three demonstrates the increases in tax complexity, particularly in the past 20 years, which coincidences with the dramatic increases in the ability of computer technology to be widely available and easy to use for everyone. Section four discusses the history of computer prepared returns, with each decade marked by wider spread usage, including the availability of high speed printers to reproduce IRS forms, first at the accounting firm level, then, within the past 20 years at the individual level, and then nearly universal electronic filing. Section four also addresses the Internal Revenue Service's push to see all returns electronically filed and how this might be the first "organized" push towards the "black box" of tax preparation. Section five offers a path forward which also considers what other countries have done to reduce the tax compliance burden and the pushback that tax preparation software companies are now engaged in politically. Section six concludes.

LITERATURE REVIEW

There are both advantages and disadvantages to society and to lawmakers of the "black box" of tax preparation created by computer technology. It could be argued that hiding a true tax liability from a taxpayer's knowledge could be both a help and a hindrance to lawmakers. However, it does not appear, when reviewing the history of computer technology in tax preparation, that helping or hindering was ever considered in encouraging its initial growth – it was merely an unintended consequence. An advantage to lawmakers is an inability by the taxpayer to realize their true tax liability (or marginal tax rate) on the next dollar earned until long after the tax year has been completed (if ever). This idea of "confusing and confounding" taxpayers is certainly not a new idea, and what that did not begin with the advancing computer technology. As an example, in the past lawmakers at the state level have enthusiastically endorsed the idea of tax exportation. For instance, consider impose a state sales or use tax on rental cars. Most individuals are not from that state, so the money is consider collected from individuals who are not able to vote against lawmakers who voted for the tax. Eventually, however, people from their state who rent a car in another state face the tax as well, but likely will not connect payment of a tax to another state with their own state's lawmakers. Taxpayers are also faced with a number of different taxes – federal income tax, state income tax, state sales tax, property taxes. It has long been assumed that taxing individuals at a variety of different levels confused them – to the point they do not truly understand the dollar or percentage amount of tax they

are paying, which again is an advantage to the lawmakers created and imposing these taxes since their culpability may be reduced.

The lack of transparency for federal individual income tax helps lawmakers in a number of other ways, besides reducing constituent pushback. Disagreements about whether their money has been spent, including redistribution of wealth from rich to poor, are highly debatable and controversial topics (Fennell and Fennell, 2003). This idea of "fiscal illusion" – not being able to tell your true tax rate – either average or marginal – is well documented in the literature and it considered a detriment to tax compliance. Afonso (2014) outlines some of the reasons – it is easier for taxpayers to accept a tax if they think it provides them with more benefit than a murky and indeterminable cost. It is also difficult for taxpayer to plan to work more (or less) if they do not understand their true tax rate (or true cost of working) until after the work is completed (which is after the end of the tax year but before the tax return is completed and submitted).

The "black box" phenomenon of tax preparation also makes it difficult to impose regulations on the creators of the software, an advantage to the software makes but a negative outcome for the taxpaying public. Soled and Thomas (2017) point out that tax preparation software, like tax preparers, are a vital intermediary between the IRS and the taxpayer. Despite this connection, the IRS does not "test" the computerized software of these vendors every year, including the "audit defense" system, which "estimates" the likelihood of an audit. Furthermore, as discussed by Gunter (2016), many of these programs concentrate on maximizing deductible expenses, but do not advocate any maximization of revenue (not surprisingly). The result is a fundamentally biased system tilted towards underreporting taxable income.

A disadvantage to the "Black Box Phenomenon" is the increase in penalties from non-compliance with tax laws which the taxpayer may only be minimally at fault. This "Turbo Tax Defense" strategy has been brought on most ignobly by the former Secretary of the US Department of Treasury, Timothy Geithner. Secretary Geithner, during his confirmation process in 2009, was discovered to have not reported certain taxable income from the early part of the decade. His defense was "Turbo Tax made me do it!" Despite the statute of limitations already closing on the prior returns, Secretary Geithner paid the back taxes (McAuliff, 2009). The problem of the "Turbo Tax Defense" is certainly not limited to just the former Secretary of the US Treasury though. Mock and Shurtz (2014) wrote extensively on the logistics and strategies for using this defense. Generally, the defense cannot be used to reduce the tax liability permanently and erroneously, but can be used to waive penalties and interest that would have been owed to the IRS. These fines include negligence penalties since the taxpayer, while using a software program, made a reasonable attempt at computing his correct tax. Simply put, it was not the taxpayer's fault the program "did not ask the correct questions" (Brink and Lee, 2015).

A non-tax law related issue, but still one very important within the computer tax preparation area, is the potential to mislead consumers about the actual cost to them of the preparation and filing. Tax preparation software is sometimes offered "for free," including the IRS "free-filing" program. Not stated is the cost of a state tax return, or the "upload" of other services, such as forms required for reporting more complex financial transactions, or "audit protection." These marketing practices certainly increases the demand for the software, but leave taxpayers confused and potentially less connected to how their tax liability was computed, not to mention how the fee for the tax software was computed either (Ventry, 2010). This overall disadvantage to society is that society does not realize their portion of the cost of government, and hence any "civic virtue," much like voting in an election, is lost. Mehrotra (2015) argues that researchers of taxation and development have long recognized the critical role that an effective tax system plays into a democracy. Zelenak (2007) points this out by arguing that "the income tax requirements can have the "civic virtue" of making taxpayers conscious of the distribution of the costs of government, but that that benefit is lost if taxpayers perceive the income tax:

> *"as a black box, producing income tax filing requirement can have the "civic virtue" of making taxpayers conscious of the distribution of the costs of government, but that that benefit is lost if taxpayers perceive the income tax "as a black box, producing income tax liabilities through the use of incomprehensible rules that taxpayers have no reason to assume are fair…" (p.4)*

Goolsbee (2003) also addresses this point and the idea of a disconnect between taxpayers and the true amount of taxes (or tax rate) they are paying by also pointing out that any economics incentives or disincentives are lost in a "black box" situation:

> *"If people do not understand the incentives embodied in the system, they will not respond to them. On the one hand, this makes the system efficient and nondistortionary… On the other hand, the ability to influence behavior was exactly the policymakers' point in creating the complex tax system to begin with. In the long run that purpose would be lost."*

While fiscal illusion has been well documented in the literature, and other authors, like Zelenak and Goolsbee have made references to the "TurboTax" phenomenon, relatively little insight has been provided on how the computer tax preparation business began, or whether or when anyone realized that such a strong disconnection would be created between the taxpayer and his liability computation. In the next section, a brief history is discussed, one which shows that the illusion/disconnection phenomenon was merely an unintended consequence.

Growth of Tax Complexity

Since the passage of the 16th Amendment to the US Constitution in 1913 and the enactment of income tax laws in the US that same year, there have been complaints about the difficulties in understanding the Code. In 1914, with only 40 pages of tax law, there were already calls were already made for simplification (Rearick, 1914) (p. 25):

> *"It will hardly be denied that the federal income tax needs simplification. Its complexity is its distinguishing characteristic. To begin with the language in which the Act is couched is involved and its rhetoric bewildering…. In addition, it leaves a great deal to the imagination. The definition of income is in the most general terms."*

By 1916, the Bureau of Internal Revenue was already asking for a total overhaul of the US tax system, beginning with the replacement of net income with the seemingly easier to compute gross income (Commissioner of Internal Revenue, 1916) (p. 7):

> *"The Bureau has heretofore recommended the shifting of the requirements of individual returns on a net income basis to that of gross income. … on the present basis of net income….there exists the anomalous condition that taxpayers are allowed in some degree to pass upon their own liability for a tax based on their own interpretation of the laws…"*

For the 80 years after the tax code was first passed in 1913 – through 1993 - there were about 400 forms. In the next ten years, from 1993 through 2002, another 120 forms were created by the IRS – a 30% increase in number. A report to Congress (Taxpayer Advocate Report, 2010) called tax complexity the number one problem facing taxpayers:

> *In the last 10 years there have been approximately 4,428 tax code changes including an estimated 579 changes in 2010 alone.*
> *As of an analysis in early 2010, the tax code contained 3.8 million words, which is almost triple the 1.4 million words the tax code contained in 2001.*

Simultaneously the number of returns electronically filed went from nearly zero in the late 1980s to more than 90% in 2016 (IRS, 2016). What caused all of these layers and layers of complexity in the tax system? And, more importantly, why do taxpayers (who are also mostly eligible voters) not complain more? The first question is easy to answer – for example, lawmakers creating a) more economic incentives or disincentives for certain behavior, b) clearer and more narrowly defined rules and regulations, and c) the growth of businesses across international borders. The answer to the second question – why do not voters complain more - has a multi-faceted reply, and a part of the answer lies in the ease with which a tax return can be prepared today relative to the 1980s, and certainly to the 1960s. A significant part of the complexity problem is the use of phase outs – an attempt by lawmakers to incentivize the tax system and also "disguise" the true tax liability. Phase outs mean that certain items of exclusions of income or deductions (or credits) will be less and less available to a taxpayer as their income rises. This means that not only does the taxpayer pay a marginal rate on the last dollar earned, but also "gains" more taxable income that the actually dollar he/she made, thus resulting in even more tax. The end result is a marginal tax rate even higher than what was previously thought. Take just one example of a phase out for a taxpayer with children. In the 2017 tax year, every child that a taxpayer supports entitles the taxpayer to an exemption amount and a subsequent deduction on the tax return (which probably will result in a reduction in tax owed).

He/she may also be allowed a credit for the child's care while the taxpayer is at work. In addition, the same child might also entitle the taxpayer to a child credit – an additional $1000 in reduction in the overall tax liability – assuming the taxpayer is below a certain level of adjusted gross income. To compound complexity even further, in 2018, the law changes, so that the taxpayer is no longer allowed a deduction, but can be given a tax credit (up to $2000 per child) – but only if the taxpayers income is below a new level. Finally, if the taxpayers' adjusted gross income is low, (he/she/they) are entitled to another tax credit called the earned income credit – which may actually result in a negative tax rate – or an amount of "refund" that was never even paid to the IRS.As income rises, the earned income is phased out, then the child care credit then the child credit is phased out. Finally, the child's exemption amount is phased out. The ability of the taxpayer (or even a taxpayer's preparer) to remember each phase out is problematic, not to mention the switching of entire new sections of the tax code, particularly since nearly every phase out upper and lower limits change each year when adjusted for inflation.

Growth of Computer Based Tax Preparation

Examining the history of tax preparation in the US is an examination of the "rule of unintended consequences." What seemed like a rather innocuous attempt in the 1960s to make the return arithmetically accurate soon became an idea to make the tax return process quicker (and therefore more profitable) by the 1970s. The decade of the 1980s saw the addition of the Internal Revenue Service's incentives to receive a completed tax return in already in computerized data format, thereby eliminated the need for government workers to input the information from a tax return into a central database. By the start of the 21st century, computer memory power and the internet eventually allowed nearly every individual tax return to be done online and sent to the IRS electronically.

Examining the whole evolution of computer tax preparation from the 1960s to today indicates that nearly the entire journey was one of "stops and starts." The intentions seemed rather innocuous, at least until the IRS started its involvement in the process around the mid-1980s. Up until that time, CPAs partnered with computer programmers and system hardware designers in trying to figure out how to make the tax return prep business easier for tax preparers, as well as eliminating errors and putting out a more professional looking tax return to the client. The following is a brief history of that interaction. Today a tax return can be prepared using a tax preparation software, available for as little as $10 (or even free for the very simple returns). From 50 years ago, this is an astonishing technological achievement. For much of those 50 years however, usually only CPA firms or tax preparation franchises (HR Block, Jackson Hewitt, etc.) used the computer at all to complete tax returns. At first, it was simply to eliminate mathematical errors by the

preparer (particularly on complex returns with multiple forms) and to make the return look more "professional." Another advantage was also quickly discovered by tax professionals – a "pro forma" data collection sheet could also be given to the client as a "reminder" of the data that was needed for the current year's return, based on what was submitted in the prior year (Rea, 1969).

Before the 1960s, almost every tax return was prepared "by hand" – each line filled out by taxpayers or their preparers. If the tax preparer wanted a more "professional appearance," the dollar amounts and other personal information could be typed into a Form 1040 and the appropriate schedules. In 1961, the Internal Revenue Service first began entering taxpayer information, received by employers and banks, into electronic data processing machines. This gave the ability for the IRS then to "cross-check" the reported amounts of the taxpayer with relative ease (rather than done "by hand" and through a physical audit) (Smith, 1961). The technology to do this was quickly transfer over to a company named Computax, which became the first leading computer preparation company by 1964. In that year, more than 100,000 returns were processed by using Computax. Not everything worked as planned, however. There were complaints that the systems sometime did not prepare all of the forms that were required, and the "turnaround" time was less than optimal, particularly as the calendar neared the April 15th deadline (Stern, 1965).

The "system" of tax preparation would be as follows. Tax preparers would hand write onto input sheets for each items of revenue or expense on the 1040. The input sheets would then be transported to a "service bureau" which would type the data into a mainframe, which would compute the tax return and print out a finished 1040, usually within a day or two. It is interesting to note how slowly this process began – usually limited by available computer technology of memory space and speed of computation, and later on by printer speed. Many small firms provided the technology (which was usually not the accounting firms themselves). They either quickly became larger (or failed), or merger with other firms between the mid-1960s and the early 1980s. The system was plagued over more than a decades by problems including limited number of state returns that could be processed, and days (or weeks) lag in "turn-around" time.

In the decade of the 1970s the computer tax preparation business grew but not without problems – and was certainly limited to very few taxpayers. Pacter (1971) compares the services offered by 14 different service bureaus - less than 1,000,000 returns in total were actually processed. Six pages of charts by Pacter include the price of each service, the level of services provided and the returns and schedules each company can provide. Some companies could provide all or most forms for the IRS, other companies could also provide forms for certain states (but not all). By 1973, Unitax was advertising that it could process US federal returns and state returns in six states Unitax California, Oregon, Arizona, Illinois, Indiana and Michigan. That also highlighted a problem that took years to overcome – not every service bureau was able to do state tax returns, and in fact, most could only do tax returns for five to nine states. Consequently, clients who worked in many states would continue to need their tax preparers to complete some state returns manually (Anonymous 1, 1973). These "stops-and-starts" of computer technology continued throughout the 1970s. By the mid-1970, Dynatax reported that it had located its operations to 20 different states, according to *The Journal of Accountancy* (Anonymous 2, 1974).

By 1975, there were three ways tax returns could be done according to Kanter (1975). First, the batch system where the accountant prepares the returns on input sheets and processed by a tax service bureau and mailed by to the accountant. Second, the accountant could buy or lease a terminal and input the tax information in office, and then returns could be printed by the service bureau and mailed back to the accountant. While many firms were now offering the services for form 1040 and schedules, only a few companies could do the necessary forms for corporations, partnerships and trusts. By the end of the decade of the 1970s, nearly all large CPA firms, as well as many smaller ones, prepared at least some of their returns using the input system. In 1979, 75 percent of firms surveyed indicated they use a service bureau. The industry consolidation had gone further with three or four tax preparation firms dominating the industry and moving closer and closer to being able to provide service in all 50 states. (Frotman, 1979)

Service bureaus continued to be used by many CPAs firms during the 1980s. Typically, the arrangement is as follows. The CPA would summarize the client data on input forms (which somewhat resembled the actual IRS form) and then submit the input form to a bureau. The bureau would convert the input forms to machine-readable data and process the return, sending back to the client the actual completed IRS forms. Usually a charge for the initial setup plus any subsequent changes made by the CPA (who passed on the charge to the client). The advantage of this system was that the forms were professional looking (when using a laser printer) and many errors could be "caught" by the computer program that a less-experienced CPA might miss. The bureau could also offer storage data offset, and be able to "format" the subsequent year's return with recurring data (names, social security number, employer, etc.) The formatted data could also be used for a "questionnaire" sent to the client at the start of the tax season. The questionnaire could be useful to remind the client of transactions which took place during the prior year (like a list of previously used charities). The biggest disadvantage to the service bureau model was lack of control and ability by the CPA to guarantee the completion of a tax return on a particular day (and in fact, the closer to April 15 the submission of the return, the longer the "turnaround" might take). (Waters, 1992)

As the tax preparer's usage of service bureaus and its laser printing technology because more dominant, the IRS began to notice, probably through the paper submissions of IRS forms that were laser printed in black-and-white, instead of the usually light-blue Form 1040. This was probably the first "encouragement" the IRS, or the US government gave to preparing tax returns using computer technology – after nearly 20 years of experimentation, failure and success of many small and large software companies. Because of this IRS recognition of a large number of computer prepared returns, the IRS began the process of submission of data on the returns online (instead of paper). In 1984, the IRS began drafting procedures on direct filing, with the goal of total online submission of forms by the early 1990s. (Malanga, 1984). In the early 1990s, the reduction in cost of both the tax return programs and computer memory and storage allowed many CPA firms to bring the technology "in house" on their own Local Area Networks – or LANs. This new system allowed the CPA to bypass the day (or more) of turnaround time that a service bureau might require. The tax information could be inputted directly into the computer, then information could be added, deleted or modified without the "back and forth" exchange with an external service bureau.

While the ease of the "in house" technology was paramount, the service bureau still offered at least some advantages in certain cases until the mid-1990s. The service bureau's ability to process any form from any state was important until the storage capacity of the smaller in-house computers could rival the large servers. By the mid-1990s, though, the in-house LAN systems had enough memory and was fast enough to handle any tax return, and the service bureaus became extinct. By the late 1990s, the computerized tax return preparation process became widespread with not just CPA firms, but also individuals who prepared their own returns via a computer. This increase also coincidence with the explosion in tax complexity as well. In 1993, 41 percent of all individual tax returns were done the "old fashion" way (pencil and IRS blue-and-white forms), but by 2003 it was only 13 percent. (Toder, 2005). This reduction was caused not only by paid preparers but also individuals, who by 2005 were using tax software at more than 30 percent of all tax returns. With the intention of making the programs more convenient, many programs also had tax law reference guides, IRS instructions and special interactive worksheets embedded within the software (Waters, 1992). Eventually this led to the current process whereby 90% or more of all individual returns are submitted online, augmented by software programs easily uploaded on personal computers via wireless systems (IRS, 2016).

A PATH FORWARD

The evolution of the history of the today's black box of tax preparer extends over 50 years, and finding a way to unwind taxpayers and lawmaker reliance on it may not be possible, or even desirable. Of course, the ability to file electronically has its advantages, and these should not go away – accuracy of

computations, immediate receipt by the IRS of forms, quick turnaround times for refunds. Much can be done to reduce the reliance on the "black box phenomenon."

The disconnect now between laws and computations required for many tax returns and the understanding the "citizen-taxpayer" has of the process cannot be ignored. In addition, the lack of regulations imposed on tax software firms, the failure of the US government to clearly and simply defined taxpayers penalties and expectations using tax software are growing dilemmas. First, consider the disconnect between For decades now, various researchers have suggested reducing exemptions and deductions or relying on more visible tax instruments, such as earmarking a portion of taxes paid to various services (Buchanan, 1963, for an early history). Mandating that various levels of government can only use certain sets of taxation for their purposes (income or sales or property or excise) would make the tax system more understandable (Afonso, 2014). In many other countries, tax returns can be prepared by the government, and given to the taxpayer merely for "approval." Countries like Denmark, Sweden, Spain, Chile and Estoria already pre-populate tax returns for their citizens based on government collected data from other entities. In other countries, like Japan and the United Kingdom, the vast majority of people do not have to file tax returns at all. (PWC, 2014). The idea that the US government could pre-populate many returns and merely have the taxpayer "approve" it is certainly not a new idea (Roskam, 2012). At this point in the computerized tax preparation evolution, considerable pushback will be provided by the companies that offer such services. Spross (2017) points out that the tax preparation business made $12 billion in 2016 and has no incentive to see less reliance on its services. In fact, Intuit, the maker of Turbo Tax, paid $1.7 million in lobbying expenses between 2001 and 2009 and $2 million in political campaign contributions with the intention of keeping the status quo of computerized tax preparation - if not growing it (York, 2009). Given wide ranging "preference" of its constituents for some tax breaks, deep lobbying efforts by tax preparation companies and belief by some the government should not both calculate and impose an income tax, a more modest possibility was suggested by Zelenak (2012) (p. 119):

> *"Congress's…. goal should be a set of income tax rules under which anyone armed with basic arithmetical skills and a calculator… could easily prepare his or her own tax return. This should be the goal not because the taxpayer will or should return to pencil-and-paper return preparation, but because adhering to this standard ensures tax system transparency…"*

Unfortunately, Zelenak idea of Congress' goal ignores the 15 to 20 million sole proprietors, landlords and farmers that each year that need to file a Schedule C, E or F. It would be impossible to have the US government prepopulate a tax return for them. On the other hand, though the goal for the entire 145 to 150 million individual tax returns are not possible, at least some percentage, perhaps 90%, could meet this rule? An example of this is the recently passed income tax law in the United States in December 2017– increasing the number of taxpayers who would not need to itemize deductions, from around 65% to almost 90%. Ultimately one solution will not change all tax returns, but a solution could move towards a near 100% resolution over time. In addition to prepopulated returns for most taxpayers, the IRS could also move much more proactively to make tax laws less confusing. One suggestion includes allowing IRS publications to be used as official regulations to the tax code, since it is written in much more easy-to-read style (Monroe, 2017). Another possibility is to make the "TurboTax Defense" more cleared outlined in the Tax Code and its Regulations (Mock and Shurtz, 2014). Lastly, Blank and Osofsky (2017) point out numerous ways that the taxpayers' instructions and filing system could be simplified by using laws that are currently written, including the Plain Writing Act of 2010 and the Taxpayer Bill of Rights of 2015.

CONCLUDING COMMENTS

Technological innovation often creates unintended consequences. This is certainly true of the evolution of computer-prepared tax returns. From its inconspicuous beginnings in the 1960s, today over 90% of 1040s are filed online. This growth has coincided with incredible increases in tax complexity over the same

period of time. The first 30 years or so of computerized tax preparation evolution did not appear to have the intention to make the tax liability obscure from the taxpayer. Instead, it appears to be simple "start and stop" phenomenon of trying to apply advancing computer software and hardware technology to In the mid-1960s, only 100,000 or so returns were prepared using a computer. The initial usage computer-prepared returns were driven by the belief that the computer would limit errors made by preparers. Eventually though, the computer-prepared returns became so widespread that Congress could pass more and more complex laws, and taxpayers would simply rely more and more on the technology available. In addition, the IRS began to rely more and more on the electronic versions to lower its costs as well, and tax preparation companies began to enter the political arena of lobbyists to preserve the status quo.

This sort of "black box" system of tax preparation is not an optimal outcome for the taxpayer or the government for a variety of reasons. Taxpayers do not understand what their marginal tax rate is, and many do not understand the effects of additional work or investment decisions. The idea that all taxpayers should be able to complete a tax return using simply a pencil and a calculator seems overly ambitious. It could never be achieved given the economic complexity of the world today along with so much political polarization. On the other hand, the current system of simply creating more and more tax laws and "relying" on the growing technology of computerized is not feasible either. Unfortunately, creating such a simple system of taxation will mean considerable pushback from both some constituent groups, tax preparation software companies and tax preparation companies. Ultimately though, the possibility of increasing the amount of returns that can be "auto-prepared" by the US government to a level of 90% or better is a possibility. Future researchers will need to further examine the extent to which an individual's income tax liability is hidden, and what factors (political, economic or social, including computer technology) hide that information, and how to make it more known and accessible to the taxpayer, as well as how to "auto-populate" more and more tax returns.

.

REFERENCES

Afonso, W. (2014) "A Lack of Transparency is Leading to Fiscal Illusion Where Citizens Underestimate Their Tax Burdens and the Cost of Government" available at http://blogs.lse.ac.uk/usappblog/2015/01/02/a-lack-of-transparency-is-leading-to-a-fiscal-illusion-where-citizens-underestimate-theirtax-burdens-and-the-cost-of-government/

Anonymous 1. (1973) *The Journal of Accountancy*. October, 30.

Anonymous 2. (1974) *The Journal of Accountancy*. June. 26.

Blank, J. and Osofsky, L. (2017). "Simplexity: Plain Language and the Tax Law." *Emory Law Journal 66.* 189-267.

Brink, W and Lee, L. (2015). "The Effect of Tax Preparation Software on Tax Compliance: A Research Note." *Behavioral Research in Accounting 121*. 130-131.

Buchanan, J. (1963). "The Economics of Earmarked Taxes." *Journal of Political Economy*. 71, 5. October. 457-469.

Burton, H. and Karlinsky, S. (2016). "Tax Professionals' Perception of Large and Mid-Size Business US Tax Law Complexity." *eJournal of Tax Research*. 14, 1. 61-95

Commissioner of Internal Revenue. (1916) *Annual Report of the Commissioner of Internal Revenue for the fiscal year ended June 30*. Government Printing Office, Washington, DC.

Drew, J. (2012) "Technology and CPAs: Visions for the Future." *The Journal of Accountancy* June. 28-30.

Fennell, L. and Fennell C. (2003) "Fear and Greed in Tax Policy: A Qualitative Research Agenda," *Washington University Journal of Law and* Policy 13, 75-126.

Frotman, A. (1979) *The Journal of Accountancy,* August, 11.

Goolsbee, A. (2004) "The TurboTax Revolution: Can Technology Solve Tax Complexity?", in The Crisis in Tax Administration, (H. Aaron & J. Slemrod, editors).

Gunter, S. (2016) "Your Biggest Refund Guaranteed? Internet Access, Tax Filing Method and Reported Tax Liability" May 11. (Unpublished Manuscript), available at https://drive.google.com/file/d/0B4snyKeCkR6pRmJ5SVV4WUJyNkU/view [https://perma.cc/C6W7-HNAP].

Hurley, T and Hetherington, K. (2014) "Fiscal Illusion, Taxpayer Disconnect and a Flawed Tax System: Catalysts for Income Tax Reform." *Barry Law Review 19*, 1-20.

Kanter, N. (1975) "1975 report of computer tax return preparers: A report on services available this year." *Taxation of Accountants,* September. 162

Malanga, F. (1984) "Innovations in Filing Tax Returns: New Approaches for Computer-Prepared Returns," The Tax Adviser, October. 619.

McAuliff, M. (2009) "Treasury-Secretary designate Timothy Geithner filed his own taxes with TurboTax." *New York Daily News*. January 22. 1.

Mehrotra, A. (2015) "Reviving Fiscal Citizenship." *Michigan Law Review 113*, 943-974.

Mock, R. and Shurtz, N. (2014) "The TurboTax Defense." *Florida Tax Review 15*, 443-470.

Monroe, A. (2017) "Hidden in Plain Sight: IRS Publications and A New Path to Tax Reform." *Florida Tax Review 21*, 81-146.

Nunes, D. (1983) "Computer Programs Aid Tax Return Preparation." *Washington Post*. February 14. 23.

Pacter, P. (1971) "Computerized Tax Returns: A Tax Season '71 Roundup." *The Journal of Accountancy.* August. 15-18.

PWC. (2014) "Paying Taxes 2014: The Global Picture – A Comparison of Tax Systems in 189 Countries" available at https://www.pwc.com/gx/en/paying-taxes/assets/pwc-paying-taxes-2014.pdf

Rea, R. (1969) "Computer-prepared tax returns." *The Journal of Accountancy.* May. 82-83.

Rearick, A. (1914) "Simplification of the Income Tax." *Proceedings of the Annual Conference on Taxation*. 298-313

Roskam, P. (2012) "It's time to codify the Free File program." The Daily Caller. April 18.

Skaddin, K. (1982) Multi-Tax Prices Up Slightly as Flexibility in Computer-Processed Returns Increases, Companies Dwindle" *Taxation for Accountants.* September. 154.

Smith, W. (1961) "Electronic Data Processing in the Internal Revenue Service," *National Tax Journal*. September. 14-17.

Soled, J. and Thomas, K. (2017) "Regulating Tax Return Preparation." *Boston College Law Review*. 151-204.

Stern, A. (1965) "CPA's critique of computerized tax returns." *The Journal of Accountancy*. August. 18.

Taxpayer Advocate Report, 2010 available at https://www.irs.gov/advocate/national-taxpayer-advocates-2010-annual-report-to-congress

Toder, E. (2005) "Changes in tax preparation software methods, 1993-2003." *Tax Notes.* May. 619.

Ventry, D. Jr. (2010) "Intuit's Nine Lies Kill State E-Filing Programs and Keep 'Free' File Alive," *State Tax Notes*. Vol. 57. 561–62

York, A. (2009) "Turbo Tax maker Intuit, again, is mired in political turmoil." *Capitol Weekly: Covering California Government and Politics.* September 24.

Waters, T. (1992) "Tax preparation software: An invaluable tool that should be in every practitioner's future." *The Tax Adviser*. July. 23-29.

Woehlke, J. (1995) "Tax Practice: Keeping Pace in a Changing World." *The CPA Journal.* December. 27-29.

Zelenak, L. (2007) "Justice Holmes, Ralph Kramden, and the Civic Virtues of a Return Filing Requirement," *Tax Law Review*, Vol. 53, 71–72.

Zelenak, L. (2012) "Complex tax legislation in the Turbo Tax era." *Columbia Journal of Tax Law*, Vol 1. 91-119.

ACKNOWLEDGEMENTS

The author wishes to thank the Tax History Center at the University of Mississippi for making available their resource material that contributed substantially to this work. Additionally, comments from two anonymous reviewers of this journal and participants in the 2016 Strategic and Emerging Technologies Workshop of the American Accounting Association were also very valuable. Any remaining errors are solely the fault of the author.

BIOGRAPHY

Robert J. Walsh is an associate professor of accounting in the Gupta College of Business at the University of Dallas. He holds four degrees from the University of Notre Dame (BBA accounting, MBA taxation, MS economics and PhD economics) and is an active CPA in the state of Texas. He has taught in the areas of accounting and taxation over the past 25 years. A member of the Texas Society of CPAs and the American Institute of CPAs, he is also a Hall of Fame inductee to the Northeast Region of the American Accounting Association.