## An All Too Real Neverending Story: Federal Income Tax Complexity

### Robert E. Rosacker Minnesota State University Mankato

### Kirsten M. Rosacker Minnesota State University Mankato

This research effort extends the work of Rosacker and Davies (1997) to re-validate their tax complexity model. The empirical outcomes of the current study permit a comparative assessment of tax complexity across time while additionally allowing for the immediate consideration of several significant tax reforms enacted within the Tax Cuts and Jobs Act of 2017. The primary research question is whether the model helps inform tax policy choices targeted at decreasing tax complexity through a focus on the enacted tax reforms, a critical objective specified for the original research effort. This study enhances the literature by assessing and comparing federal income tax complexity under prior, existing, and subsequent tax systems. A complexity measurement model has been created utilizing data developed under the IRS, allowing the investigation of a database created annually by the IRS.

Keywords: tax complexity, federal income taxation, TCJA 2017, Internal Revenue Code, tax forms

#### **INTRODUCTION**

<u>The Neverending Story</u> (German: Die unendliche Geschichte) is a German fantasy novel by Michael Ende, first published in 1979. It has become an object of fascination for many people, capturing the imagination of children at its core. An English translation by Ralph Manheim was first published in 1983 being later adapted into several films. The majority of the story takes place in the parallel world of Fantastica (Phantásien in the original German version; referred to as Fantasiain the films), a world being destroyed by the Nothing, which represents and constitutes people's lack of imagination in the real world. A compelling argument can be posited that the United States system of federal income tax (the Nothing) is destroying our economic environment (the World). One need only listen to the myriad political arguments flowing from debates surrounding United States (US) tax policies to at least understand these doomsday thoughts and scenarios.

Yet, the system is not unfixable; it only appears that way due largely to a lack of imagination amongst our politicians and citizens about how to go about fixing the system and, more importantly, no belief that such a goal is attainable. From this simple, childlike viewpoint, the important topic of federal income tax complexity can inform the debate and encourage movement toward a resolution of these fundamental issues. It is true that most, although not all, taxation systems rely upon the general concepts of fairness, equity, and to some degree, simplicity related to compliance (see Tax Policy Concept Statement #1, AICPA). This need for and advisability of this later concept is widely understood and agreed to by the various interested parties. It is undoubtedly the case for a system founded on the idea of self-reporting and self-assessment.

On April 6, 2001, the Government Accounting Office issued a letter to the Joint Committee on Taxation stating, in part, that the "National Commission on Restructuring the [Internal Revenue Service (IRS)] ... had concluded that the tax law should be simplified ... report[ing] a connection between the complexity of the Internal Revenue Code (IRC) and the difficulty of administering it and taxpayer frustration" ... permitting the conclusion that complexity leads "to inadvertent noncompliance, increased costs to taxpayers, and complicating tax collection." In 2015, the Joint Committee on Taxation conducted hearings on federal income tax complexity. In their report, they offered:

Quantifying the effect of complexity on the Federal tax system is difficult. Statistically, it may not be possible to separate this particular effect from other factors that may also affect tax collection. Furthermore, there is no generally agreed-upon measure of changes in the level of complexity in the Federal tax system over time (emphasis added). Nonetheless, experts generally agree that complexity plays an important role in the effectiveness of the Federal tax system (page 6).

It is clear and certain that those responsible for guiding tax law changes, such as the Committees of Congress that address tax law, recognize the existence and considerable impacts associated with perceived and real tax complexity and that they would welcome guidance in the form of an empirical measure of tax complexity to assist in their discussions of and decisions surrounding tax reform initiatives.

Recently, concerning the increased presence and presence of technology aids to assist with completing tax returns, Walker (2022) offered that:

[t]he Federal Income Tax Code has become increasingly complex over time with the implication that many taxpayers no longer understand the connection between their life decisions and their taxes. Some commentators have suggested that increasing computational complexity may be attributable in part to the proliferation of tax preparation software that renders such complexity manageable at filing time, but otherwise does nothing to mitigate the "black box" nature of the tax system (page 1).

To the extent that the existing system is perceived, by all interested parties, to be or is complex - meaning it appears to or requires too much effort to comply with, manage one's affairs within (tax planning), and administer - the very foundation and stability becomes less and less secure and its demise becomes more and more predictable and inevitable. And, importantly, technology appears to be an exacerbating factor that solves computational issues without addressing the fundamental issue of clarity. Therefore, tax complexity is a real and important issue. Research that normatively argues this point is useful; efforts that empirically validate or refute the point are illuminating and important to the debate.

The study builds upon the work of Rosacker and Davies (1997) which addressed the issue of tax complexity and taxpayer compliance by developing and validating a model utilizing information publically available from the IRS. They utilized IRS estimated times for preparing individual income tax return forms/schedules to develop a scale of tax complexity. The resulting scale was utilized in an analysis of the Statistics of Income (SOI) databases of individual income tax attributes for 1989 individual income tax returns. The resulting models provided a means for quantifying federal income tax complexity at the individual tax return level and a mechanism for comparing past and current/future complexity levels in the aggregate as well as a methodology for considering tax reforms' impacts on tax complexity. The current research effort addresses the objective of confirming the original model specification using another dataset, 2006 individual income tax returns. Combined, these two the findings of these two studies provide an assessment at two distinct points in time and importantly, permit a consideration of the impacts of several tax changes that were enacted in the Tax Cuts and Jobs Act (TCJA) of 2017 upon tax complexity.

The paper proceeds as follows: first, a review and critique of the literature on tax complexity is presented; second, the tax complexity model is specified; third, empirical validation of the paragon is offered through the use of two tax seasons separated by approximately two decades; fourth, an assessment of several significant tax changes included within the TCJA is conducted; fifth, conclusions, contributions, and thoughts on future research are advanced; and finally, limitations surrounding this modeling process for measuring tax complexity are tendered.

#### LITERATURE REVIEW

Several different approaches have been utilized to measure federal income tax complexity, often as one of the first steps in an attempt to understand the behavioral aspects of tax evasion. While some techniques focused on the taxpayer, others have considered the issue of complexity from the viewpoint of the tax practitioner. These alternative methodologies are briefly reviewed and critiqued below.

In 1970, an IRS unpublished paper, "A Cross Section Regression Model of Audit and Non-Audit Factors Affecting Taxpayer Compliance," proposed an income tax complexity index that involved a count of the forms and schedules (form/schedule) taxpayers filed with their returns. While easy to compute, this simplistic measure did not take into consideration the different levels of complexity of each form/schedule or the individual circumstances affecting each taxpayer who filed a particular form/schedule.

Clotfelter (1983) utilized a schedule-based complexity index to examine the relationship between tax evasion and tax rates. Individual US tax return data collected by the IRS during 1969 under its Taxpayer Compliance Measurement Program (TCMP) was analyzed. In situations where a taxpayer had filed four of the then-existing Schedules A through G, a (0,1) dummy variable was included in the regression equation. No rationale was provided concerning why these schedules, and only these schedules, were selected or why the filing of at least four of them caused a return to be considered complex. As with the IRS approach, no distinction was made regarding the relative complexity of each schedule. In addition, no forms, a significant component of many tax returns, were considered.

Witte and Woodbury (1985) also employed the 1969 TCMP data to develop an economic model of tax compliance, adopting tax return complexity as one indicator of the opportunity for non-compliance. Their measure of tax return complexity was based on the average number of tax forms/schedules filed with a return. The authors' rationale in using a forms/schedule count as part of their analysis was that separate forms/schedules were necessary for taxpayers to report nonwage income and deductions were more frequently under-reported than wages and salaries. No information was provided as to how many, or which forms/schedules were considered or whether the same forms/schedules were used for all taxpayer records included in the study.

Long and Swingen (1987) surveyed 84 lawyers, tax accountants, tax educators, and seasonal employees of a commercial tax preparer in a two-pronged effort at measuring tax law complexity. The survey results provided evidence that the five most complex line items were capital gain/loss income, employee business expenses, disability income exclusion, tax liability from income averaging, and moving expenses. While informative, the small sample size and the failure to analyze the experience or other demographic factors of the study's participants bring its predictive value into question. In addition, simplifying assumptions made by the authors as to the characteristics of the tax return, including consideration of only Form 1040 and the omission of tax return line items due to their arguably "infrequent" use, severely limits the scope of the study. Finally, tax complexity was considered only from a tax practitioner's viewpoint and, as a result, the taxpayers' perspective was missing or minimal at best.

Slemrod (1992) considered tax simplification concerning the Tax Reform Act of 1986 that emanated from a Treasury Department proposal in 1984 entitled Tax Reform for Fairness, Simplicity, and Economic Growth. Simplification was a major concern of the debate surrounding this legislation and the author sought to measure this goal using both direct and indirect metrics. His findings, not surprisingly, indicate that "despite a few scattered signs" of positive movement, "little, if any, simplification in the tax system …" was achieved. Of significance and importance to the current effort, he concluded on a positive note stating that "one critical element that helps to keep simplicity on the political agenda is having quantitative

measures of the cost of complexity and compliance" – a primary objective of Rosacker and Davies (1997) and the current study.

Rosacker and Davies (1997) addressed the need for an improved tax complexity measure as a means of quantifying the existing level of income tax complexity. Their work provided an empirical methodology for comparing prior and present tax law permitting an assessment of the goal of tax simplification. They asserted that the primary concern surrounding income tax complexity appeared to be related to its impact on compliance and the perception of equity; therefore, a logical approach to assessing the law's intricacies was to consider the issue from the taxpayer's viewpoint. A tax return approach has practical appeal as changes in the law are necessarily incorporated into the individual tax return. Such an orientation captures the aggregate essence of existing law while reflecting the differences among individual taxpayers through the numbers and types of forms/schedules filed with each return and the lines and worksheets completed. It is from this wholly reasonable perspective that they developed, tested, and validated a tax complexity model. The current research effort is directed at the re-validation of their model and using the validated model to assess tax reforms enacted in 2017.

Johnson (2003-2004) affords a comprehensive and well-written discussion on the issue of tax complexity. Specific to the current study, the author describes forms complexity as one measure of overall complexity. It is towards this measure of tax complexity and its intersection with taxpayer compliance that the current work is directed.

Slemrod (2005) studies the issue of complexity through the lens of several state income tax systems. Using an empirical measure based on the number of lines in the various state-level tax forms and instruction booklets, he considers potential explanations for the "disease of tax complexity" by comparing tax systems within the context of demographic variables. While his focus is not on a pure measure of tax complexity, it does continue the time-honored use of a simple measure for complexity – one based in part on the tax forms as a proxy for the concept under study. Indeed, as a highly respected and widely published tax scholar, Slemrod's use of this straightforward measure that recognizes and accounts for the differences between tax forms – each is not created equally and therefore is not comparable in a simple mathematical sense - would certainly be preferable if available.

#### TAX COMPLEXITY MODEL SPECIFICATION

Rosacker and Davies (1997) rely upon a measure of taxpayer burden involving estimated times to prepare various tax forms/schedules. These measures were developed by Little (1988) under a two-year contract to the government as required by the Paperwork Reduction Act of 1980. A burden was defined for this purpose as the time (in hours) spent by taxpayers in performing tax paperwork-related activities. The process utilized by Little is described in detail in Rosacker and Davies (1997). A brief review is provided here.

Estimated preparation times are generated for four tasks incident to the completion of a form/schedule: (1) record-keeping, (2) learning about the law or form/schedule, (3) preparing the form/schedule, and (4) copying, assembling, and sending the form/schedule to the IRS While the actual time needed to complete the forms/schedules will naturally vary depending on the individual circumstances and tax "sophistication" of a taxpayer, the time estimates provide insight into and a foundation for measuring the complexity of a tax return.

For purpose of tax complexity model specification, forms/schedules requiring a total preparation time of (1) less than 181 minutes (0.00 to 2.99 hours) were assigned 1 complexity point; (2) 181 but less than 600 minutes (3.00 to 9.99 hours) were scored at 2 complexity points; (3) 601 to 1,200 minutes (10.00 to 19.99 hours) were assigned 3 complexity points; and (4) those requiring at least 1,000 minutes (more than 16.67 hours) were scored 4 complexity points. In addition to the forms/schedules included in the original model, eleven other items representing line items on tax returns, but for which there are no separate forms/schedules, were assigned complexity points, again based on the experience and judgment of the authors. These items included filing status, dependents, tax-exempt interest, tax refunds, IRA and pension

distributions, Social Security benefits, self-employed health insurance, and IRA and Keogh/SEP deductions. Long and Swingen (1989) used several of these additional items as part of their complexity measure. Table 1 provides the details and specifics for this critical mapping process.

	Minutes to Prepare	Complexity Points		Minutes to Prepare	Complexity Points
Form 1040 - US Individual Income Tax Return	564	2	Supporting Forms:		
Form 1040A - US Individual Income Tax Return	425	2	1116 - Foreign Tax Credit	321	2
Form 1040ES - Estimated Tax Payments	191	2	2106 - Employee Business Expenses	270	2
Form 1040EZ - US Individual Income Tax Return	80	1	2210 - Underpayment of Tax	198	2
Form 4868 - Automatic Extension of Time	77	1	2439 - Notice to Shareholder (Undistributed LTCG)	129	1
			2441 - Child and Dependent Care Expenses	89	1
Single	N/A	0	2555 - Foreign Earned Income	315	2
Married Filing Joint	N/A	0	3468 - Investment Tax Credit	2223	4
Surviving Spouse	N/A	1	3800 - General Business Credit	714	3
Head of Household	N/A	1	3903 - Moving Expenses	129	1

# TABLE 1COMPLEXITY SCALE

Married Filing			4136 - Credit		
Separate	N/A	2	for Tax Paid on Fuels	464	2
Dependents	N/A	1	4137 – Social Security Unreported Income	64	1
Tax-Exempt Income	N/A	1	4255 - Investment Tax Credit Recapture	773	3
State Tax Refund (Tax Benefit Rule)	N/A	1	4562 - Depreciation and Amortization	2270	4
IRA Distributions	N/A	1	4684 - Casualties and Thefts	178	1
Pension Distributions	N/A	1	4797 - Sales of Business Property	3610	4
Social Security Benefits	N/A	1	4835 - Farm Rental	267	2
IRA Deduction (Taxpayer)	N/A	1	4970 - Tax on Accumulated Distributions.	198	2
IRA Deduction (Spouse)	N/A	1	4972 - Tax on Lump-Sum Distributions	165	1
Self-Employed Health Insurance	N/A	1	5329 - Tax on IRA/Qualified Plan	314	2
Keogh/SEP Deduction	N/A	1	5884 - Jobs Credit	306	2
Supporting Schedules:			6251 - Alternative Minimum Tax	309	2

A - Itemized Deductions	274	2	6478 - Alcohol Fuels Credit	782	3
B - Interest and Dividend Income	77	1	6765 - Research Activity Credit	648	3
C - Profit or Loss from Business	578	3	8283 - Noncash Charitable Contribution	115	1
D - Capital Gains and Losses	225	2	8582 - Passive Activity Loss	216	2
E - Supplemental Income or Loss	350	2	8586 - Low- Income Housing Credit	697	3
F - Profit or Loss from Farming	967	3	8606 - Nondeductible IRA Contribution	74	1
R - Credit for the Elderly	92	1	8615 - Tax for Children under 14	78	1
SE - Self- Employment Tax	82	1	8801 - Credit (Prior Year Minimum Tax)	239	2

#### TAX COMPLEXITY MODEL VALIDATION

As a test of the reasonableness and predictive value of the specified model, complexity scores were calculated for both tax seasons placed in consideration here. For 1989, the Tax File prepared by the IRS as part of the SOI program included 96,588 returns to model 112.2 million tax returns in the population, while the 2006 SOI Tax File contains 145,858 tax returns representing 138.0 million tax returns processed during that tax season. Each of the Tax Files consists of a stratified sample of individual tax returns designed to provide statistical information relative to the population. Included in the data is an integer-weighting factor that allows an extrapolation to the population of returns.

Table 2 presents complexity score attributes by adjusted gross income (AGI) for the population of individual tax returns as represented in each of the samples (1997 and 2006). As the table reveals, returns of taxpayers with negative AGI or with high levels of AGI typically had, on average, obtained larger complexity scores when compared to other AGI levels, a result that would appear to be quite logical. The mean complexity score for the population of individual tax returns, as represented by the samples, was respectively calculated to be 6.2516 and 7.0839. From these metrics of complexity, it would appear that the

individual income tax system has become approximately 13.28 percent more complex across these tax seasons. Three tax forms (3903, 6478, and 8586) that had been included in the initial study are not included in the 2006 complexity measure as they could not be directly identified in the SOI sample. Their exclusion means that the 2006 complexity measure is slightly higher than that reported – in other words, the system is somewhat more complex than the 7.0839 measure.

Table 3 reports on the population of individual tax returns, as represented by the two stratified samples, by complexity scores. Complexity scores between one and five serve to classify 57.44 and 50.22 percent of individual tax returns as "simple." Twenty-four point thirty-three (24.33) and 27.77 percent of the individual tax returns are identified as "moderately complex" obtaining complexity scores between six and ten. Finally, 18.23 and 22.00 percent of the individual tax returns are found to be "complex" with complexity scores above 10.

According to the 1989 Tax File, 36.20 percent of the returns filed by individuals were filed on, or should have been filed on, either Form 1040A or Form 1040EZ. It seems reasonable that these tax returns would typically be considered "simple." It is highly probable given the points assigned by the proposed model to the most common forms/schedules, that a significant number of Form 1040 tax returns filed in 1989 would also be viewed as "simple." Therefore, the empirical findings from the model identifying 57.44 percent of the 1989 individual tax returns in the population as "simple" appear to be quite reasonable. Similar numeric comparisons were reported for the 2006 Tax File.

It can be inferred from these two distinct tests, using different tax filing seasons, that the model behaves reasonably and predictably which permits it to serve as a fair representation of the distribution of individual tax returns across simple to complex scaling. Therefore, this modeling technique, cemeteries paribus, has some potential to provide insight into the tax complexity associated with a given tax filing season and for comparisons across time periods. Additionally, it seems clear that the model may be useful for assessing changes in the underlying tax system – such as enacted tax reform measures with a stated objective of simplifying the complexity inherent in the existing tax system.

AGI Bracket	Number of Returns (1989)	Percent of Returns (1989)	Mean (1989)	Number of Returns (2006)	Percent of Returns (2006)	Mean (2006)
<= \$0	823,717	0.7341%	11.0204	2,610,949	1.8922%	6.1033
\$1-\$1,999	6,970,832	6.2123%	2.4356	3,936,099	2.8526%	3.4164
\$2,000-\$3,999	6,710,820	5.9810%	2.8186	5,014,624	3.6343%	3.2712
\$4,000-\$5,999	6,208,337	5.5331%	3.3431	4,947,715	3.5858%	3.4487
\$6,000-\$7,999	6.092,927	5.4303%	3.9045	4,825,158	3.4969%	3.9782
\$8,000-\$9,999	5,812,533	5.1804%	4.3177	4,624,028	3.3512%	4.5992
\$10,000-\$11,999	5,949,375	5.3024%	4.4644	4,554,077	3.3005%	4.8588
\$12,000-\$13,999	5,760,258	5.1338%	4.6724	4,697,405	3.4044%	4.8048
\$14,000-\$15,999	5,103,984	4.5489%	4.9136	4,504,861	3.2648%	4.7459

 TABLE 2

# INDIVIDUAL TAX RETURNS COMPLEXITY SCORE CLASSIFIED BY AGI BRACKET

\$16,000-\$17,999	4,801,555	4.2794%	5.0993	4,585,836	3.3235%	4.9043
\$18,000-\$19,999	4,457,562	3.9728%	5.3564	4,428,019	3.2091%	4.9748
\$20,000-\$29,999	16,959,360	15.1150%	6.1730	18,400,562	13.3355%	5.2578
\$30,000-\$49,999	20,694,992	18.4443%	8.0353	24,588,991	17.8204%	6.4732
\$50,000-\$74,999	9,928,319	8.8486%	10.3180	18,993,164	13.7650%	8.5368
\$75,000-\$99,999	3,060,371	2.7275%	12.7496	11,143,297	8.0759%	10.2458
\$100,000- \$199,999	2,081,948	1.8555%	15.5883	12,049,372	8.7326%	12.7073
\$200,000- \$499,999	612,783	0.5461%	18.6513	3,133,137	2.2707%	18.2662
\$500,000- \$999,999	115,634	0.1031%	20.1756	591,166	0.4284%	21.3668
\$1,000,000 >	57,668	0.0514%	21.8937	353,486	0.2562%	23.6006
Totals	112,202,525	100.0000%	6.2516	137,981,946	100.0000%	7.0839

# TABLE 3 INDIVIDUAL TAX RETURNS CLASSIFIED BY COMPLEXITY SCORE

Complexity Score	Number of Tax Returns (1989)	Percentage of Total Tax Returns (1989)	Number of Tax Returns (2006)	Percentage of Total Tax Returns (2006)
1	19,955,750	17.7855%	22,491,809	16.3005%
2	9,896,370	8.8201%	8,874,360	6.4315%
3	12,365,466	11.0207%	10,206,219	7.3968%
4	13,792,207	12.2922%	18,730,632	13.5747%
5	8,437,546	7.5199%	9,000,576	6.52300%
Totals	64,447,339	57.4384%	69,303,596	50.2266%
6	7,199,513	6.4165%	8,404,471	6.0910%
7	6,736,374	6.0038%	7,835,561	5.6787%
8	5,454,883	4.8616%	7,743,140	5.6117%
9	4,389,258	3.9119%	7,388,877	5.3550%

10	3,521,758	3.1388%	6,949,523	5.0365%
Totals	27,301,786	24.3326%	38,321,572	27.7729%
11	3,014,233	2.6864%	4,422,197	3.2049%
12	2,546,288	2.2694%	4,036,330	2.9253%
13	2,443,568	2.1778%	3,391,663	2.4580%
14	2,147,600	1.9140%	2,973,344	2.1549%
15	1,877,081	1.6729%	2,571,471	1.8636%
16	1,614,409	1.4388%	2,116,941	1.5342%
17	1,276,857	1.1380%	1,840,897	1.3342%
18	1,120,426	0.9986%	1,503,247	1.0895%
19	975,871	0.8679%	1,368,110	0.9915%
20 or more	3,437,067	3.0635%	6,132,578	4.4445%
Totals	20,453,400	18.2290%	30,356,778	22.0005%
Mean Score	6.2516		7.0839	

#### TAX CUTS AND JOBS ACT OF 2017

Much has been offered for an extended period by a long and often well-respected string of interested parties concerning the significant advantages of moving towards a simpler, more understandable US individual income system. At times, these discussions have focused considerable attention on the ideas of consumption or national sales tax, mirroring successful implementation in several other industrialized nations. In the alternative, a "flat" tax has been proposed with the best paradigm and implementation being the many time-honored renditions of the alternative minimum tax. Concurrently, a simple reorientation of the Code to include legislative modifications such as the elimination of itemized deductions and personal exemptions and the removal of many tax preference items that are too specifically targeted at social objectives – arguably poor tax policy. However, what constitutes poor tax policy certainly depends upon a person's pre-disposition and orientation towards achieving particular economic and social goals and objectives through the use of the tax system. Republicans, Democrats, Independents, and others of differing political persuasions often strongly disagree in this regard. Yet, recently, there has been movement in this later regard as The Tax Cuts and Jobs Act of 2017 significantly overhauled the existing individual income tax system and it is towards an empirical evaluation of several of these tax law changes that our attention is now directed.

Using the tax complexity model posited and validated in this research, it is possible to proactively consider some of the changes enacted within The Tax Cuts and Jobs Act of 2017 and thereby inform the debate through an empirical assessment. To empirically test three of the enacted changes, three tax attributes were removed from the model - itemized deductions (Schedule A: 1 complexity point); exemptions (1 complexity point); and the alternative minimum tax (Form 6251: 2 complexity points) – and a revised measure of aggregate tax complexity determined. The resulting measure of aggregate complexity (5.8738)

is 17.08 percent lower than that specified by the initial 2006 tax returns model that included the tax complexity impacts associated with these three tax provisions. Given these results, it is reasonable to assert that these legislative modifications to the Internal Revenue Code will substantially lower tax complexity in tax seasons where such reductions to the tax base are not permitted. To fully evaluated these three changes, and other enacted changes, it will be necessary to wait for the release of the IRS SOI individual tax files for 2018 and beyond tax seasons. At that time, it will be possible to further assess the use of this tax complexity model to evaluate actual and proposed changes to tax law.

There are several important conclusions for taxpayers, tax preparers, and Congress that flow directly from this evidence. First, for taxpayers and tax preparers, the post-2017 individual income tax system appears to be less complex, meaning that compliance will be easier in terms of time and less costly for all. This finding has implications at the state level, although to a lesser degree, as many, but not all, states use the federal tax base, in some form, as a step-off point for such filings. Second, tax planning activities will be easier and more accurate as the complexities associated with functioning in a more complex, perhaps dual tax system – regular and alternative minimum taxes – have been eliminated through the later change. This would surely represent a welcome outcome for all. Third, it is almost certain that bigger regular tax collections will accompany the increased tax base that will certainly result from less reliance on fewer itemizers. Finally, assuming these conclusions have merit, the legislative scenario for The Tax Cuts and Jobs Act of 2017 is a win-win-win for Congress. Legislators could truthfully state that they acted to lower complexity, to decrease tax rates (and we know taxpayers at all income levels appreciate this), and did so in a manner that did not add to the growing budget deficit.

#### CONCLUSIONS AND CONTRIBUTIONS

The Rosacker and Davies (1997) model for measuring tax complexity proposed in their paper and extended in this research incorporates many of the positive aspects of previous approaches. The taxpayer's perspective is weighted heavily since the tax return as filed greatly affects the level of complexity (note that the IRS SOI file makes corrective adjustments concerning which forms/schedules should have been filed with a return.) These forms/schedules which have been filed are pre-tested on groups of taxpayers. The opinions of tax experts are considered part of the development process surrounding tax forms/schedules and instructions. Estimated preparation times, the focus of this approach, is based on the number of lines on a form/schedule, and the relevant Code section or sections. Furthermore, all taxpayers, including tax experts, have the ongoing opportunity to comment upon the reasonableness of these estimates.

The findings reported here add to the literature by providing a means of assessing and comparing federal income tax complexity under prior, existing, and subsequent tax systems. A complexity measurement model has been created utilizing data (estimated preparation times) developed under the auspices of the IRS and which permits the manipulation of a database generated annually by the IRS. The model used to generate estimated preparation times is capable of predicting differences in burdens arising from various changes in forms/schedules and reporting requirements, including (1) additions or deletions of forms/schedules, (2) additions or deletions of line items, (3) additions or deletions of worksheets, (4) changes in record-keeping requirements and (5) changes in filing requirements. The impact that actual and proposed changes in the tax law will have on complexity can now be measured either prospectively as tax law changes are being considered, or retroactively following the enactment of new tax provisions.

Two tests of aggregate tax complexity were completed using the validated model. First, a comparison of the 1989 and 2006 tax seasons was completed enabling an assessment of the changing pattern of complexity across time. Second, a proactive evaluation of the current tax changes - simulated eliminating/reducing itemized deductions, personal exemptions, and the alternative minimum tax - was conducted. It is clear and certain that these findings add to evidence that could be utilized in the ongoing debate surrounding the issue of tax complexity – a debate that shows no signs of resolution at this time (see Keating (2010, 2012, 2014)).

#### LIMITATIONS AND FUTURE RESEARCH

The paper has several basic limitations. First, the estimated preparation times used are averages. The actual preparation times of individual taxpayers may be higher or lower that the average, which could warrant a different amount of complexity points being assigned to a particular return. Second, Rosacker and Davies (1997) relied heavily on the authors' own experiences and judgment both in assigning complexity points once average preparation times were known and in developing the complexity ratings. Third, factors other than the filing of federal tax returns may impact the level of complexity, such as administrative and procedural aspects of the law and its enforcement. Fourth, many of the recently adopted tax complexities involving such things as deduction and exemption phase-outs, for example, are not considered here. These items unquestionably would add to the complexity over time. Nonetheless, even with these limitations, the model presented in this study provides a foundation upon which the initial measure of complexity can be developed in a rather straightforward manner with readily available data sources, and that, ladies and gentlemen constitute progress.

For future research, the IRS SOI program releases, on a rolling basis, individual income tax files for research purposes across tax filing years. As of this date, the SOI files for 2012 to 2015 are available to researchers. The Tax Cuts and Jobs Act of 2017 provisions generally take effect with the 2018 tax filing year and beyond. As such, a full measure and assessment of its impacts, including those discussed above and proactively assessed, cannot be measured until these files are released. It is at that time that a more complete understanding of the ability of the Rosacker and Davies (1997) model of tax complexity to predict the impacts of legislative changes can be undertaken.

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