Income Tax Reform: The Central Great Plains Before and After

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Abstract

The Tax Cuts and Jobs Act (TCJA) was passed into law in 2017. Positioned as a step toward tax simplification for individual taxpayers, the tax law changes largely began to take effect in 2018. The key elements of the act which targeted simplification were increases in the standard deduction and additional limitations on itemized deductions. The act also eliminated tax exemptions for dependents and lowered tax rates for most individuals. The impact on taxpayers was immediate. This paper analyzes the direct impacts of the TCJA on Central Great Plains States (Kansas, Nebraska, North Dakota, and South Dakota) taxpayers by comparing taxpayer attributes before and after the TCJA's implementation. The paper also analyzes other tax attribute changes during the period for the Central Great Plains States region which were unrelated to the TCJA. The paper concludes with an analysis and comparison of tax attributes for the Central Great Plains States and the nation as a whole after the effective date of the TCJA.

Introduction

Ben Franklin is unofficially credited with the statement "Nothing is certain except death and taxes." (Shapiro, 2008) With all deference to Mr. Franklin, the passage of time has proven him to be perhaps half right. Death remains the inevitable endpoint of our lives. But certainty, although desired in a tax system, has remained more elusive. Adam Smith also recognized certainty as one of his Canons of Taxation, his rules for the optimal taxing system. (Smith, 1937, p. 777) Mr. Smith stated that with tax certainty came transparency. Taxpayers could plan for their inevitable tax burden, be it income tax, sales tax, property tax, or any tax. Further, with certainly, businesses (and individuals) could make long-term strategic financial decisions with a fuller understanding of long-term tax consequences and not fear a future tax law change will penalize them for their decision.

Although Ben Franklin lived through a historic period of change, today the rate of change in our world is more rapid. As taxing entities strive to preserve or adapt and grow their tax bases and fund their needs, they are faced with taxing a base that may not have existed just a few years before. Tax law certainly wanes. As an example, states still struggle today with issues of nexus and sales tax collection despite the Supreme Court decision in the Wayfair case. (South Dakota vs. Wayfair) The Covid-19 pandemic caused a seismic shift in the employee work location. Employers and taxing authorities find themselves now dealing with identifying which employees worked, determining where the employees worked, and quantifying how much tax to withhold. What previously was a single-state taxpaying business is now faced with multiple state tax laws to master and comply with. Finally, taxing authorities who struggled to chase down "under the table" cash transactions for years are now looking to find ways to identify, understand, and tax "over the table" crypto-currency transactions. Ben Franklin may have second thoughts if he were here today.

Regardless of the rate of change in the world, tax law changes have been a constant for as long as there have been taxes. Hardly a year goes by without Congress tweaking the tax code or tax courts making a defining tax judicial decision. This paper identifies one series of tax changes made in 2017, in the name of tax simplification, and ironically demonstrates how simplifying taxes may benefit taxpayers but decrease transparency.

Our system of taxation is unquestionably complex. For individuals, compliance with tax laws requires taxpayers to separate and disclose taxable income for multiple categories (e.g. wages, dividends, and capital gains). It also requires separate reporting of multiple tax deductions and credits (e.g. business expenses, charitable contributions, childcare credits). The complexity of complying with the Federal tax code is unquestionably burdensome and expensive for many Americans. However, for tax researchers, one output of this complex system is the volume of transparent granular data for analysis. Efforts to simplify taxes are a welcome relief to many taxpayers. But in some cases, simplification means the end of the availability of layers of detailed tax information for comparison, analysis, and research.

The purpose of this paper is twofold. The first purpose is to analyze select tax data available by state for a tax year before a sweeping 2017 tax law change. The paper will then reexamine the same tax attributes for a year after the 2017 tax law changes. This analysis will focus on a four-state slice of the Central Great Plains (Kansas, Nebraska, North Dakota, and South Dakota). The second purpose of the paper is to take the same tax attributes for the combined four-state region and compare them to the tax attributes for the entire United States for the period after the changes go into effect.

Tax Law Change: Individual Taxpayers

Individuals are required to pay, when due, Federal income tax annually on their taxable income. Taxable income includes most of what a taxpayer earns through work, investing, or one's retirement pay, etc. It excludes income from certain items specifically listed in the Internal Revenue Code such as interest on many municipal bonds, child support, gifts received and inheritances received. Taxpayers are also allowed to reduce their taxable income by two categories of deductions. The first category includes deductions "for" adjusted gross income (AGI). These deductions include expenses such as those related to taxpayer-operated businesses and farms, expenses related to rental or royalty-producing properties, contributions to taxpayer IRA accounts, certain investment losses, alimony paid in certain cases, and limited student loan interest. When looking at just AGI, the Tax Cuts and Jobs Act (TCJA) had only a negligible effect. (Huffer, 2019)

Taxpayers are also allowed to take certain deductions referred to as deductions "from" AGI. Deductions "from AGI" are also known as itemized deductions. These deductions "from" AGI include home mortgage interest, charitable contributions, state and local taxes paid, medical expenses, and certain miscellaneous deductions for items such as specific casualty losses. Taxpayers were allowed to either reduce their taxable income by the sum of these calculated itemized deductions, subject to limitations, or reduce taxable income by a standard deduction. In 2017, the standard deduction for a single taxpayer was $6,350. The standard deduction for two married taxpayers filing jointly was $12,700. Typically, taxpayers added up their itemized deductions and compared their total itemized deductions to their standard deduction, and took a tax deduction for the larger of the two amounts. In 2017, approximately 70% of taxpayers deducted the standard deduction and approximately 30% chose to itemize their deductions "from" AGI.

In addition to deductions "for" AGI and itemized deductions "from" AGI, through 2017, taxpayers were also allowed to deduct a sizable amount for each person they supported who qualified as a dependent. In 2017, this amount was $4,050 per dependent. This was known as an exemption. In general, taxpayers were allowed this $4,050 tax break for individuals (dependents) they supported during the tax year subject to a fairly complicated series of rules…rules that are beyond the scope of this paper.

In October 2017, the TCJA was signed into law. Most of the TCJA tax law changes began taking effect in 2018. These changes were meant to stimulate the economy and simplify the annual tax filing process for Americans. (Kumar, 2020) The primary means by which the TCJA was to simplify an individual's annual tax filing was by increasing the standard deduction to $12,000 from $6,350 for single individuals and to $24,000 from $12,700 for married filing jointly individuals. (Field, 2021) The TCJA also put new limitations on the deductibility of certain itemized deductions including state and local taxes, home mortgage interest, and miscellaneous items, thereby reducing their deductibility. The law also eliminated deductions for personal exemptions. The thought was, that if the standard deduction was increased substantially and the opportunity for itemized deductions was limited, more taxpayers would use the standard deduction on their returns. In this case, many taxpayers could avoid keeping track of itemized deductions and they wouldn't have to worry about whether or not they could get an exemption for a person they may have supported. (Viard, 2019) They would just take the standard deduction. The first-year result of implementing this law was a reduction in the percentage of tax filers itemizing deductions from approximately 30% in 2017 to approximately 11% in 2018. These changes although arguably useful in the simplification of annual income tax compliance, also eliminated a robust trove of data related to the deductions and exemptions eliminated. This data had historically been used in researching taxpayer activity at various income levels.

Tables 1-4, which follow, provide an analysis of key tax attributes for 2015 and 2019. The year 2015 was chosen to represent tax attributes for periods before the TCJA implementation in 2018. The years 2016 and 2017 were not used to avoid "frontload bias" (or actions taken or delayed in a year because of an impending or recent tax law change) in the years immediately before the tax law changes. The year 2019 was chosen to reflect tax attributes for periods after TCJA implementation. In this case, 2018 data was not used to avoid a "frontload bias" too. (Collar, Martin, 2021, p.9) 2019 was also the most current year with data released by the Internal Revenue Service at the time this research was completed. (SOI Tax Stats, 2022) Tables 1-3 analysis includes only the tax attributes of the four Central Great Plains states (North Dakota, South Dakota, Nebraska, and Kansas). Table 4 compares data from the four-state region to comparable national data.

Tax Attributes Analyzed

The Internal Revenue Service (IRS) annually publishes detailed summary information about individual taxpayer return tax filings. The information in tables 1-4 is all derivative from the 2015 and 2019 state-specific and total USA IRS tables. (SOI Tax Stats, 2022) Specific calculations of tax attributes included in these tables are listed and defined immediately below. Some of these attributes specifically relate to this paper's review of the effects of the TCJA implementation and some of them were chosen to identify similarities and differences between the various Central Great Pain states and the nation as a whole.

Filing Status: Tables 1-4 include calculated percentages of taxpayers filing for each permitted filing status (single or jointly) for the 2015 and 2019 tax years by state. The category denoted as "single returns", includes single taxpayers and married taxpayers filing as separate taxpayers. The "joint return"' category includes taxpayers who are married and filing jointly plus those filing as a surviving spouse. Finally, the percentage of taxpayers over 65 in all tax brackets is calculated and disclosed separately.

Percentage of Taxpayers Itemizing: The four tables include calculated percentages of the number of taxpayers choosing to itemize their tax deductions (as opposed to taking the standard deduction) for 2015 and 2019 by state.

Taxpayers with Self-employment Taxable Income: Tables 1-4 break out the percentage of taxpayers who included net positive self-employment income. This income could originate from a sole proprietorship or farm. It could also come through a taxpayer's ownership in a partnership, S-Corporation, or similar flow-thru entity.

Taxpayers Deducting Student Loan Interest: Taxpayers may be able to deduct student loan interest as a deduction "for AGI" on their tax return. However, not everyone paying student loan interest qualifies for the deduction. As an example, in 2019, the student loan interest deduction began to phase out at a taxpayer-modified AGI level of $70,000 for a single taxpayer. It was completely phased out when modified AGI reached $85,000. The phase-out was at $170,000 for married filing jointly taxpayers. Tables 1-4 calculate the percentage of taxpayers who were able to deduct student loan interest paid.

Taxpayers Claiming Earned Income Credit: The Earned Income Tax Credit helps low-to-moderate income taxpayers get a tax break, assuming they work and meet other criteria. The tables include a calculation of the percentage of taxpayers receiving the tax credit by state in 2015 and 2019.

Taxpayers Claiming Childcare Credit: Working taxpayers and student taxpayers may receive a tax break if they pay for the cost of daycare for their qualifying dependents. This taxpayer benefit decreases as the taxpayer income increases. The tables include a calculation of the percentage of taxpayers receiving the tax credit by state in 2015 and 2019.

Taxpayers by Income Level: This section of Tables 1-4 calculates the percentage of taxpayers in a given year in each of the ten ascending tax brackets. Adjusted gross income is used to determine which taxpayers are in which tax bracket.

Average Income Measures per Taxpayer: Tables 1-4 disclose five income categories for 2015 and 2019 by state. These subcategories are:

> **Earned Income**: This income is derived from taxpayers working as opposed to investing or receiving retirement earnings. Earned income includes wages, profit or loss from unincorporated owned businesses and farms, and partnership and S-Corp earnings.
>
> **Investment Income**: This income is derived from investing and takes the form of taxable interest income, dividend income, and net capital gains.

Retirement Income: Retirement income includes the following three types of income: income from taxable IRA withdrawals, taxable social security receipts, and income received from taxable pensions and annuities.

Adjusted Gross Income (AGI): In the calculation of a taxpayer's taxable income, AGI is a stopping point along the way. It includes all components of income that will be taxed but it only includes the effects of deductions "for" AGI such as certain IRA contributions, limited moving expenses, and limited alimony paid deductions. It does not include the effect of exemptions, itemized deductions, or the standard deduction which are "from AGI".

Taxable Income: This is the amount of taxpayer income that will be taxed. It is equal to AGI minus either itemized deductions or the standard deduction (and exemptions in 2015 only).

Average Itemized Deduction per Taxpayer: Tables 1-4 also disclose the three most common itemized deduction categories for 2015 and 2019 by state. These categories are:

State and Local Taxes: These are taxes deductible as itemized deductions including real estate, personal property, and state and local income tax or sales tax. For 2019, the amounts listed in the tables for state and local income tax include only taxes deductible "from" AGI. The TCJA limited an itemized deduction for state and local tax to a $5,000 limit for single taxpayers or a $10.000 limit for jointly filing married taxpayers. This limitation was part of the sweeping tax law changes implemented in 2018.

Home Mortgage Interest: This category includes only taxpayer interest paid which is deductible subject to limitations in the Internal Revenue Code. For 2019, the tables reflect the limitations in deductible home mortgage interest implemented in 2018's tax law change.

Charitable Contributions: These amounts include only the charitable contributions deducted "from" AGI as itemized deductions. It excludes those charitable contributions allowed as a deduction "for" AGI (subject to a $300 limit) beginning in 2018. It also reflects other tax law changes put in place for the first time in 2018 where applicable.

Average Income Tax per Taxpayer: Tables 1-4 calculate the average income tax per taxpayer. This includes the impact of all deductions and nonrefundable credits taken.

Average Income Tax Rate: This reflects the calculated average Federal income tax rate. It is calculated as the amount of calculated income tax divided by the calculated taxable income.

Table #1 Central Plains States Tax Attributes (2015)	Kansas	Nebraska	North Dakota	South Dakota	Plains States
Filing Status (Percentage of Returns)					
Single Returns	46.11%	47.37%	51.01%	48.46%	47.41%
Joint Returns	41.96%	41.29%	39.80%	41.13%	41.38%
Head of Household Returns	11.93%	11.35%	9.19%	10.41%	11.21%
Taxpayer Over Age 65 Returns	25.68%	24.04%	23.07%	26.26%	24.95%
Percentage of Taxpayers Itemizing	25.53%	27.70%	18.56%	17.17%	24.18%
Taxpayers with Self-Employment Income (% of Returns)	12.59%	12.99%	14.13%	14.89%	13.22%
Taxpayers Deducting Student Loan Interest (% of Returns)	9.86%	11.04%	13.13%	12.18%	10.93%
Taxpayers Claiming Earned Income Credit (% of Returns)	16.23%	15.38%	12.01%	15.30%	15.33%
Taxpayers Claiming Childcare Credit (% of Returns)	4.63%	6.17%	5.83%	6.32%	5.47%
Taxpayers by Income Level (Percentage of Returns)					
Under $1	1.35%	1.40%	1.41%	1.67%	1.42%
$1 to $10,000	15.05%	13.88%	11.87%	14.86%	14.29%
$10,000 to $25,000	20.34%	19.96%	17.52%	19.43%	19.76%
$25,000 to $50,000	24.11%	24.94%	24.64%	25.40%	24.60%
$50,000 to $75,000	14.09%	14.42%	14.80%	14.36%	14.31%
$75,000 to $100,000	9.33%	9.81%	10.89%	9.99%	9.75%
$100,000 to $200,000	12.08%	12.27%	14.76%	10.96%	12.31%
$200,000 to $500,000	2.96%	2.70%	3.26%	2.58%	2.87%
$500,000 to $1,000,000	0.47%	0.43%	0.59%	0.50%	0.48%
Over $1,000,000	0.21%	0.19%	0.26%	0.24%	0.21%
Average Income Measures per Taxpayer by Type					
Earned Income	49,877	49,380	54,504	47,170	49,923
Investment Income	5,382	5,303	5,162	6,175	5,440
Retirement Income	7,752	6,868	6,052	7,433	7,238
Adjusted Gross Income	62,479	61,498	69,081	61,482	62,857
Taxable Income	44,620	43,235	52,654	45,230	45,273
Average Itemized Deductions per Taxpayer					
State and Local Taxes per Taxpayer	9,425	11,088	6,865	6,098	9,432
Home Mortgage Interest per Taxpayer	6,574	6,050	7,856	7,383	6,582
Charitable Contributions per Taxpayer	6,735	5,687	7,338	9,808	6,708

Average Income Tax per Taxpayer	11,750	10,617	12,702	11,558	11,511
Average Effective Income Tax Rate	26.33%	24.56%	24.12%	25.55%	25.43%

Table #2 Central Plains States Tax Attributes (2019)	Kansas	Nebraska	North Dakota	South Dakota	Plains States
Filing Status (Percentage of Returns)					
Single Returns	48.20%	48.75%	51.18%	49.55%	48.91%
Joint Returns	40.32%	40.07%	39.15%	40.28%	40.10%
Head of Household Returns	11.48%	11.18%	9.66%	10.17%	10.99%
Taxpayer Over Age 65 Returns	27.15%	25.72%	25.27%	28.22%	26.64%
Percentage of Taxpayers Itemizing	7.71%	7.50%	5.52%	5.16%	7.03%
Taxpayers with Self-Employment Income (% of Returns)	12.39%	12.52%	13.57%	13.81%	12.77%
Taxpayers Deducting Student Loan Interest (% of Returns)	9.35%	10.36%	11.55%	11.47%	10.21%
Taxpayers Claiming Earned Income Credit (% of Returns)	14.79%	14.05%	11.82%	13.97%	14.10%
Taxpayers Claiming Childcare Credit (% of Returns)	4.32%	5.81%	5.77%	5.74%	5.14%
Taxpayers by Income Level (Percentage of Returns)					
Under $1	1.35%	1.59%	1.75%	2.12%	1.58%
$1 to $10,000	13.25%	12.18%	10.66%	13.77%	12.69%
$10,000 to $25,000	18.80%	17.56%	15.98%	17.07%	17.84%
$25,000 to $50,000	24.28%	25.33%	24.12%	24.92%	24.67%
$50,000 to $75,000	14.55%	14.86%	14.99%	14.57%	14.70%
$75,000 to $100,000	9.66%	9.92%	10.53%	10.05%	9.90%
$100,000 to $200,000	13.77%	14.42%	17.12%	13.52%	14.34%
$200,000 to $500,000	3.54%	3.44%	3.95%	3.16%	3.50%
$500,000 to $1,000,000	0.55%	0.50%	0.63%	0.57%	0.55%
Over $1,000,000	0.24%	0.21%	0.27%	0.25%	0.24%
Average Income Measures per Taxpayer by Type					
Earned Income	53,851	53,648	56,793	50,556	53,679
Investment Income	6,597	6,554	7,661	7,143	6,788
Retirement Income	9,225	8,384	7,797	9,174	8,795
Adjusted Gross Income	68,872	67,788	74,853	66,625	68,947
Taxable Income	51,365	50,419	57,586	49,560	51,572
Average Itemized Deductions per Taxpayer					
State and Local Taxes per Taxpayer	7,921	7,877	6, 7	6,077	7,538
Home Mortgage Interest per Taxpayer	10, 8	9,344	12,195	11,854	10,157

Charitable Contributions per Taxpayer	17,866	16,957	24,571	28,542	19,218
Average Income Tax per Taxpayer	11,625	10,769	12,121	11,119	11,361
Average Effective Income Tax Rate	22.63%	21.36%	21.05%	22.44%	22.03%

Observations on Tables 1-2.

Tables 1 and 2 are identically constructed. Table 1 represents data from 2015, the second year before the previously discussed sweeping tax code modification which caused the number of itemizing taxpayers to drop in favor of a new increased standard deduction. Table 2 represents 2019, the second year after the implementation of the tax law changes. Data was gathered as described above from IRS tables and separate calculations made for all four central Great Plains states. A fifth column is included in both Tables 1 and 2 with calculations based on a weighted average data set including all four states. The weighted average calculation has a columnar heading of “Plains States”’.

2015 in Review

A review of the 2015 data by individual state could cause one to see more things similar than dissimilar among the four plains states. A quick summary of 2015 differences follows.

> **Kansas:** Kansas has the highest percentage of taxpayers filing married filing jointly and head of household tax returns. It also has the greatest percentage of taxpayers claiming the earned income credit and leads the four-state region with the largest percentage of taxpayers in two of the three lowest tax brackets. It has the greatest average retirement income per taxpayer and its citizens pay the highest average Federal tax rate.
>
> **Nebraska**: Nebraska leads in two categories. It has the highest average amount for the itemized deduction of state income taxes paid and has the highest percentage of taxpayers itemizing.
>
> **North Dakota**: North Dakota leads in multiple categories. It has the greatest percentage of single taxpayers and the greatest percentage of taxpayers deducting student loan interest. It has the greatest percentage of taxpayers in the six highest tax brackets and the highest average home mortgage interest itemized deduction in our four-state region. It leads in earned income, adjusted gross income, taxable income, and average income tax paid.
>
> **South Dakota**: South Dakota has the greatest percentage of taxpayers over 65, the greatest percentage of taxpayers earning positive self-employment income, and the greatest percentage of taxpayers claiming the childcare credit. Like Kansas, it leads in the percentage of taxpayers in two of the four lowest tax brackets. It has the highest average charitable contribution itemized deduction and the highest level of average investment income in our four-state region.

2019 in Review

Taxpayer data and states’ relative placement within the region showed very little change in 2019 when compared to 2015 in many of the categories examined. An analysis of the changes and whether or not they can be attributed to tax law changes related to itemized deductions and the standard deduction follows Table 3 below.

Table #3 Central Plains States Tax Attributes (2019 minus 2015)	Kansas	Nebraska	North Dakota	South Dakota	Plains States
Filing Status (Change in Percentage of Returns)					
Single Returns	2.09%	1.38%	0.17%	1.09%	1.51%
Joint Returns	-1.64%	-1.22%	-0.64%	-0.85%	-1.28%
Head of Household Returns	-0.45%	-0.17%	0.48%	-0.25%	-0.22%
Taxpayer Over Age 65 Returns	1.47%	1.68%	2.20%	1.96%	1.69%
Percentage of Taxpayers Itemizing	-17.82%	-20.19%	-13.04%	-12.01%	-17.15%
Taxpayers with Self-Employment Income (% Change)	-0.20%	-0.48%	-0.56%	-1.08%	-0.45%
Taxpayers Deducting Student Loan Interest (% Change)	-0.51%	-0.68%	-1.58%	-0.71%	-0.71%
Taxpayers Claiming Earned Income Credit (% Change)	-1.44%	-1.33%	-0.19%	-1.33%	-1.24%
Taxpayers Claiming Childcare Credit (% Change)	-0.31%	-0.36%	-0.06%	-0.58%	-0.33%
Taxpayers by Income Level (Percentage of Returns)					
Under $1	0.00%	0.19%	0.33%	0.45%	0.17%
$1 to $10,000	-1.80%	-1.70%	-1.20%	-1.09%	-1.60%
$10,000 to $25,000	-1.54%	-2.40%	-1.54%	-2.37%	-1.92%
$25,000 to $50,000	0.17%	0.39%	-0.52%	-0.49%	0.07%
$50,000 to $75,000	0.46%	0.43%	0.18%	0.21%	0.39%
$75,000 to $100,000	0.33%	0.11%	-0.35%	0.06%	0.15%
$100,000 to $200,000	1.69%	2.15%	2.35%	2.56%	2.03%
$200,000 to $500,000	0.58%	0.74%	0.70%	0.58%	0.64%
$500,000 to $1,000,000	0.08%	0.07%	0.03%	0.07%	0.07%
Over $1,000,000	0.04%	0.02%	0.01%	0.01%	0.03%
Average Income Measures per Taxpayer by Type					
Earned Income	3,973	4,267	2,289	3,386	3,757
Investment Income	1,215	1,251	2,499	968	1,348
Retirement Income	1,473	1,516	1,746	1,741	1,557
Adjusted Gross Income	6,393	6,290	5,773	5,143	6,090
Taxable Income	6,745	7,184	4,931	4,330	6,299
Average Itemized Deductions per Taxpayer					
State and Local Taxes per Taxpayer	-1,505	-3,211	-858	-21	-1,893
Home Mortgage Interest per Taxpayer	3,434	3,294	4,340	4,471	3,575
Charitable Contributions per Taxpayer	11,131	11,270	17,233	18,733	12,510

Average Income Tax per Taxpayer	-125	153	-581	-439	-150
Average Effective Income Tax Rate	-3.70%	-3.20%	-3.08%	-3.12%	-3.40%

Observations on Table 3

The year 2019 was the second tax year following the sweeping income tax changes, most of which took effect in 2018. These changes included new limitations on the deductibility of certain itemized deductions such as state and local taxes and home mortgage interest, elimination of the tax break for personal exemptions, an increase in the standard deduction, and implementation of new lower income tax rates for most taxpayers. The effects of these changes are evident in Table 3.

The first observable change attributable to the 2018 tax law changes is the decrease in the number of taxpayers itemizing. While nationally the percentage of taxpayers itemizing dropped from approximately 30% to 11%, the Central Great Plains states saw a decrease from 24% to 7% of taxpayers itemizing. Nebraska's roughly 20% decrease was the greatest drop in the four-state region. South Dakota had the lowest nominal percentage of taxpayers itemizing in the four-state region in 2019 at 5.16%. Although not shown in the table, the four-state region in 2019 saw a 76% decrease (from 2015) in the number of taxpayers earning less than $100,000, who itemized. This compares to a 46% decrease (from 2015) in taxpayers earning over $100,000 who itemized. Historically, taxpayers in lower tax brackets were more likely than higher tax bracket taxpayers to take the standard deduction as opposed to itemizing. With the standard deduction increasing to $12,200 for single taxpayers in 2019 and $24,400 for married taxpayers filing jointly, even fewer lower bracket taxpayers itemized. The benefits of itemizing became even more of an upper-income tax bracket break.

The second less obvious change attributable to the 2018 tax law change is in the average amount of specific itemized deductions. An analysis of three of the affected itemized deductions follows.

State and Local Taxes: Before 2018, qualifying state and local taxes were deductible as itemized deductions virtually without limit. Beginning in 2018, the itemized deduction for state and local taxes was limited to $5,000 for single taxpayers and $10,000 for taxpayers married and filing jointly. Table 3 shows the decreased average state and local tax itemized deduction in all four states resulting, in part, from this new limitation. This decrease occurred even though the average taxpayer itemizing in 2019 is more likely to be in a higher tax bracket and pay more state and local income taxes than an itemizing taxpayer in 2015. The new limit on the state and local tax deduction was a major cause of this smaller average deduction.

Home Mortgage Interest: The new limitation on the deduction of home mortgage interest in 2018 was not as significant as the new limit on state and local taxes. Previously married couples filing jointly could deduct home mortgage interest on up to $1 million of home mortgage debt. Beginning in 2018, this limit is $750 thousand. Additionally, beginning in 2018 second mortgage interest could no longer be deducted to the extent the loan proceeds weren't used to buy, build, or substantially improve the taxpayer's home. This was not the case in 2015. Despite these new limitations, Table 3 shows marked increases in the 2019 deduction versus 2015 reflecting the shift, in part, to a greater percentage of itemizers being in the upper tax brackets, presumably with larger average mortgage balances.

Charitable Contributions: In 2015 charitable contributions could only be deducted up to 50% of a taxpayer's AGI. Additional more stringent 20% and 30% limitations were also in place in 2015 depending on what was donated and the type of organization it was donated to. In 2019, the 50%

limitation was increased to 60% of AGI. This relaxation of the deduction limitation and the shift, on average, to a greater percentage of itemizers being in the upper tax brackets caused in part the substantial increase in the average deducted charitable contribution in 2019 for the region. South Dakota saw an $18,733 increase in average charitable contributions in 2019, the greatest increase in the region. The loss of the ability for lower to middle-income taxpayers to deduct itemized charitable contributions was expected to result in an overall decrease in charitable contributions once the TCJA was in effect. (Sirrs, 2019). The changes were also expected to prompt "charitable bunching" whereby donors give in larger amounts but not every year allowing taxpayers to itemize in years of greater donation and utilize the standard deduction in other years. (Patel, 2018).

Table #4 Central Plains States and USA Tax Attributes (2015/2019)	Plains States 2019	USA 2019	**Plains States vs. USA**
Filing Status (Percentage of Returns)			
Single Returns	48.91%	50.45%	**-1.53%**
Joint Returns	40.10%	35.53%	**4.57%**
Head of Household Returns	10.99%	14.02%	**-3.04%**
Taxpayer Over Age 65 Returns	26.64%	24.66%	**1.99%**
Percentage of Taxpayers Itemizing	7.03%	10.92%	**-3.89%**
Taxpayers with Self-Employment Income (% of Returns)	12.77%	12.92%	**-0.15%**
Taxpayers Deducting Student Loan Interest (% of Returns)	10.21%	7.95%	**2.26%**
Taxpayers Claiming Earned Income Credit (% of Returns)	14.10%	16.85%	**-2.76%**
Taxpayers Claiming Childcare Credit (% of Returns)	5.14%	4.09%	**1.05%**
Taxpayers by Income Level (Percentage of Returns)			
Under $1	1.58%	1.52%	**0.07%**
$1 to $10,000	12.69%	12.49%	**0.20%**
$10,000 to $25,000	17.84%	19.45%	**-1.62%**
$25,000 to $50,000	24.67%	23.92%	**0.75%**
$50,000 to $75,000	14.70%	14.01%	**0.69%**
$75,000 to $100,000	9.90%	8.97%	**0.93%**
$100,000 to $200,000	14.34%	13.93%	**0.40%**
$200,000 to $500,000	3.50%	4.62%	**-1.12%**
$500,000 to $1,000,000	0.55%	0.74%	**-0.19%**
Over $1,000,000	0.24%	0.35%	**-0.11%**
Average Income Measures per Taxpayer by Type			
Earned Income	53,679	58,973	**-9.86%**
Investment Income	6,788	8,534	**-25.73%**
Retirement Income	8,795	9,362	**-6.45%**
Adjusted Gross Income	68,947	75,758	**-9.88%**
Taxable Income	51,572	58,430	**-13.30%**
Average Itemized Deductions per Taxpayer			
State and Local Taxes per Taxpayer	7,538	8,017	**-6.35%**
Home Mortgage Interest per Taxpayer	10,157	13,147	**-29.44%**
Charitable Contributions per Taxpayer	19,218	13,221	**31.21%**

Average Income Tax per Taxpayer	11,361	14,620	**-28.68%**
Average Effective Income Tax Rate	22.03%	25.02%	**-2.99%**

Observations on Tables 4.

Table 4 is structured the same as the prior tables. Table 4's first column includes the same calculated tax attributes analyzed for the region in Table 3 for 2019. Column two depicts the same tax attributes for the entire United States. A third column calculates the percentage difference between the first two columns. A brief analysis of variances unrelated and related to the tax law changes evaluated in this paper follows.

Variances Unrelated to the Studied Tax Law Changes: Several marked differences stand out when comparing the four-state Central Great Plains region to the nation as a whole. The four-state region has a substantially greater percentage of taxpayers filing jointly as married couples and a greater percentage of over age 65 taxpayers filing when compared to the nation. The region also has a greater percentage of taxpayers deducting student loan interest and claiming the childcare credit. The nation as a whole has a greater percentage of taxpayers in the upper tax brackets and higher average amounts or all income components evaluated in this paper.

Variances Related to Tax Law Changes: As noted earlier, approximately 11% of the nation's taxpayers itemized while approximately 7% of the region's taxpayers itemized in 2019. Regarding average itemized deductions, state and local taxes deducted at the national level were higher than in the region, reflective of the higher income levels in the nation (and resulting higher state tax) and possibly a lower local tax burden in the region. The national average home mortgage interest deduction was also greater than the region, potentially a result of higher home prices nationally and lower average levels of average mortgage debt in the region. Charitable contributions in the region were substantially higher than at the national level. This variance and all the itemized deduction levels are areas suitable for future research.

Conclusion

Income tax calculations are complex. The 2017 Tax Cuts and Jobs Act strove to reduce the complexity by making it more financially advantageous for most taxpayers to use the standard deduction as opposed to the more detailed process of itemizing deductions when completing their income tax returns. Nationally this drove an approximately 19% decrease in taxpayers itemizing while the Central Great Plains states saw an approximately 17% decrease. The TCJA also placed new limitations on the deductibility of certain itemized deductions such as state and local taxes, charitable contributions, and home mortgage interest. These tax law changes also resulted in a substantial increase in the average itemized deduction taken for both home mortgage interest and charitable contributions following the tax law change. This is due in large part to the fact that the ability to itemize is now more than ever a beneficial tool for mostly the upper tax bracket taxpayers. And these upper bracket taxpayers, on average pay greater sums for home mortgage interest and charitable contributions than those in lower brackets. Lower tax bracket taxpayers will be more likely than ever to find it beneficial to take the now larger standard deduction.

The results of an analysis of the Central Great Plains region's average level of itemized deductions revealed an average 2019 itemized deduction for home mortgage interest deducted of $10,157 compared to $6,582 in 2015. The comparable 2019 national average home mortgage interest deduction was $13,147. An analysis of the Central Great Plains region for charitable contributions found the average deduction in 2019 to be $19,218 compared to $6,708 in 2015. This sizeable increase is even more profound when compared to the national average charitable contribution in 2019 which was only $13,221. Itemized deductions for state and local taxes decreased in 2019 in both the Central Great Plains region and nationally likely due to the new $5,000 and $10,000 limitations imposed by the TCJA. These changes in deductions are fertile ground for additional research.

With the implementation of the TCJA, the tax law changes prompted a modest level of tax simplification. Such tax law changes create limited nonrecurring opportunities to examine the effects on taxpayers of the tax law changes. This paper explores that opportunity. In the case of TCJA, which resulted in a marked decrease in taxpayers itemizing, we also get one last chance to analyze data from an itemizing population that encompasses 30% of taxpayers nationally and 24% percent regionally before these percentages slip to 11% and 7% respectively. As such, this paper’s analysis of regional and national taxpayer behavior during this period of change adds to the tax body of knowledge but also provides the basis for further research.

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