REPORT

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WHAT HAPPENED IN KANSAS: THE 2012 TAX REFORM, THE ECONOMY, AND LESSONS FOR US ALL

By Dennis W. Jansen

KEY FINDINGS

- In 2012 Kansas enacted tax reform that reduced state income tax rates and eliminated all state taxes on pass-through income. Importantly, despite initial proposals this tax reform was not accompanied by major reductions in state spending.
- Governor Brownback claimed that this tax reform would add 22,000 additional jobs and lead to an influx of people into Kansas, and that the elimination of taxes on pass-through income would encourage business formation.
- At the time of the reform, the Kansas economy was growing at a relatively slow pace. This continued to be true after the reform. Aggregate measures of employment, personal income, population changes, and real GDP provide little evidence that the tax reform had a significant positive or negative impact on the Kansas economy.

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- Kansas's relatively slow growth before and after the reform is related to the basic structure of the Kansas economy. Kansas is perhaps unlucky in that its industry mix is not strong in those areas of the economy that experienced the most growth over the 2012–2017 period.
- In assessing the tax reform, it was not the disaster for the Kansas economy that is sometimes asserted, but neither did it spur growth in Kansas employment, population, or measures of aggregate output.
- The tax reform was a disaster in one area: it quickly created a state fiscal crisis, as the tax cuts were not accompanied by spending cuts. Threatened with unbalanced budgets, the Kansas government quickly acted first to raise sales tax rates in 2015 and then to largely undo the tax reforms in 2017.
- The stated intent of the pass-through exemption was to provide a strong incentive for businesses to start or to grow. However, this incentive needed time to work: The more immediate impact of the pass-through exemption was for individuals to alter their tax filings and their business structure to take advantage of the exemption, reducing state tax revenue without immediately increasing economic activity.
- The Kansas state government was overly optimistic with respect to revenue forecasts from 2013 through 2015, forecasting higher revenues than actually materialized. This is especially noteworthy because these revenue forecasting mistakes were not being made during a recession, but instead during a period of (slow) economic growth.
- In the end, the Kansas tax reform of 2012 was not so much repealed as it was itself subject to a series of reforms. Compared to the pre-reform year of 2011, Kansas today has mostly lower marginal tax rates and a higher sales tax rate.
- The real test is whether, going forward, Kansas has higher growth than it would have had with the pre-2012 tax structure. The intervening years are a lesson in how not to go about reforming the tax system in a state, and about the perils of tax cuts without accompanying spending cuts.

INTRODUCTION

Kansas cut state taxes in 2012, reforming the state's individual income tax and making a major change in the treatment of business income. Before the reform, Kansas's individual income tax had three tax brackets with marginal tax rates ranging from 3.5% to 6.45%. The tax rate was 3.5% on income up to $15,000, then 6.25% on income over $15,000 but below $30,000, and 6.45% on income over $30,000. The 2012 reform created two tax brackets with a tax rate of 3% on incomes ranging up to $15,000 and 4.9% on incomes over $15,000. There was also an increase in the standard deduction, and some tax credits were eliminated. But the big item in the Kansas reform of 2012 was the elimination of taxes on pass-through net income. This change basically allowed many businesses to avoid taxes on business income.

The Kansas reform of 2012 and the subsequent partial reversal in 2017 received considerable attention. The governor of Kansas during this period, Sam Brownback, championed the 2012 reform as an experiment in the benefits of tax cuts for economic growth. The experiment was met with enthusiasm by proponents of tax and spending cuts. The publicity surrounding the reform included a statement by economists Arthur Laffer and Stephen Moore that "cutting taxes can have a near immediate and permanent impact, which is why we have advised . . . Kansas . . . to cut their income tax rates if they want the most effective immediate and lasting boost to their state economies" (Laffer & Moore, 2012) To be fair, Laffer and Moore also talked about spending cuts, but they emphasized cutting taxes and eliminating income taxation to increase economic growth and enhance economic efficiency. Governor Brownback emphasized jobs and economic growth (Cooper, 2012). When the reforms were reversed in 2017, there was cheering from those who opposed the cuts in taxes and spending, and this too was accompanied by hype claiming that the results in Kansas demonstrated the abject failure of supply-side economics.[1] Moreover, the apparent similarity between some of the features of the Kansas tax reform and some of

[1] The *New York Times* editorial board wrote that "Kansas has finally turned on Gov. Sam Brownback in his disastrous five-year experiment to prove the Republicans' "trickle down" fantasy can work in real life—that huge tax cuts magically result in economic growth and more, not less, revenue." See "Kansas rises up against the trickle-down con job," *The New York Times*. June 9, 2017. Accessed July 16, 2019 at: https://www.nytimes.com/2017/06/09/opinion/kansas-tax-cuts-sam-brownback.html.

the features of the Tax Cuts and Jobs Act of 2017 (the so-called Trump tax cuts) led many to argue that the reversal in Kansas was a precursor to what the U.S. government would experience after the 2017 federal reforms. In any case, partisan interests in the Kansas experience and lessons for the rest of the country have kept attention on the Kansas reform and its aftermath.

This essay provides an overview of the Kansas reform of 2012, as well as an overview of the state of the Kansas economy in the years leading up to the reform. Kansas is looked at both absolutely and relative to the rest of the country and to Kansas's neighboring states. The experience of the Kansas economy and the fiscal situation of the Kansas state government is described from the date of the initial reform until the rollbacks in 2017. Finally, there are some broad conclusions and lessons learned for the rest of us.

A major thesis of this paper is that the economy of Kansas was growing at a relatively slow pace both before and after the tax reform of 2012. Aggregate measures suggest that the tax reform had little positive or negative impact on the Kansas economy. Confounding issues have made it difficult to measure the precise impact of the 2012 tax reform on the Kansas economy; differentiating the impact of tax changes from the impact of other events is challenging. One significant confounding factor was a major increase in Kansas's sales taxes in 2015. Further, while the tax cuts lowered state government revenue, state government spending was not reduced proportionally. As a result, the tax reforms caused a fiscal problem for the Kansas state government—one that was ultimately solved by reversing several aspects of the initial reform. There is some evidence that the fiscal difficulties caused by the tax reform were due to excessive optimism on the part of the state government with respect to growth in tax revenue after the reform. Basically, the reforms "failed" because Kansas failed to cut spending along with reducing tax revenue, which led to unacceptable budget deficits that were closed by raising taxes.

INTERPRETATIONS IN THE PRESS AND AMONG ACADEMICS

The Kansas tax reform of 2012 was hailed by some as an experiment in "supply side economics" or in "trickle-down economics," and its subsequent "repeal" has been described as a repudiation of the same. The headlines include: "Kansas Provides Compelling Evidence of Failure of 'Supply-Side' Tax Cuts" (Mazerov, 2018), "The Great Kansas Tax Cut Experiment Crashes and Burns" (Gleckman, 2017), and "Kansas 'Real Live Experiment' in Trickle-Down Tax Cuts" (Hendricks, 2017).

These articles and others like it proclaimed the failure of the Kansas tax reform and claimed it as evidence, if not proof, that tax cuts do not lead to increased economic activity. Critics point to the failure of the Kansas economy to outperform its peers and the national average since tax reform passed. They also point to the budget exigencies in Kansas, including large spending cuts required by the decline in revenue.

Others were less negative. Headlines highlighting a more positive assessment include: "The Great Kansas Tax Cut Experiment Is Over. What Are the Takeaway Lessons?" (Pethokoukis, 2017) and "What was Really the Matter with the Kansas Tax Plan" (Kansas Policy Institute, 2017). These articles argue that tax cuts increase economic activity but only gradually; the effects take time and the initial impacts might be small, but the cumulative long-term impact is what matters. They also argue that cuts in spending need to accompany tax cuts. Interestingly, the Kansas Policy Institute emphasizes the need for a "reliable revenue estimating process." That would certainly help ensure that legislators understand the implications of what they are doing.

Academic studies looking specifically at the Kansas tax reform of 2012 have generally found no statistically significant impact on the economy. For instance, Rickman and Wang (2018) find no increase in economic growth following state tax cuts in Kansas in 2012 and in Wisconsin in 2011. Turner and Blagg (2018) find no impact of the 2012 Kansas tax reform on employment growth. McCloskey (2018) finds no overall impacts of the 2012 Kansas tax reform on employment, real gross state product, or the number of business establishments in Kansas.

The above studies look only at the Kansas (one includes Wisconsin) tax reform. Studies looking at these issues across a broader range of states and broader set of reforms find more positive results. Ljungqvist and Smolyansky (2016) look at corporate tax changes in U.S. states and find that employment increases and the economy grows following corporate income tax cuts during recessions,

Figure 1

Kansas Tax Rates and Brackets over Time (Married Filing Jointly)

Tax rates were reduced for 2012, then increased for 2018, but remain below the 2011 rates.

Source: Sources: Kansas Department of Revenue, Annual Reports for 2012 (https://www.ksrevenue.org/pdflar12complete.pdf), 2013 (https://www.ksrevenue.org/pdflar13complete.pdf), and 2017 (https://www.ksrevenue.org/pdflar17complete.pdf).

although not necessarily in non-recessionary times. Ferede and Dahlby (2012) examine corporate income tax cuts in Canadian provinces and find increased growth after a cut in the tax rate. On the other hand, Gale, Krupkin and Rueben (2015) find no significant impact of U.S. state tax cuts on economic growth, although high marginal tax rates did seem to lead to a small reduction in business formation. McBride (2012) provides a literature review of twenty-six papers published in academic journals going back to 1983, and all but three (and every study from 1998 to 2012) found a negative impact of taxes on economic growth. For those distinguishing among types of taxes, corporate income taxes were found to be the most harmful to growth, followed by income taxes, then consumption taxes, then property taxes. In this sense the results from Kansas are anomalous and certainly point to problems in the enactment of the Kansas reform more than they lead to universal conclusions about the efficacy of tax cuts.

THE TAX REFORM

As already mentioned, the Kansas reform cut personal income tax rates and eliminated taxation of pass-through income. What is pass-through income? Businesses organized as partnerships, sole proprietorships, Subchapter S corporations, or limited liability companies (LLCs) do not pay corporate income tax. Instead they file a business tax return in which they calculate their net business income—basically their accounting profits—and then, for tax purposes, these business owners report their profits as income on their personal income tax form. At the federal level, these companies would report their business profits

on their personal tax form 1040. This means that the taxes paid on this form of business income are personal income taxes. This income is called *pass-through* income because the business's net profits are "passed through" to the individual's income tax form and then taxed as individual income. There is no separate business income tax collected on this income. The various businesses whose income is taxed in this way are called pass-through entities.

In contrast, many corporations file a business tax return and pay a corporate income tax on their net income. The corporation may then disburse some of the after-tax net income to shareholders as dividends. In this case the shareholders are typically required to report those dividends as personal income, and this income is then subjected to some form of personal income taxation. In this way corporate profits are often taxed twice: once as corporate income and then, when distributed as dividends, as individual income.[2] In contrast, pass-through income is taxed once as individual income.

Kansas's tax reform of 2012 took the major step of eliminating the state's personal income taxes on pass-through income. Essentially, Kansas allowed businesses reporting pass-through income to avoid all state income taxation. No other state fully exempts such income from taxation.

The Kansas reform was partly but not totally reversed by legislation passed in 2017 and fully taking effect in 2018. The pass-through provision was eliminated, and individual income tax rates were set at 3.1% for income up to $30,000, 5.25% for income over $30,000 and up to $60,000, and 5.7% for income over $60,000. These rates are lower than the pre-reform tax rates, but higher than the rates set for 2013 in the 2012 reform.[3] Figure 1 graphs the changes in marginal tax rates against personal income. The original pre-reform tax rates in 2012 are included along with the reformed rates in 2013, showing the large decline in the upper bracket, and the "reversal" in 2018 with the upper tax bracket falling between the pre-reform 2012 rates and the reform rates of 2013.

BACKGROUND ON THE KANSAS ECONOMY PRE-REFORM (2000–2011)

To understand the Kansas reforms, it is important to consider the economic situation in Kansas pre-reform. First, consider statistics on real personal income, personal income per capita, and population as compiled by the U.S. Bureau of Economic Analysis (BEA). Real personal income is the inflation-adjusted value of total personal income of all persons in the state. It is one measure of aggregate economic performance, focusing on income. In 2011, real personal income in Kansas was $133.3 billion (in 2017 dollars). Surrounding states varied greatly, from $91.0 billion in Nebraska to $250.3 billion in Missouri. Colorado was near Missouri at $242.6 billion, and Oklahoma at $161.1 billion.

The absolute levels are important in some ways, but growth matters, as do levels of per capita income. Looking at the growth of real personal income is complicated by the vastly different levels across states, so Figure 2 presents the relative growth rates of neighboring states from their starting values in the year 2000. Each state's growth in real personal income from 2000 to 2011 is applied to a common initial value of 100, so that the relative growth rates can be viewed on the same scale. As is clear in Figure 2, growth rates vary across states, and the state with the largest real personal income in 2011—Missouri—was not the state that grew the fastest over this time period. In fact, Oklahoma grew the most, with a real personal income in 2011 that was 36% larger than in 2000. Nebraska was second with 28% growth between 2000 and 2011. Kansas was third, 23% larger than in 2000. Colorado and Missouri were the laggards, with growth of 16% and 12% respectively over these 11 years. By way of comparison, real personal income in the United States grew by 18% over this time period.

Importantly, the United States experienced a massive recession, the so-called Great Recession, from December 2007 to June 2009. It is apparent that this national recession was experienced in these states to various degrees, with large decreases in real personal income in Oklahoma, but also in Kansas and Colorado and to a lesser extent Nebraska and Missouri. While Kansas had grown rapidly from 2004 until 2008, almost 20% in a four-year period,

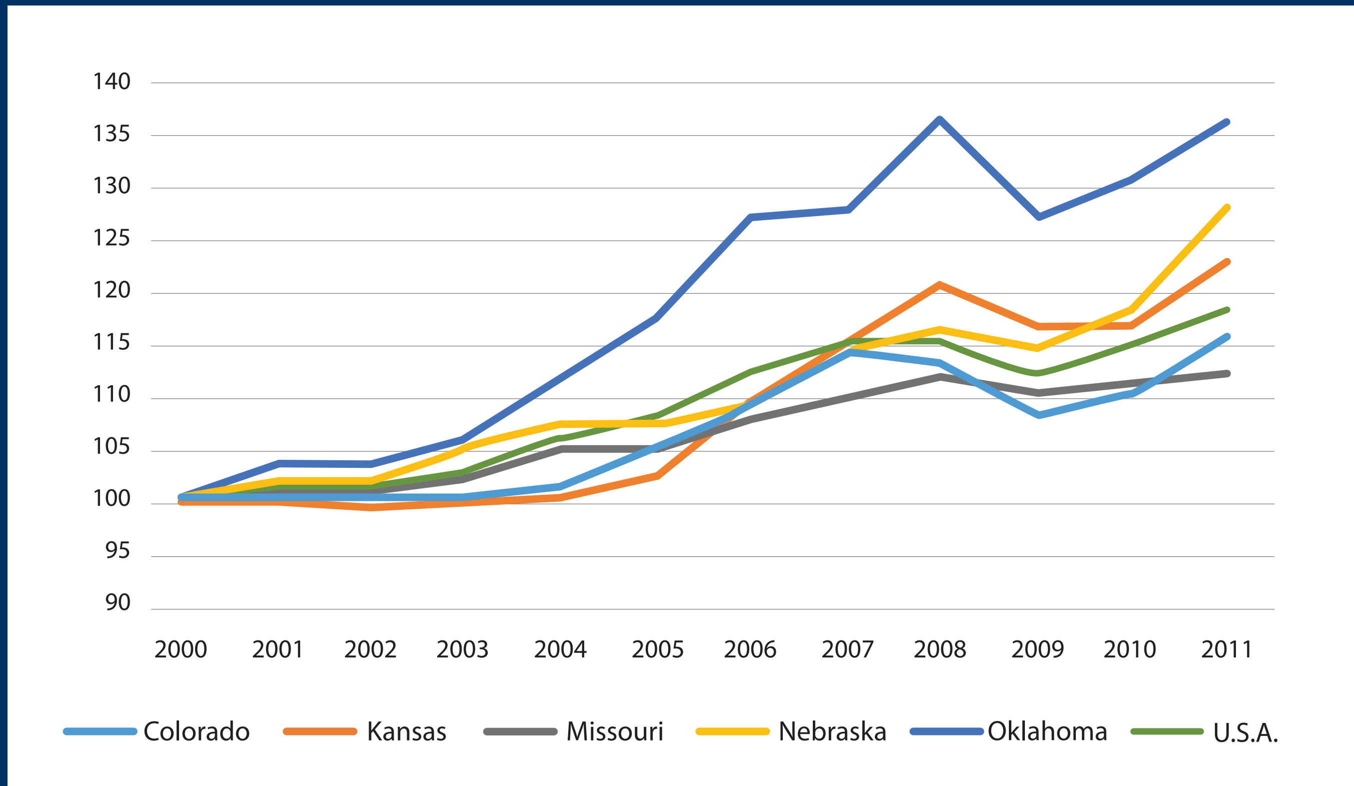
[2] In Kansas the corporate income tax rate is 4% on income up to $50,000, with a 3% surcharge on incomes over that amount. See "Department of Revenue Annual Statistical Report," State of Kansas, Fiscal Year Ending June 30, 2017. Accessed July 17, 2019 at: https://www.ksrevenue.org/prannualreport.html.

[3] For current rates see https://www.ksrevenue.org/taxrates.html. For pre-reform rates, see Daniel J. Mitchell. "Three lessons from the tax defeat in Kansas." Cato Institute, June 22, 2017. Accessed July 16, 2019 at: https://www.cato.org/blog/three-lessons-tax-defeat-kansas.

Figure 2

Real Personal Income by State 2000–2011 (All values normalized to 100 in 2000)

Inflation-adjusted personal income in Kansas was higher than in most neighboring states by 2011.



Source: Bureau of Economic Analysis for personal income and population by state and USA (https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1); FRED Economic Data, FRB-St. Louis, for the Bureau of Labor Statistics for CPI, annual average (https://fred.stlouisfed.org/series/CPIAUCSL#0); and author's calculations.

it had stagnated after the Great Recession so that in 2011 its real personal income was only about 3% larger than it had been three years earlier.

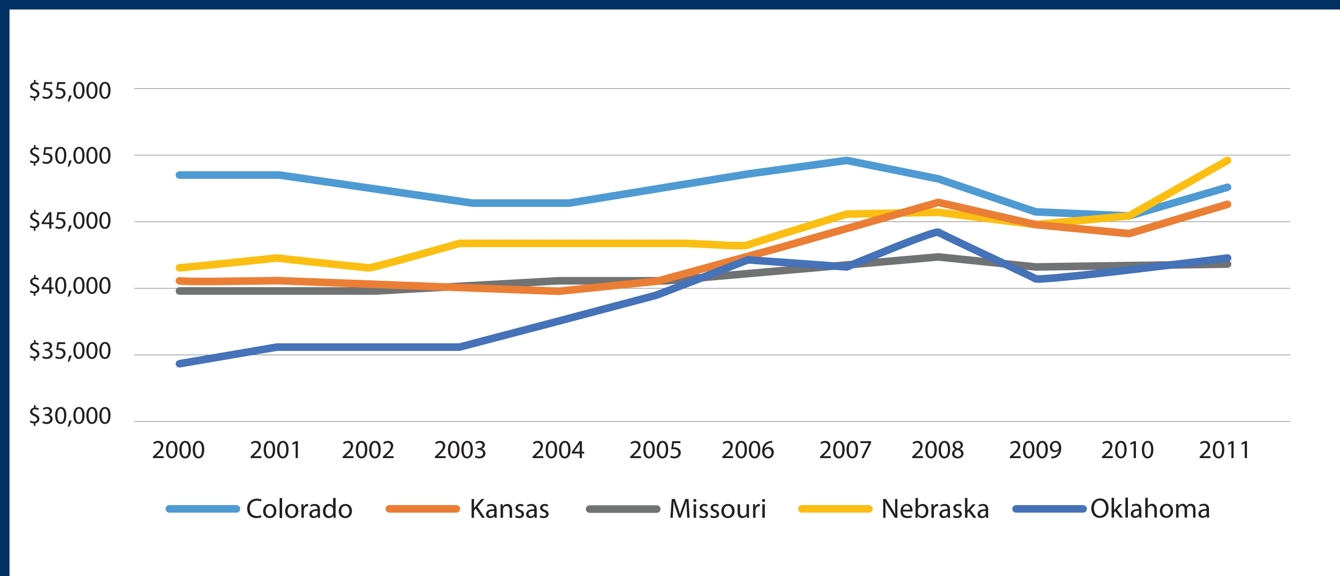
Real personal income is an aggregate measure of economic performance that captures two elements. One element is population, and one is real personal income per capita. Population obviously contributes to total economic size, while measures of per capita income provide a view of the income earned by any one individual in the economy. Growth in per capita income is what can make a single individual feel like their situation is improving. However, while individuals might care most about per capita incomes, governments may also be concerned with the growth in the size of the economy, since a larger economy provides more resources for a government to tap via taxation.

Kansas had a per capita personal income in 2011 of $46,462 (measured in 2017 dollars), which ranked 23rd in the nation. The national average per capita income level in 2011 was $46,567, just over the Kansas number. In terms of surrounding states, per capita personal income values ranged from a high of $49,400 in Nebraska to a low of $41,643 in Missouri, with Colorado at $47,412 and Oklahoma at $42,550 (Figure 3). In many ways Kansas was well described as right in the middle of the income distribution among local states and nationally (Bureau of Economic Analysis, 2018).

Figure 3

Per Capita Real Personal Income, Kansas and Neighboring States, 2000–2011 (in 2017 dollars)

Inflation-adjusted per-capita personal income in Kansas was comparable to that in neighboring states.



Source: Bureau of Economic Analysis for personal income and population by state and USA. (https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1); FRED Economic Data, FRB-St. Louis, for the Bureau of Labor Statistics for CPI, annual average (https://fred.stlouisfed.org/series/CPIAUCSL#0); author's calculations.

In terms of growth rates, Kansas experienced an increase in per capita real personal income of 15.3% over 11 years. This compares to Oklahoma at 23.9%, Nebraska at 19.2%, Missouri at 4.4%, and Colorado at –2.1%. In the United States overall, per capita real personal income increased 6.7% over this time period. Clearly, the experiences of this collection of states were varied, and Kansas was doing well with respect to its neighbors and the rest of the nation.

That said, Kansas's growth years were 2004 through 2008. The Great Recession had taken its toll, and Kansas's per capita real personal income in 2011 had just returned to $46,462, only $68 higher than its 2008 value of $46,394.

Finally, in terms of population, Kansas was a relatively small state. Its population in 2011 was 2,868,756, placing it 33rd in the nation. Its population was larger than that of Nebraska, whose population was 1,841,641, but smaller than that of Oklahoma (3,785,232), Colorado (5,116,411), and Missouri (6,010,280). The smallest state in the union in 2011 was Wyoming with 567,602 residents, and the largest California with 37,672,654 people.

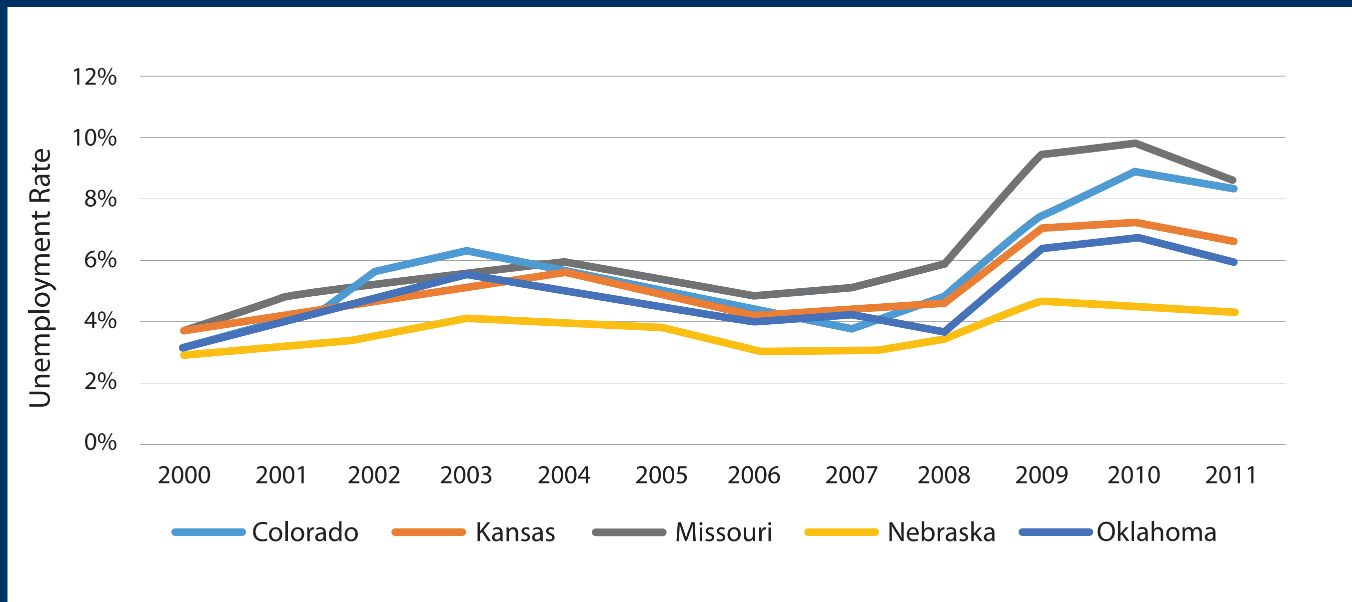
Kansas's population had been growing slower than that of the rest of the nation, and slower than that of surrounding states. The nation's population grew 10.5% between 2000 and 2011, while over this same period Kansas's population grew 6.5%. Kansas grew more slowly than any of its neighbors: Over this period the population of Missouri grew 7.2%, Nebraska 7.5%, Oklahoma 9.6%, and Colorado 18.3%.

Importantly, 2011 was only a few years after the end of the Great Recession. The Great Recession ended in June 2009, but recovery was slow, and unemployment rates tend to remain high even after recessions end. There was much talk about the jobless nature of this recovery, and many states were only beginning to see unemployment

Figure 4

Unemployment Rates in Kansas and Neighboring States, 2000–2011

The unemployment rate in Kansas was typically in the middle of the distribution of unemployment rates when examined alongside those of neighboring states.



Source: Bureau of Economic Analysis for unemployment rate by state and year. (https://www.bls.gov/lau/rdscnp16.htm).

rates falling from the peak levels reached after the Great Recession. The national unemployment rate peaked at 9.9% in 2009 before falling gradually, and it was still 8.5% in 2011.

Kansas's unemployment rate was 6.5% in 2011, down from the 2010 peak of 7.1%. Neighboring states were facing similar patterns but with varying levels of unemployment. Missouri's unemployment rate was 8.5% in 2011, down from its peak of 9.6% the prior year. Colorado was at 8.4%, down from a peak of 8.7%. Oklahoma fared somewhat better, with an unemployment rate of 5.9% in 2011, down from a peak of 6.8%. Finally, Nebraska had an unemployment rate of only 4.4% in 2011, and its peak was 4.6%, reached in 2009 and 2010. Thus, Kansas had an unemployment rate that was around the median of the local area states, and relatively low compared to the rest of the country. The cyclical pattern of unemployment rates, and the large increase during and especially after the Great Recession, is evident in Figure 4.

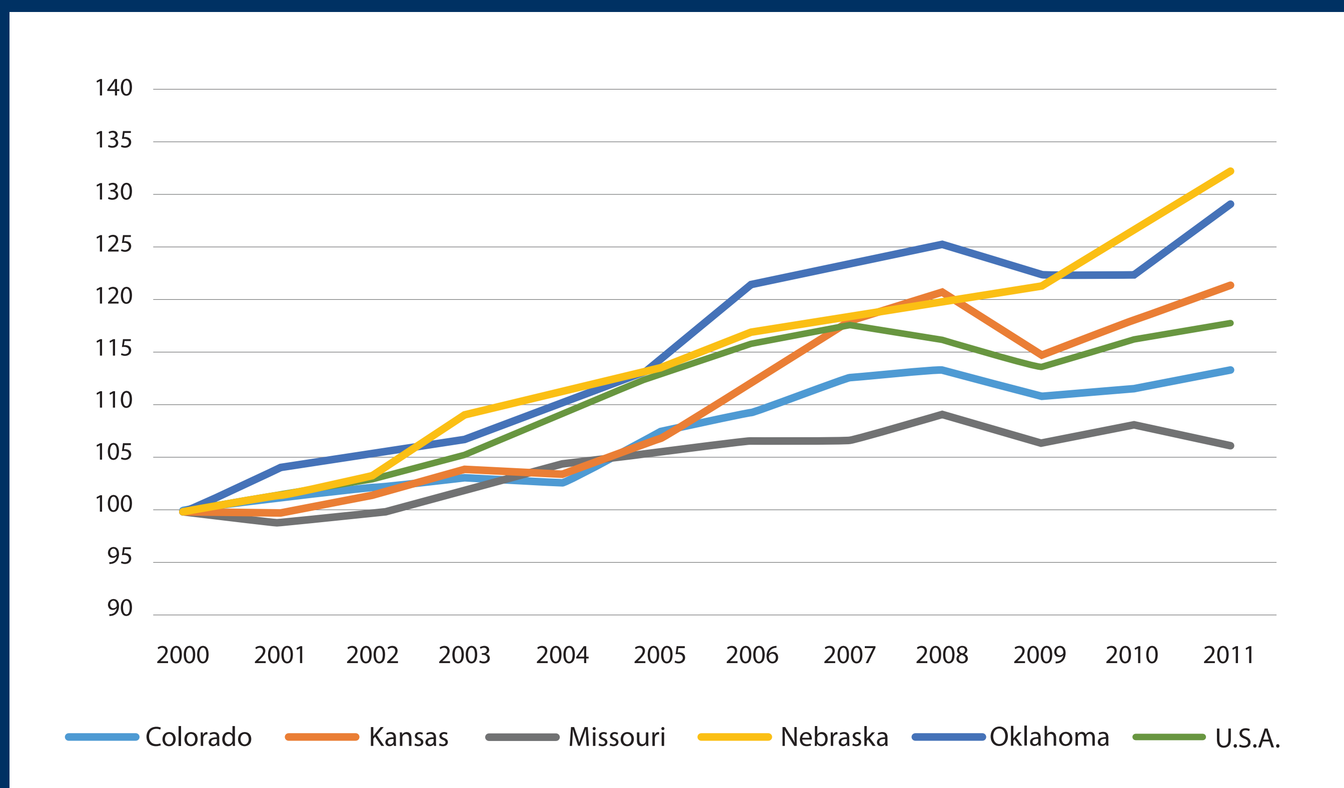
The last series we will plot is Real GDP (RGDP). RGDP is an often-used summary statistic for how countries are doing, and it can play that same role with states. RGDP is in real terms and thus controls for the impact of inflation. Kansas RGDP was $130.5 billion in 2011 (reported by the BEA in 2009 dollars), compared to values as low as $94.6 billion in Nebraska and as high as $252.3 billion in Colorado. Missouri was close to Colorado, at $250.0 billion. Oklahoma was ahead of Kansas, at $151.3 billion.

As with real personal income, the growth rate may be as important as the level. Figure 5 shows how RGDP in these five states and in the entire country has changed from its starting point in 2000. Just as with real personal income in Figure 2, Figure 5 is drawn showing the growth rate of RGDP from 2000 to 2011 as increases from a base value of 100 in 2000. Kansas ends up with a value of 121.3 in 2011, indicating that Kansas's overall level of RGDP increased by 21.3% in the eleven years from 2000 to 2011. This is third behind Nebraska (32% growth) and

Figure 5

Real GDP by State 2000–2011 (All values normalized to 100 in 2000)

Kansas was enjoying faster growth in real GDP than the United States as a whole and was in the middle of the pack relative to neighboring states.



Source: Bureau of Economic Analysis for real GDP by state, (https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1).

Oklahoma (29% growth), and ahead of Colorado (13%) and Missouri (6%). For comparison, U.S. RGDP grew 18% during this period. Again, Kansas is not shown to be lagging behind its neighbors, nor the rest of the country.

Figure 5 illustrates the varied experiences of different states over this time period, as well as some common features. All states show evidence of a downturn during the Great Recession, with some variation in timing and the depth of the effect. Kansas experience a particularly sharp downturn between 2008 and 2009. The states show differences in growth rates, with Missouri growing particularly slowly, and both Nebraska and Oklahoma growing relatively quickly over these years. The expansion in Kansas between 2004 and 2008 is obvious.

BACKGROUND ON THE KANSAS FISCAL SITUATION PRE-REFORM

The previous section outlined the status of the Kansas economy prior to the tax reforms of 2012, both absolutely and relative to its four neighboring states. In many ways Kansas fell in the middle of the pack relative to its neighboring states and the nation at large in terms of economic performance. Kansas was by several measures doing better than its close rival, Missouri. Given the overall economic picture, what was the status of the Kansas government's revenues and expenses before the reform?

Table 1: **Real (Inflation-adjusted) Kansas Revenues Over Time, Billions of 2015 Dollars**

Kansas's inflation-adjusted tax revenue fell in the aftermath of The Great Recession and did not recover until 2015.

Year	Total Revenue	Total Revenue: Own Sources	General Revenue: Own Sources	Total Taxes	Total Taxes/ Total Revenue	Total Taxes/ Own-Source Revenue
2000	$14.3	$11.0	$8.5	$6.7	46.6%	60.7%
2001	$11.7	$8.1	$8.5	$6.7	57.2%	82.4%
2002	$12.8	$8.8	$8.2	$6.3	49.6%	71.7%
2003	$13.4	$9.2	$8.4	$6.5	48.1%	70.2%
2004	$13.9	$10.2	$8.7	$6.6	47.7%	65.1%
2005	$15.2	$11.3	$8.9	$6.8	45.0%	60.4%
2006	$15.9	$12.1	$9.6	$7.4	46.3%	61.2%
2007	$17.8	$14.2	$10.8	$7.9	44.2%	55.4%
2008	$14.9	$11.1	$11.0	$7.9	52.9%	71.3%
2009	$12.9	$8.7	$10.8	$7.4	57.4%	85.4%
2010	$18.0	$13.0	$10.4	$7.1	39.3%	54.5%
2011	$19.6	$14.4	$10.6	$7.2	36.6%	49.8%
2012	$16.7	$12.4	$11.3	$7.7	46.0%	61.6%
2013	$18.3	$14.4	$11.6	$7.8	42.3%	53.8%
2014	$19.0	$15.1	$11.4	$7.3	38.6%	48.8%
2015	$17.8	$13.9	$12.2	$7.9	44.2%	56.8%

Source: Urban Institute's Tax Policy Center for real total revenue, own source revenue, own source general revenue, and total taxes (https://slfdqs.taxpolicycenter.org/pages.cfm); author's calculations.

It seems that government finances were in reasonably good shape. It can be difficult to know the minute details of individual state government finance, especially because so much depends on federal policy. In fact, for all states total state government revenues consist of both revenues raised within the state, referred to as own-source revenues, and funds received from the federal government. The latter is substantial and variable. Further, own-source revenues at the state level include taxes, but also a substantial component that comes from non-tax sources, such as fees for services and user charges. For non-tax sources, examples include hunting and fishing licenses, driver's license fees, park entry fees, occupational licensing fees, and a host of other charges for state services. To put this in perspective, in real 2015 dollars, Kansas's total state revenue in 2015 was $17.8 billion. Of this, its own-source revenue was $13.9 billion, or 78% of the total. Its total tax revenue was $7.9 billion, amounting to 57% of own-source revenue and 44% of total revenue.[4]

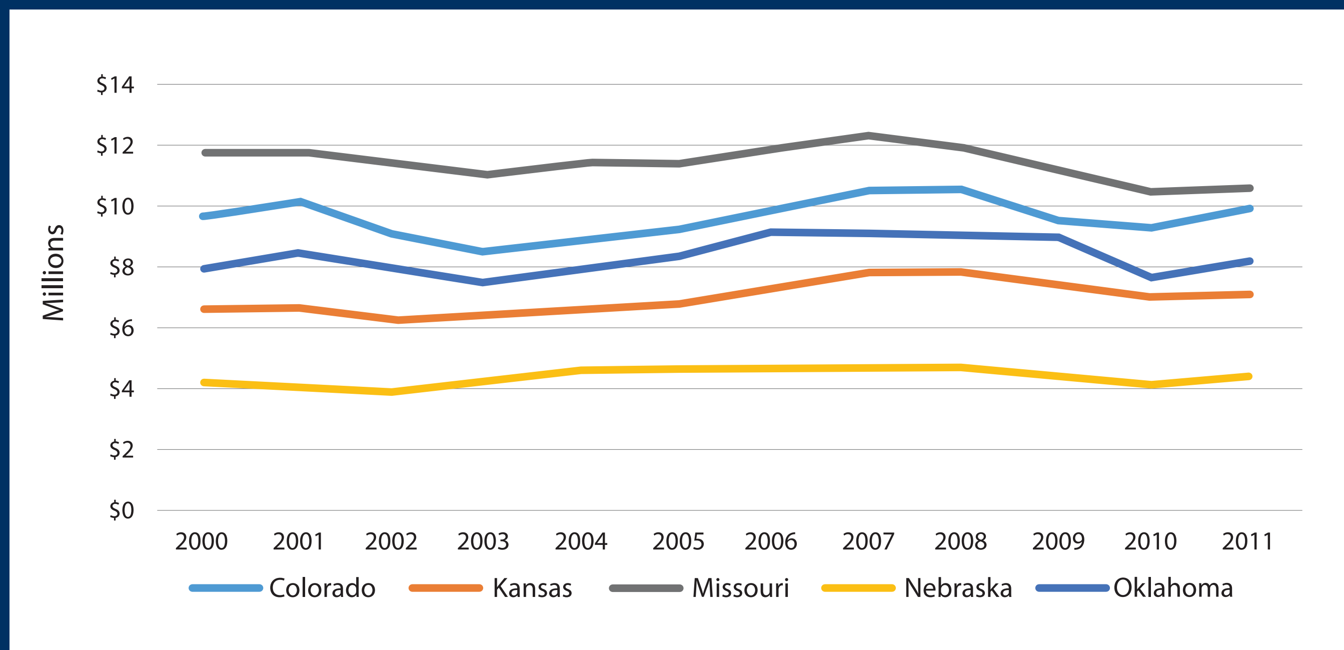
Table 1 tabulates these values for the period from 2000 to 2015. The last two columns show the ratio of total taxes to total revenue and to own-source revenue. The fluctuations over time in this ratio show the importance and variability

[4] See sources listed below Table 1. These figures are reported in 2015 dollars at their source and were not altered for use in this paper. The CPI inflation rate over the 2015–2017 period was 3.4%, so all values expressed in 2015 dollars would be increased 3.4% to state them in 2017 dollars.

Figure 6

Real Total Tax Revenue (Thousands of 2015 Dollars)

Kansas's inflation-adjusted tax revenue was consistently lower than that of all but one neighboring state.



Source: Urban Institute's Tax Policy Center for real total tax revenue (https://slfdqs.taxpolicycenter.org/pages.cfm).

of federal funding relative to total state revenue, and they also show something of the variability of the ratio of taxes to other revenue streams that comprise own-source revenue.

Table 1 shows how taxes and the tax reform of 2012 fit into the big picture of Kansas state government finance on the revenue side. For now, we will return to looking at the Kansas fiscal situation in the years before the tax reform. We will focus on own-source total revenue and on total taxes. Even though own-source total revenue is the revenue most directly under the control of the state, total taxes was the focus of the Kansas tax reform.

Figure 6 graphs inflation-adjusted total tax revenue for Kansas and neighboring states from 2000 to 2011. For all states there is evidence of falling tax collections in or near 2008. This is due to the Great Recession. All else equal, when economic activity declines, so do tax collections.

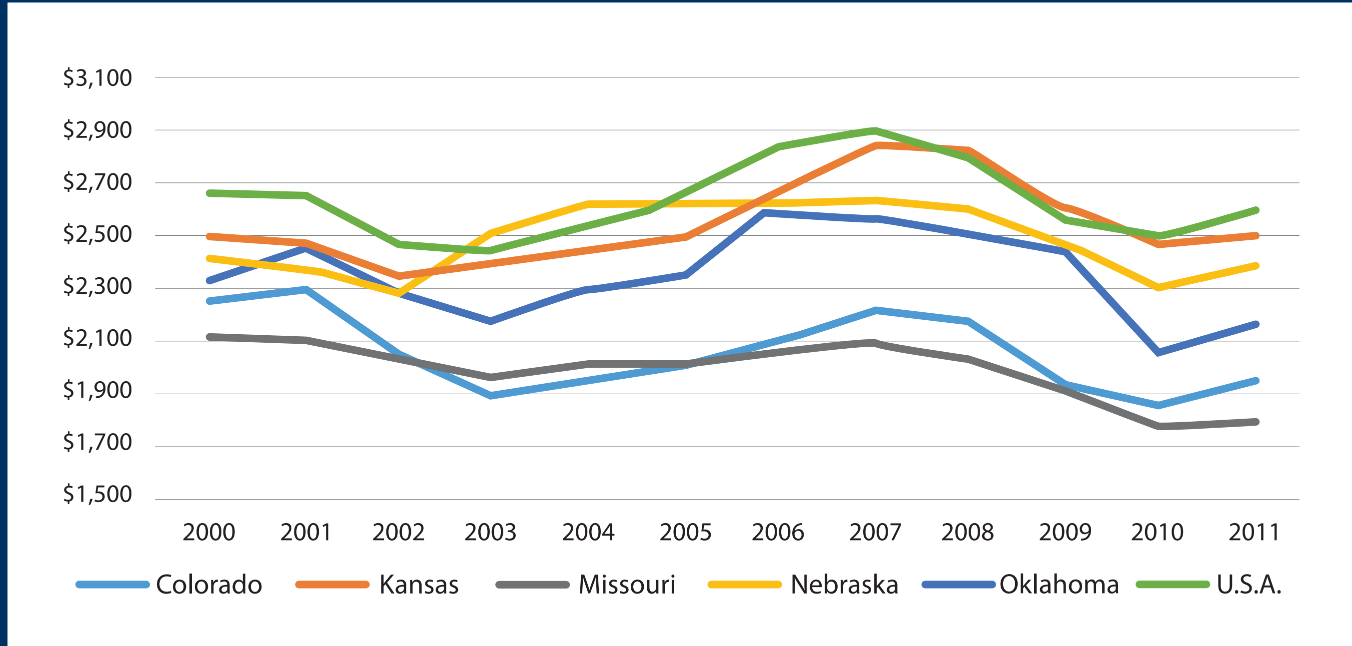
However, the experience of the various states over this period warrants more comment. The state collecting the most total tax revenue is also one of the most populous states in this set, Missouri. Missouri's tax collections in 2007 were about the same as in 2000, and then declined with the recession and by 2011 had not recovered. Over the entire period from 2000 to 2011 Missouri's real tax revenue declined by 9.7%.

Kansas also experienced a decline in tax revenue after the recession, but over the entire period Kansas tax revenue rose from $6.7 billion to $7.2 billion, an increase of 7.3%. Colorado had a small increase in tax revenue over these years, 2.4%, even after the decline due to the recession. Nebraska experienced an increase of 7.6%, and perhaps was least impacted by the recession. Finally, Oklahoma had a sizable dip due to the recession but had a 1.9% increase in tax collections over the entire eleven years.

Figure 7

Real Per Capita Total Tax Revenue (2015 dollars)

Kansas's inflation-adjusted tax revenue per capita was typically higher than those of all neighboring states from 2006 to 2011.



Source: Urban Institute's Tax Policy Center for real per capita total tax revenue, (https://slfdqs.taxpolicycenter.org/pages.cfm).

What does this tell us about Kansas? Only that Kansas's tax experience was not unique relative to its neighbors. In fact, the Kansas state government had been experiencing rising tax collections over time even after accounting for the impact of the Great Recession.

The above measures are of total tax collections, and governments must eventually balance tax collections with spending. In contrast, the burden on individual taxpayers might better be measured by tax collections per capita, or even tax collections relative to personal income. Higher levels of per capita taxation mean that individuals on average are paying higher taxes to the state.

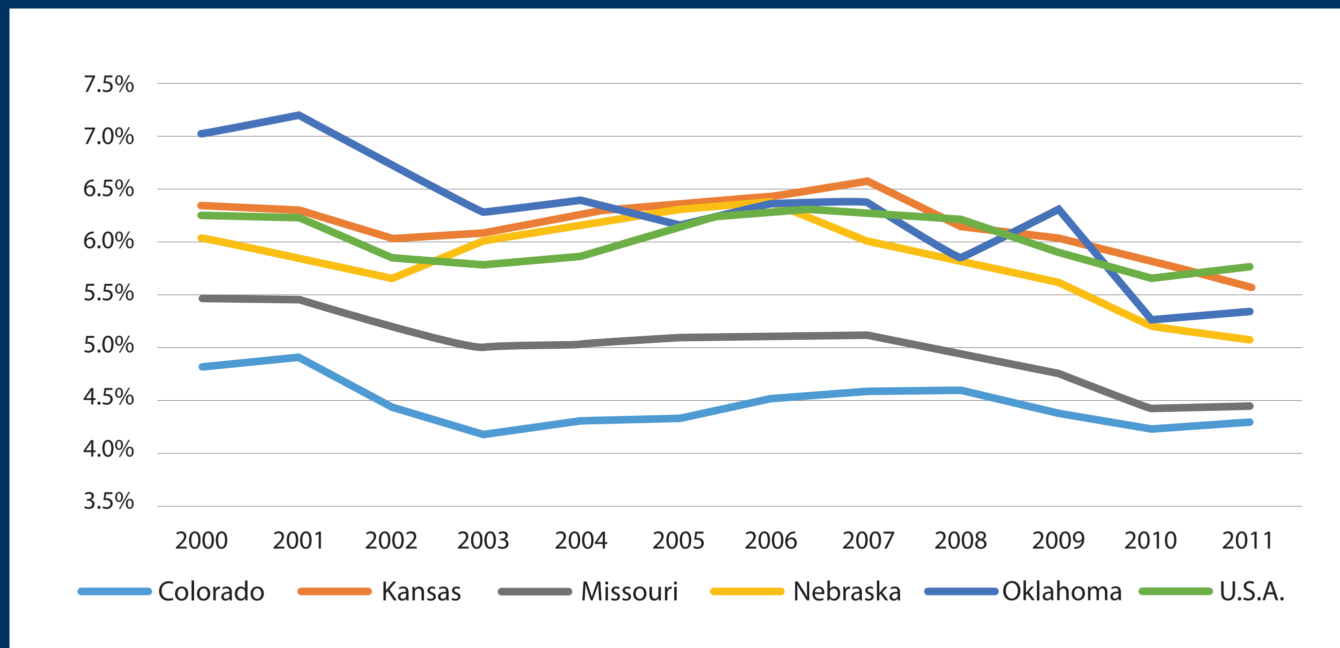
Figure 7 shows real total state tax revenue per capita for our five states, and also includes the overall national average. The graph shows the tendency for per capita taxes to fall in the early years following the recession in 2001. Per capita taxes then rose from about 2003 through 2007. The Great Recession led to a reduction in per capita tax collections from 2008 to 2010, and the beginning of rising levels in 2011.

It is clear from Figure 7 that Kansas had relatively high taxes per person compared to its neighbors. In 2000 Kansas taxed its citizens $2,477 per person, compared to Nebraska at $2,394, Oklahoma at $2,327, Colorado at $2,251, and Missouri at $2,104. The average across all states was $2,638. By 2011 Kansas taxed its citizens $2,496 per person, Oklahoma $2,408, Nebraska $2,397, Colorado $1,949, and Missouri $1,773. The national average was $2,583. Kansas' taxation rate was higher than those of its neighbors, and sometimes equal but often just below the overall state tax rate per person for the entire country. Another way to think about this is that by 2011, Kansas was collecting taxes from its residents at 140% of the amount that Missouri was taxing its residents.

Figure 8

Total Tax Revenue Relative to Personal Income

Kansas's inflation-adjusted tax revenue was consistently high compared to its neighboring states.



Source: Urban Institute's Tax Policy Center for real total tax revenue relative to personal income (https://slfdqs.taxpolicycenter.org/pages.cfm).

Per capita taxes tell one story of the average per-person tax burden in a state, but some states have higher levels of personal income than other states, and individuals with higher levels of personal income may be better able to pay a given amount of taxes. One way to look at the average tax burden a state places on its residents is to compare the ratio of state tax collections to state personal income. This provides a measure of the percentage of personal income that is taken away by tax collections.

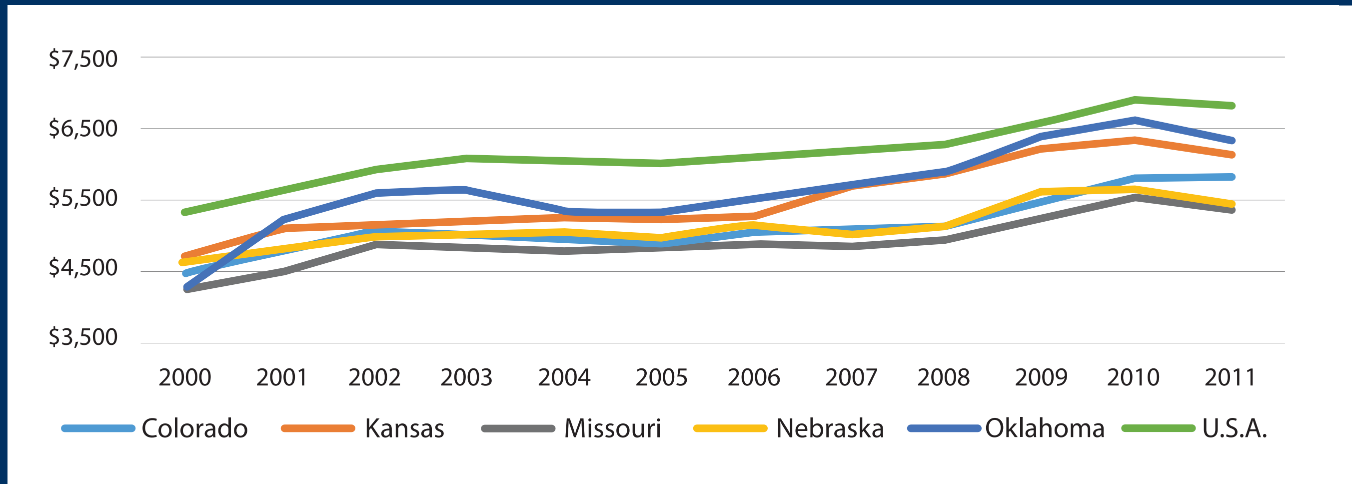
Figure 8 graphs the ratio of state tax revenue to state personal income for Kansas and its neighboring states. There is a tendency for taxes as a share of personal income to fall, although part of this is due, again, to the Great Recession. During a recession it is not uncommon for taxes to decline more than personal income, reducing the ratio, and that is apparent in Figure 8 as seen with the national number. Kansas started in 2000 with the ratio of taxes to personal income at 6.3%, and in 2011 this ratio was 5.6%. The highest value for this ratio over these eleven years was 6.5% in 2007, and the lowest was in 2011.

Other states also exhibited similar declines. The national ratio of state taxes to personal income was 6.3% in 2000, declining to 5.8% in 2011. Missouri had a ratio of 5.5% in 2000, declining to 4.4% in 2011. Oklahoma showed the biggest movement, from 7.1% in 2000 to 5.3% in 2011. In terms of overall tax burden, measured by taxes as a percentage of personal income, Kansas again appears as a state with a high tax burden relative to its neighbors. It was second to Oklahoma through 2004, and starting in 2005, it was higher than other neighboring states except for Oklahoma in 2009. In 2011 Kansas had a higher ratio of taxes to personal income than any of its neighbors, although it was just under the overall ratio for the whole country.

Figure 9

Real Per Capita Total Expenditures (2015 dollars)

Kansas's inflation-adjusted per capita spending is typically second highest when compared to totals in neighboring states.



Urban Institute's Tax Policy Center for real per capita total expenditures (https://slfdqs.taxpolicycenter.org/pages.cfm).

What about the expenditure side of the budget? Figure 9 graphs per capita real total state expenditures (in 2015 dollars to control for inflation) for our five states, and the U.S. average of state expenditures. As the graph shows, state spending after inflation has been on a gentle upward path for all states

All five of our states are spending less per capita than the average for the United States. Kansas and Oklahoma are on the high side of the spending level, while Nebraska and Missouri are lower. In 2011, the national average level of state spending per capita was $6,795. Kansas spent $6,127 per person, Oklahoma $6,268, Colorado $5,836, Nebraska $5,352, and Missouri $5,372. Noticeable is the lack of any large reduction in state per capita spending during the recession. There were some declines or slower growth after the Great Recession, but the impact of the recession on spending was nowhere near as large as the impact on tax collections. Finally, all states showed an increase in per-capita spending from 2000 to 2011. Oklahoma's spending increased by 48% per person, with Colorado at 32%, Kansas at 31%, Missouri at 27%, and Nebraska at 15%. The average increase for the United States in state expenditures was 28%.

How does this compare to total revenue per capita? Recalling that states receive a significant amount of funding from the federal government, Figure 10 graphs real per capita total revenue, which includes own-source total revenue plus other sources of revenue including federal payments to states. The impact of the recession is clear, with a large decline in per capita total revenue occurring in all states in 2009. Real per capita total revenue recovered in 2010 and continued to rise in 2011, mostly reaching pre-recession values.

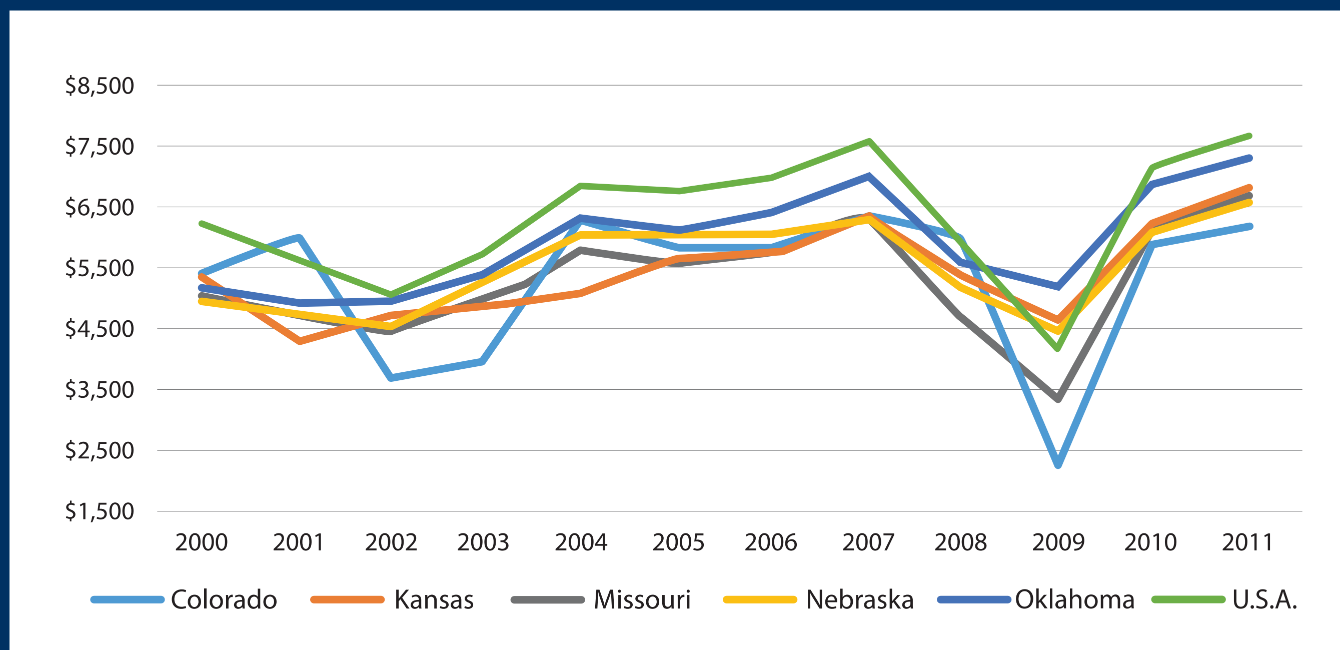
In 2011 the national average for total state revenue per capita hit $7,692 (in 2015 dollars). Oklahoma had per capita revenue of $7,311, Kansas $6823, Missouri $6,769, Nebraska $6,612, and Colorado $6,212. Kansas was second among the five states in per capita revenue, and all were below the national average.

Importantly, Kansas had just ended a period of substantial budget deficits due to the recession. In 2008 and 2009 total revenues declined, while total spending continued its upward trend. Figure 11 graphs Kansas real per-capita total revenue and total expenditures from 2000 to 2011, along with the difference between revenues and expenditures.

Figure 10

Real Per Capita Total Revenue (2015 dollars)

Kansas's inflation-adjusted per capita total revenue was in the middle of the distribution compared to those in neighboring states.



Source: Urban Institute's Tax Policy Center for real per capita total revenue, (https://slfdqs.taxpolicycenter.org/pages.cfm).

The large deficits in 2008 and 2009 are apparent in the graph, as is the recovery in 2010 and 2011 as revenues were restored.

THE 2012 TAX REFORM

The tax reform of 2012 was contained in Kansas HB-2117, enacted on July 1, 2012 and became effective for the 2013 tax year. The bill also addressed severance taxes and Kansas's Homestead Program, but the big items were the changes in marginal income tax rates and the treatment of pass-through income.[5] The large changes to the tax rates were outlined earlier, as was the complete exemption of income tax on pass-through income.[6]

[5] The reform made renters ineligible for the Homestead Property Tax Refund Program. It also repealed a two-year 'new pool' severance tax exemption on oil wells producing 50 or more barrels daily that began producing after the signing date, July 1, 2012.

[6] There were other changes: The standard deduction was increased (from $6,000 to $9,000 for married couples, and from $4,500 to $9,000 for single head-of-households), and certain tax credits were repealed.

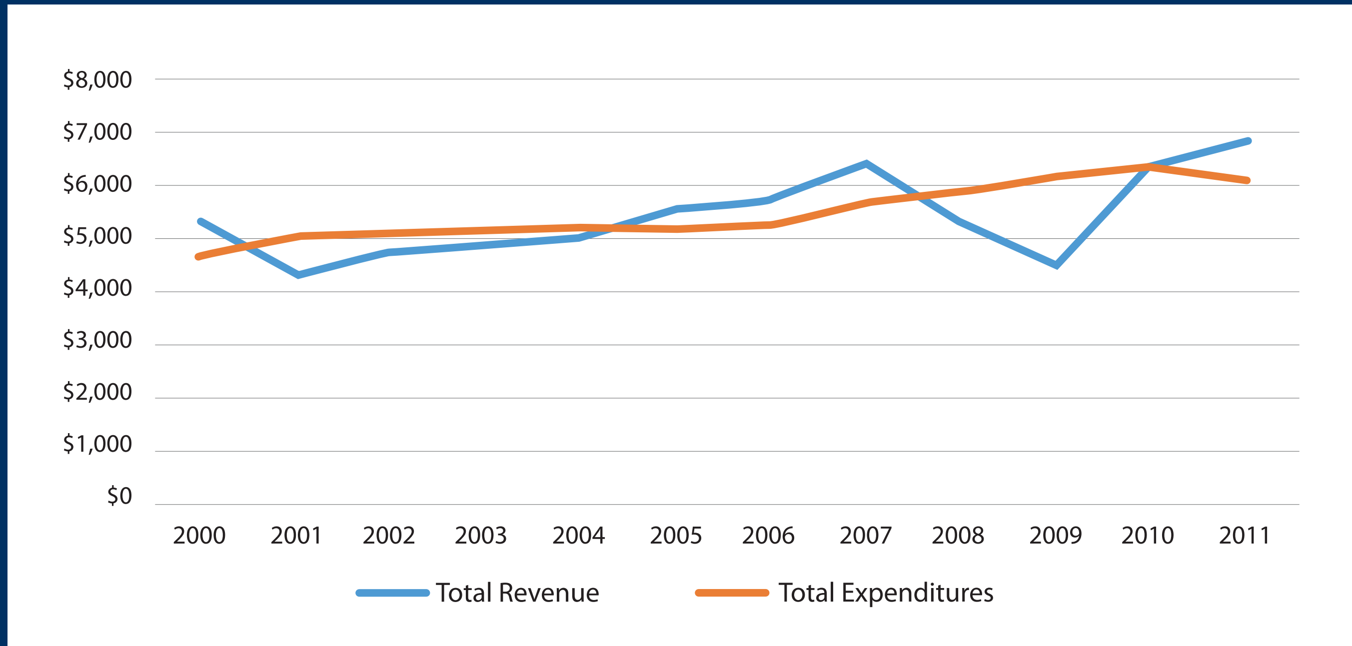
Kansas Governor Sam Brownback was a driving force behind this tax reform. He wrote at the time that the tax reform would "pave the way to the creation of tens of thousands of new jobs, bring tens of thousands of people to Kansas, and help make our state the best place in America to start and grow a small business. . . . Now is the time to grow our economy, not state government, and that's what this tax cut will do" (Brownback 2012). Nick Jordan, Kansas Revenue Secretary during this time, was more precise, saying the administration was expecting the creation of 22,000 jobs over and above what would otherwise occur, and 35,000 people moving to the state in the coming five years (Cooper 2012).

The Kansas tax reform was rather quickly reversed. In 2016 House Bill 30 repealed the exemption of income taxation on pass-through income starting with the 2017 tax year. In addition, the individual income tax brackets were changed starting in 2018. The Kansas tax reform

Figure 11

Kansas Per Capita Total Revenue and Total Expenditure, Real 2015 Dollars

Kansas's government finances were impacted strongly by The Great Recession in 2008 and 2009.



Source: Urban Institute's Tax Policy Center for real per capita total tax revenue and total expenditures (https://slfdqs.taxpolicycenter.org/pages.cfm).

experiment had four years of the pass-through exemption and five years of the lower income tax rates, although it is worth re-emphasizing that the tax rates for 2018, while higher in part than those of 2012, are still lower than the pre-2012 tax rates, as was shown earlier in Figure 1.

The quick repeal of the pass-through exemption, and the quick additional reform to the tax rates and brackets, was largely a response to the impact of the 2012 reform on state revenues, as the reform led to a budget shortfall. The reforms did not have any obvious deleterious impact on the overall economy.

In fact, the tax reform of 2012 was partly reversed even before HB-30 in 2016. In June 2015, the Kansas government found itself facing large shortfalls in revenue (estimated at $400 million) and threats of declining bond ratings, which would have led to increased interest expenses when borrowing. The legislature, under strong pressure from the governor, narrowly voted to increase the sales tax rate from 6.15% to 6.5% while also enacting other revenue enhancing measures such as raising cigarette taxes. These took effect in July 2015. Accordingly, analyses of the 2012 tax reform, which took effect in 2013, are complicated by this significant sales tax increase taking effect within two years of the 2012 reform. There is a real sense in which the first part of the reversal occurred with this legislative act in June 2015 and not with the legislation in July 2017.

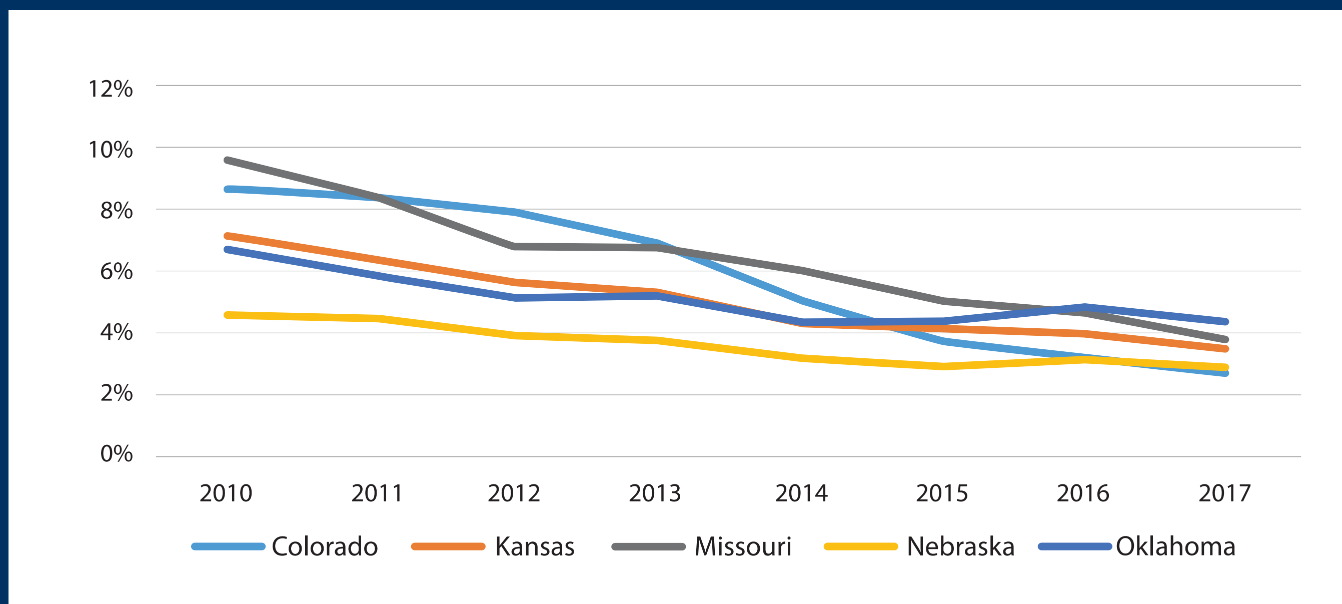
RESULTS OF THE 2012 REFORM: THE KANSAS ECONOMY

The tax reform may have hurt government finances, especially given the lack of cuts in spending. The sales tax hike did not by itself completely make up for the income tax cuts. But before considering government finances, it is helpful to consider the impact of the tax

Figure 12

Unemployment Rates in Kansas and Neighboring States, 2010–2017

The unemployment rate in Kansas was in the middle of the distribution of unemployment rates in neighboring states and has declined since The Great Recession.



Source: Bureau of Economic Analysis for unemployment rate by state and year (https://www.bls.gov/lau/rdscnp16.htm).

cuts (as co-mingled with the sales tax increase) on the overall economy. In 2012, there was concern about the slow recovery from the Great Recession, including the slow decline in the unemployment rate. Figure 12 graphs the unemployment rate of Kansas and neighboring states from 2010 until 2017. Recall that the tax reform took effect in 2013 and was itself reformed (or 'ended') in two steps in 2017 and 2018, along with a sales tax increase in 2015. The Kansas unemployment rate in 2012, the year the reform was enacted but prior to when the reform took effect, was 5.7%. By 2017 it was 3.6%, the lowest the unemployment rate had been in Kansas this century, and the lowest since 1990 except for 1999 when it was 3.3%.

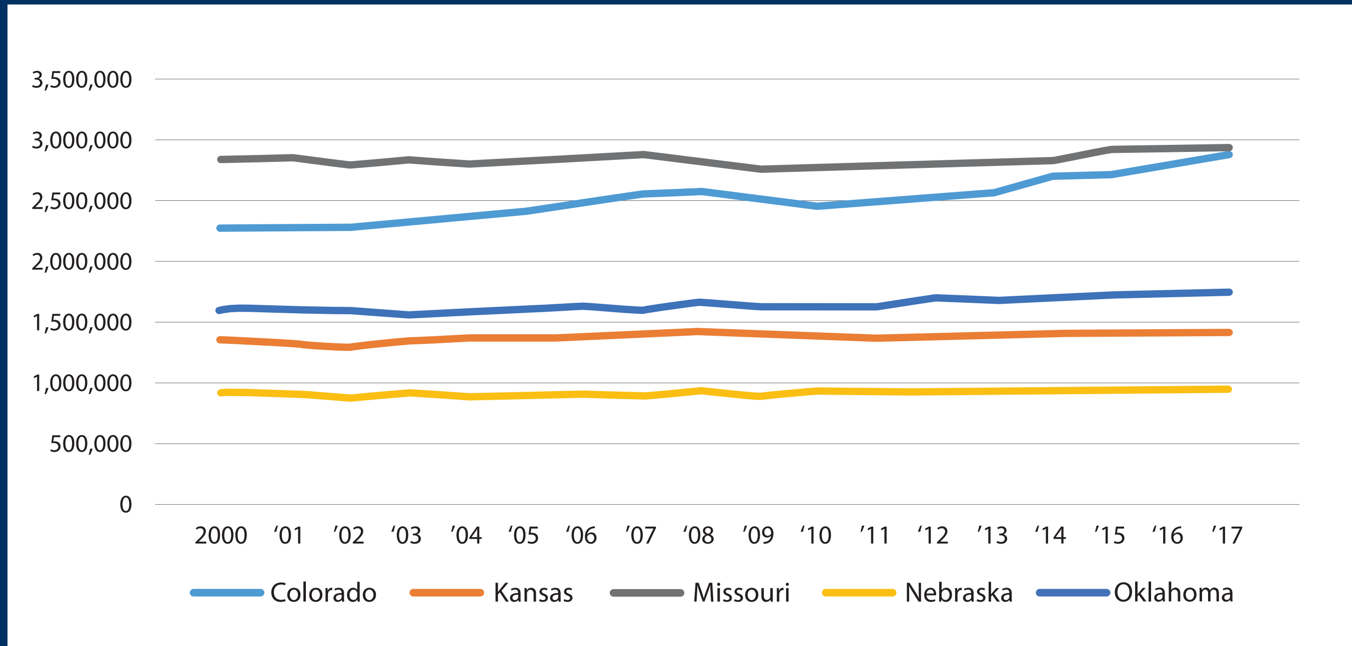
How did other states fare? Colorado's unemployment rate fell from 7.9% in 2012 to 2.8% in 2017. Missouri's rate fell from 6.9% to 3.8%, and Nebraska's from 4.0% to 2.9%. Oklahoma saw its unemployment rate fall from 5.2% in 2012 to 4.3% in 2017. Colorado exhibits the most extreme cyclical pattern in its unemployment rate, and Nebraska the least cyclical pattern. Kansas is in the middle, both in the pre-reform period and in the post-reform period. There is little evidence, therefore, that the tax reform had any large impact on the already-improving post–Great Recession Kansas unemployment rate. Kansas started in the middle of the pack and ended in the middle as well. There is also no evidence that the 2012 tax reform as had a negative impact on the economy in terms of employment.

Governor Brownback emphasized job creation in pushing for the Kansas tax reform. What is the evidence on job growth in Kansas compared to surrounding states? Figure 13 plots employment from 2000 through 2017. Because most of these states have low population growth rates, they also have fairly flat growth in employment. After all, the fraction of the population interested in working changes slowly over time. Colorado and to a lesser extent Oklahoma show an increase in employment over time corresponding to their increase in population. Tabulating

Figure 13

Employment in Kansas and Neighboring States

Employment in Kansas is lower than in all but one neighboring state and shows little growth over time.



Source: Bureau of Economic Analysis for employment by state and year (https://www.bls.gov/lau/staadata.txt).

the results in Table 2 provides a better look at what happened to employment levels and, more importantly, employment growth. Kansas shows only small changes in the annual growth rate of employment between the periods 2000 to 2012 and 2013 to 2017. The tax reform appears to have had very little discernable effect, positive or negative, on employment.

Table 2 shows the increasing employment in Colorado, which was increasing relatively rapidly in the early period of 2000 to 2012, and even faster in the 2012 to 2017 period. Missouri showed an actual decline between 2000 and 2012, but a respectable rate of increase in the 2013 to 2017 period. Oklahoma, like Kansas, showed similar growth rates in the earlier and later periods. Finally, Nebraska showed almost no employment growth in the 2013 to 2017 period after growing at a relatively higher rate in 2000 to 2012. There is nothing in this pattern to suggest that the Kansas tax reform hurt, or helped, employment growth in Kansas.

Another way to look at the post-reform Kansas economy is to examine per capita real GDP. Figure 14 graphs per capita real GDP for Kansas and surrounding states from 2010 to 2017. There is an upward trend exhibited for these states, although the trend in Missouri is relatively low. The highest per capita GDP is in Nebraska, followed by Colorado, then Kansas, and then Oklahoma and Missouri (although Missouri was ahead of Oklahoma in 2010 and 2011).

Over the 2012 to 2017 period real per capita GDP increased most in Colorado (8.8% in these five years) and in Nebraska (7.9%). Real per capita GDP increased by 4.2% in Kansas. Oklahoma had strong growth—6.3% from 2012 to 2017. Missouri lagged, with a 2.6% increase over these years. For comparison, U.S. per capita real GDP grew 7.5% from 2012 to 2017.

Table 2: **Employment by State in 2000, 2012, 2017, and Annualized Growth Rates**

Employment in Kansas grew slowly before and after the tax reform.

	2000	2012	2017	2000–2012 annual growth rate	2012–2017 annual growth rate
Colorado	2,294,408	2,539,941	2,907,468	0.85%	2.74%
Kansas	1,356,147	1,400,122	1,425,216	0.27%	0.36%
Missouri	2,853,891	2,815,275	2,936,126	–0.11%	0.84%
Nebraska	918,370	974,428	977,444	0.49%	0.06%
Oklahoma	1,610,099	1,709,258	1,755,604	0.50%	0.54%

Source: Bureau of Economic Analysis for employment by state and year (https://www.bls.gov/lau/staadata.txt); author's calculations.

Again, this evidence does not point to any strong positive or adverse effects on state GDP from Kansas's 2012 tax reform. Kansas was largely in the middle of the pack before the reform period and remained there after the reform period. Kansas's growth in real GDP over this period was, however, lower than in the pre-reform period, and lagged three of its four neighbors.

Finally, we examine real personal income, population, and per capital real personal income in the period from 2000 to 2011. The following three graphs show these same three variables for the period from 2010 to 2017, to better see what changes occurred after 2012. Figure 15 graphs real personal income, still indexed to the value of 100 for each state in 2000. Oklahoma starts out at 130.1, the value it had achieved by 2010. Kansas's value is 116.7 in 2010. Kansas is in the middle of the pack relative to its neighbors, indicating that its growth rate from 2000 to 2010 was in the middle relative to surrounding states. Critics of the tax reform point to the flat growth in Kansas real personal income from 2012 through 2017, and in Figure 15 this period of very low growth is evident. In 2012 Kansas's value was 127.7 and in 2017 it was 130.3, indicating that real personal income grew by 2.0% over these five years. This growth was the slowest of the five states. Colorado grew 21.2% in these five years, Missouri grew 6.9%, Nebraska 6.1%, and Oklahoma 3.2%. The United States grew 12.5%. Kansas was by far the laggard among these entities.

Changes in real personal income are made up of changes in per capita real personal income and changes in population. Figure 16 shows per capita real personal income from 2010 to 2017 for these five states, and here Kansas fares better in the comparison. In 2017 Kansas's per capita real personal income was $48,559, still in the middle of the values for these five states. Colorado's value was highest at $54,646, and Oklahoma was lowest at $44,376. The value for the entire United States was $51,640. Even here, the growth from 2012 to 2017 in Kansas was anemic; a 1.0% increase from 2012 to 2017. Only Oklahoma was lower, with a 0.2% change over these five years. Colorado had an increase of 12.1%, followed by Missouri at 5.3% and Nebraska at 2.5%. The United States had an increase in per capita real personal income of 8.5% over these five years. This indicates both the relatively low growth rate of this area of the country relative to the national average, and the low growth rate of Kansas relative to its near neighbors.

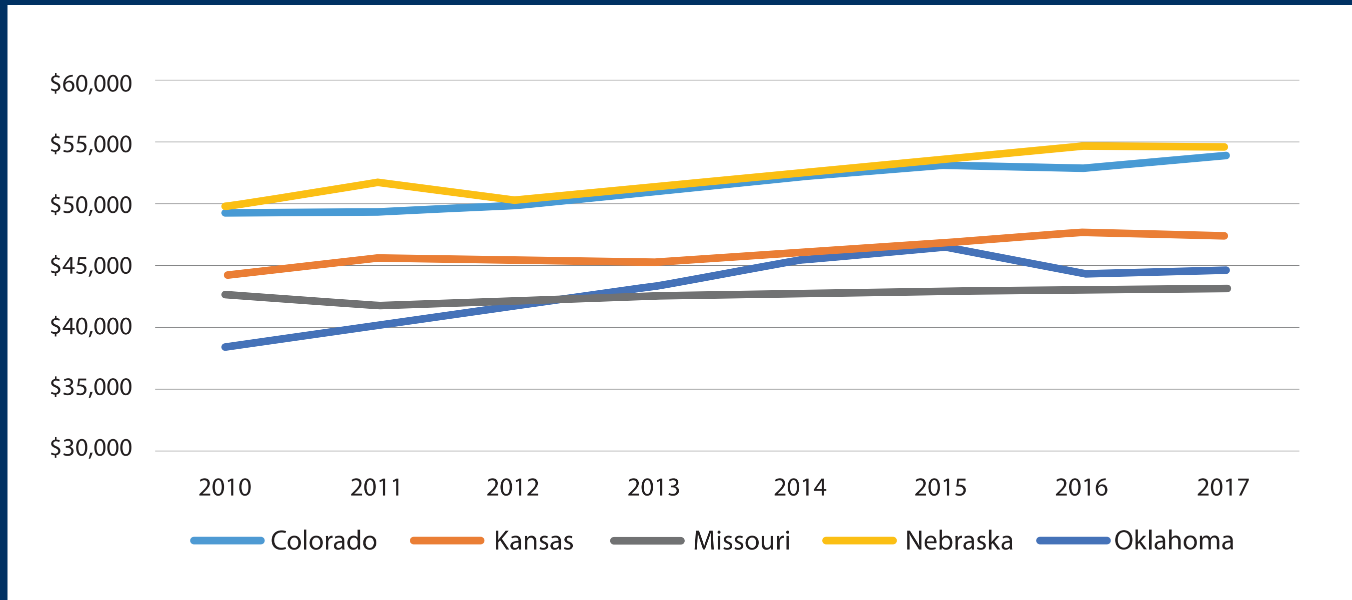
Finally, what about population? Colorado stands out as showing relatively fast population growth, growing by 8.1% in the five years from 2012 to 2017. The United States overall grew 3.7%, just above Nebraska's 3.5% and Oklahoma's 3.0%. Missouri's population grew an anemic 1.5%, and Kansas was even lower, increasing just 1.0% over five years.

What does this tell us? Basically, Kansas was growing slowly at the end of the pre-reform period, and it continued to grow slowly after the reform was passed in 2012. There is no evidence of increased growth in population or per-capita income after the reform.

Figure 14

Per Capita Real GDP, Kansas and Surrounding States, 2010–2017 (in 2009 dollars)

Kansas's per capita real GDP fell further behind Nebraska and Colorado after 2013, but increased its lead over Missouri.



Source: Bureau of Economic Analysis for real GDP by state (https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1).

What factors explain the relative lethargy in the Kansas economy since the Great Recession? Observers point to several features. Oil and gas production in Kansas has declined in importance, especially with falling oil prices coupled with falling production in Kansas.[7] Kansas has a fairly significant aircraft production sector, and some of these firms have experienced declines since the Great Recession.[8] Kansas has a big agricultural sector, and agricultural prices (especially grain prices) declined over this period.[9] Thus, a series of events largely exogenous to Kansas had an impact on Kansas's economic performance. But there are other problems as well—Kansas is not a powerhouse in the tech industry, in bio-tech, nor in the information industry. The fastest growing sectors of the U.S. economy are Agriculture, Mining, Information, Professional, and Education. Among these, Kansas's GDP is overweighted relative to the United States only in Agriculture. It is underweighted in the other four. Kansas was perhaps unlucky in that its industry mix is not strong in those areas of the economy that experienced a lot of growth over the period from 2012 to 2017.

[7] West Texas Intermediate oil prices fell from $105.79/barrel in June 2014 to $47.82 in March 2015 and $30.32 in February 2016. (FRED data download.) Oil production has been falling steadily over time in Kansas, offset by a temporary spike during a fracking boom in 2012–2015. See http://today.ku.edu/2018/04/04/kansas-oil-gas-production-continued-decline-2017. Also http://www.kgs.ku.edu/PRS/petro/state.html.

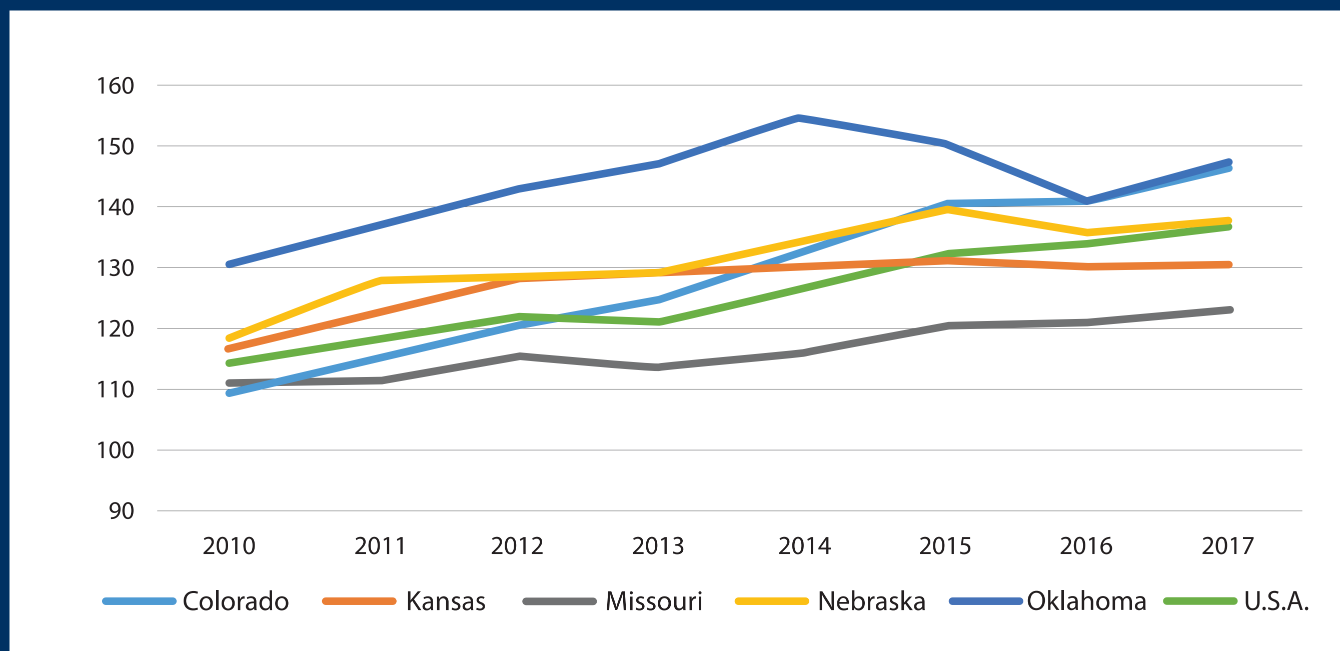
8 For example, Boeing announced in 2012 that it would be leaving the Wichita area after 85 years. The Wichita Eagle reported that this move "affects 2,160 workers in Wichita, their families and the community" (http://www.kansas.com/news/business/aviation/article1083691.html).

9 Wheat prices declined steadily over this period. At the end of October in 2012 they were $8.645/bushel, dropping to $6.675 in 2013, $5.325 in 2014, $5.22 in 2015, and $4.1625 in 2016. (www.macrotrends.net). Kansas is often the largest wheat producer in the USA.

Figure 15

Real Personal Income by State 2010–2017 (All values normalized to 100 in 2000)

Inflation-adjusted personal income in Kansas fell below all but one neighboring state by 2015.



Source: Bureau of Economic Analysis for personal income and population by state and U.S.A. (https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1); FRED Economic Data, FRB-St. Louis, for the Bureau of Labor Statistics for CPI, annual average (https://fred.stlouisfed.org/series/CPIAUCSL#0); and author's calculations.

RESULTS OF THE 2012 REFORM: THE KANSAS BUDGET

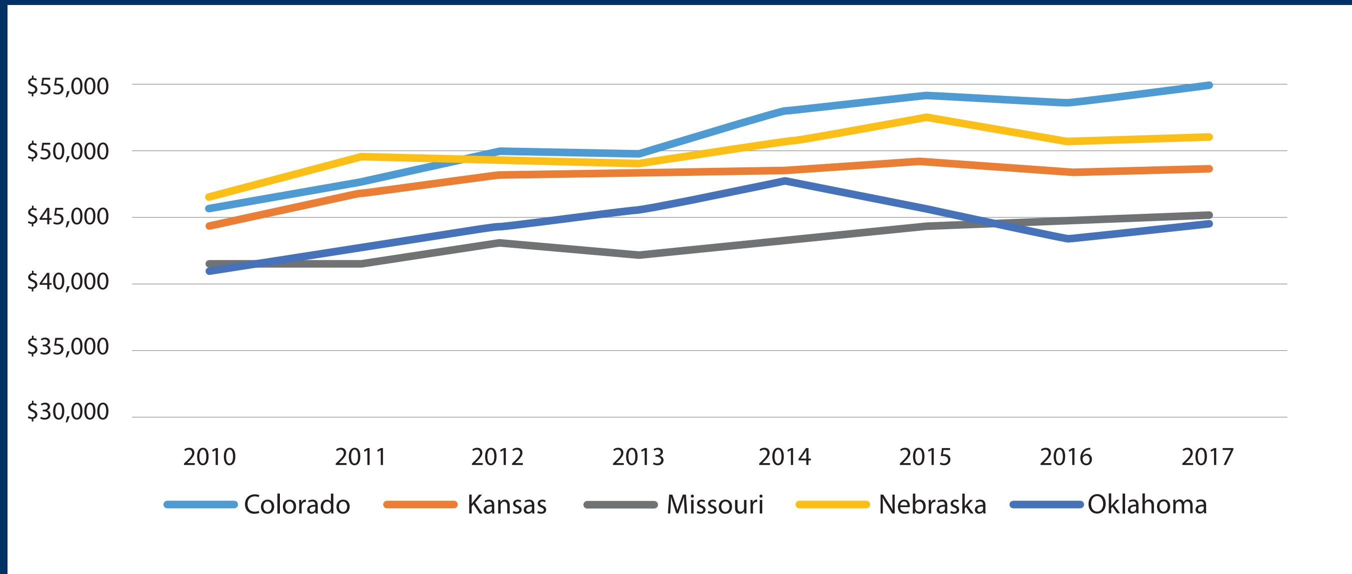
While the Kansas reform had no strong positive or negative impact on the overall economy, it had a substantial impact on the state budget. This led to a large sales tax hike in 2015, and to the partial reversal of the income tax reforms in 2017 and 2018. Thus, despite what critics claim, the reversals in the tax reform were driven not by economic performance but by state budget issues.

The Kansas tax reform did have one rather discernable feature: A significant reduction in tax revenues for the state government. Figure 17 graphs real per capita state tax revenue for our five states and for the United States over the period from 2010 to 2015. Unfortunately, our data source for state tax revenue is available only with a lag, so that data are not available through 2017. Nonetheless, it is clear that Kansas per capita tax collections dipped substantially in 2014. Other states show no such prominent change in 2014. In the United States overall, per capita state tax collections increased at an annualized rate of 2.67% between 2010 and 2015. In our five states, Colorado had an annualized rate of increase of 4.83%, Nebraska had 3.41%, Missouri 2.06%, Kansas 0.72%, and Oklahoma 0.31%. The sharp drop in Kansas in 2014, only a year after the tax changes took effect and only 18 months after the tax bill was passed, resulted in a steep 5.5% decline in per capita tax collections that year. Kansas moved from a position of the highest per-capita taxation among its neighbors into second place. Kansas moved from a position of near-equality with the average state per

Figure 16

Per Capita Real Personal Income , Kansas and Neighboring States, 2010–2017 (in 2017 dollars)

Inflation-adjusted per capita personal income in Kansas was in the middle of neighboring states but stagnant since 2012.



Source: Bureau of Economic Analysis for personal income and population by state and U.S.A. (https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1); FRED Economic Data, FRB-St. Louis, for the Bureau of Labor Statistics for CPI, annual average (https://fred.stlouisfed.org/series/CPIAUCSL#0); author's calculations.

capita taxation to a position clearly below the U.S. average. In 2015 Kansas's tax revenue rebounded a bit, but largely returned to its 2013 level. This was due to a large increase in property taxes accruing to the state government.

Is there evidence that the tax revenue decline had an impact on total revenues, or on total expenditures? The answer is a bit unclear. Figure 18 graphs total revenues including own-source revenues and other revenues, especially federal funding sent to the states. The biggest thing to notice in Figure 18 is the dip in total revenues across all the five states—and in the average of all states—in 2012. This was the impact of the U.S. government reducing the level of transfers to states, levels that had been increased during the Great Recession. These were being unwound in 2012, which impacted all states, further complicating attempts to investigate the impact of the 2012 tax reform.

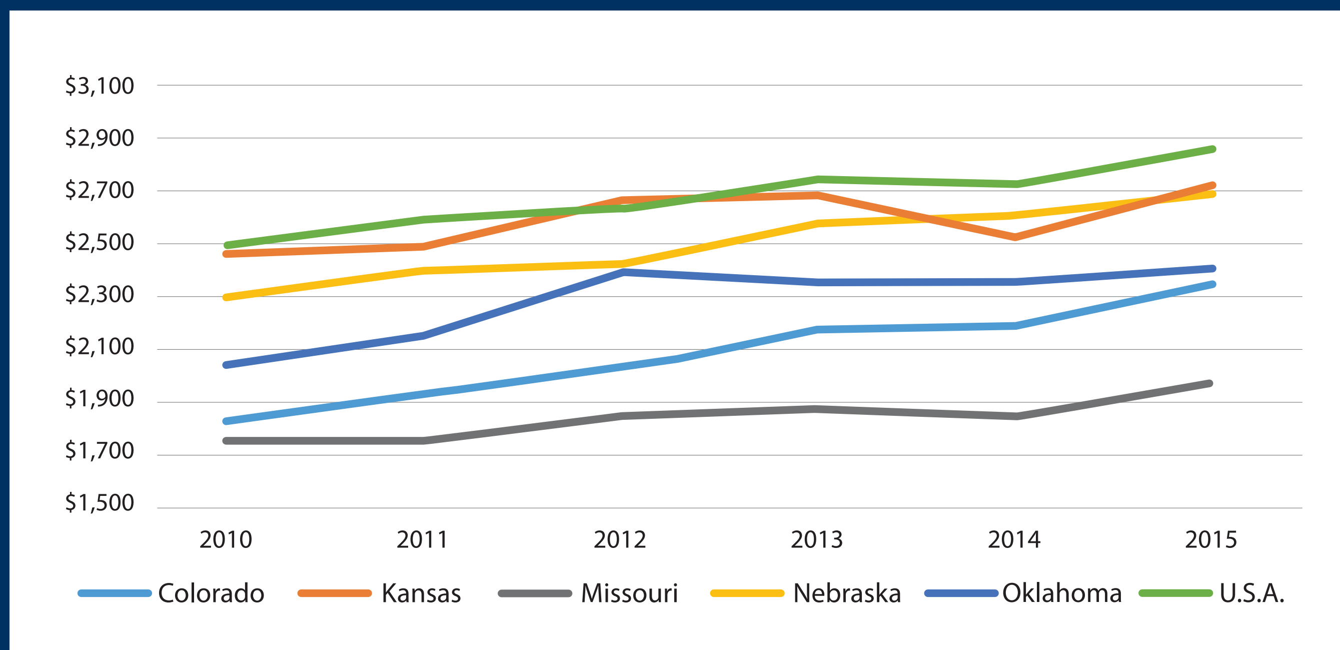
Over the period from 2012 to 2015 period, Kansas's total revenue increased at an annual rate of 2.0%. This compares to Colorado's increase of 7.7%, 2.1% in Nebraska, 1.3% in Missouri, and Oklahoma's increase of 0.5%. The overall state average was 2.6%. Kansas's total revenues were growing during the tax reform period somewhat below the national average and far below Colorado, but better than Missouri and Oklahoma, and essentially the same as Nebraska. It is hard to blame the tax reform for all of Kansas's fiscal problems.

Expenditures tell a similar story. Real per capita total expenditures in Kansas dipped somewhat in 2013 but increased in 2014, and by 2015 had surpassed their 2012 level. Figure 19 illustrates the experience of our five states along with the U.S. average. The U.S. average shows a dip in per capita real total expenditures beginning in 2011. Over our tax reform period we see that from 2012 to 2014 the United States experienced a flat level of per capita

Figure 17

Real Per Capita Total Tax Revenue (2015 dollars)

Kansas's inflation-adjusted per capita total tax revenue fell sharply in 2014.



Source: Urban Institute's Tax Policy Center for real per capita total tax revenue (https://slfdqs.taxpolicycenter.org/pages.cfm).

expenditures, followed by an increase in 2015. Over the 2012 to 2015 period the annualized growth in real per capita total state expenditures for the United States was 0.9%. Kansas experienced an annualized growth rate of 1.0%. Colorado was much higher at 4.0%. Missouri was –0.6%, Nebraska 1.4%, and Oklahoma 0.1%. Over this period Kansas was increasing per capita spending at about an average rate, both with respect to neighboring states and with respect to the national average.

It does not seem that Kansas expenditures were held in check by the tax reform, at least compared to the overall U.S. experience and relative to its neighbors. Perhaps that was the problem. Colorado could realize rather large increases in state spending because it experienced a boom in GDP and a tremendous increase in population and employment during the period from 2012 to 2017. Kansas, like most of its other neighbors, did not have the same increase in GDP, and had a much more modest increase in employment, and thus would have a more difficult time increasing government spending per capita.[10]

ANALYSIS OF THE 2012 REFORM

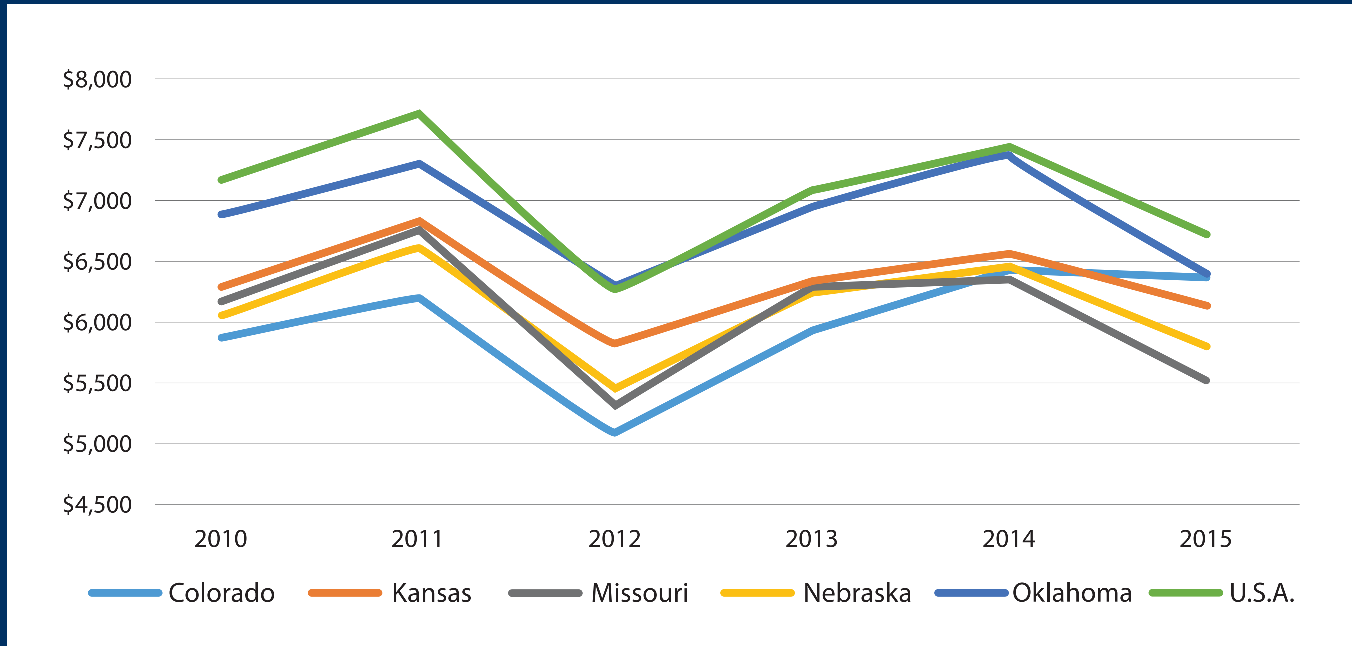
The Kansas tax reform of 2012 has been criticized on several grounds. First, the exemption of all pass-through income from state taxes led to diversion of income from taxable to non-taxable classification. The intent of the exemption as stated was to provide incentives for business to start or to grow, or to migrate from other states. Exempting pass-through income from taxation certainly provided a strong incentive along these lines. However,

[10] It should be noted that Colorado received fairly substantial state revenue from marijuana legalization. Including taxes, licenses and fees, Colorado received $67.6 million in 2014 and $130.4 million in 2015 in new revenue from legalized marijuana. While not relevant for the figure, in 2017 Colorado revenue from marijuana was $247 million. See https://www.colorado.gov/pacific/revenue/colorado-marijuana-tax-data.

Figure 18

Real Per Capita Total Revenue (2015 dollars)

Kansas's inflation-adjusted per capita total revenue fell sharply in 2015, but this happened in most neighboring states as well.



Source: Urban Institute's Tax Policy Center for real per capita total revenue (https://slfdqs.taxpolicycenter.org/pages.cfm).

it takes time for this incentive to work; businesses do not start up overnight, nor do they grow overnight.

A more immediate (and perhaps unintended) impact of the pass-through exemption was for individuals to alter their tax filings and their business structure to take advantage of the exemption. Individuals suddenly had a strong incentive to reclassify wage income as business profits, hence reducing income taxes. Business owners in particular have some discretion in how income to owners is classified, and the tax reform provided strong incentives to reclassify income to take advantage of the pass-through exemption. It is hardly a surprise that this feature of the tax reform was the first to be eliminated, as the immediate short-term actions led to revenue loss without the consequent offsetting increase in business startups and expansion that was expected to replace some of the immediate lost tax revenue.[11]

11 DeBacker et al. (2017) study the Kansas tax reform and specifically the pass-through exemption. They report finding strong evidence of this recharacterizing activity—tax avoidance—as compared to evidence of increased business formation.

A second criticism is that the tax reform reduced tax collections without also reducing expenditures. This criticism addresses the failure of the Kansas tax reform to be revenue neutral, neglecting to cut taxes and spending proportionally so that the state is not running an ongoing deficit.

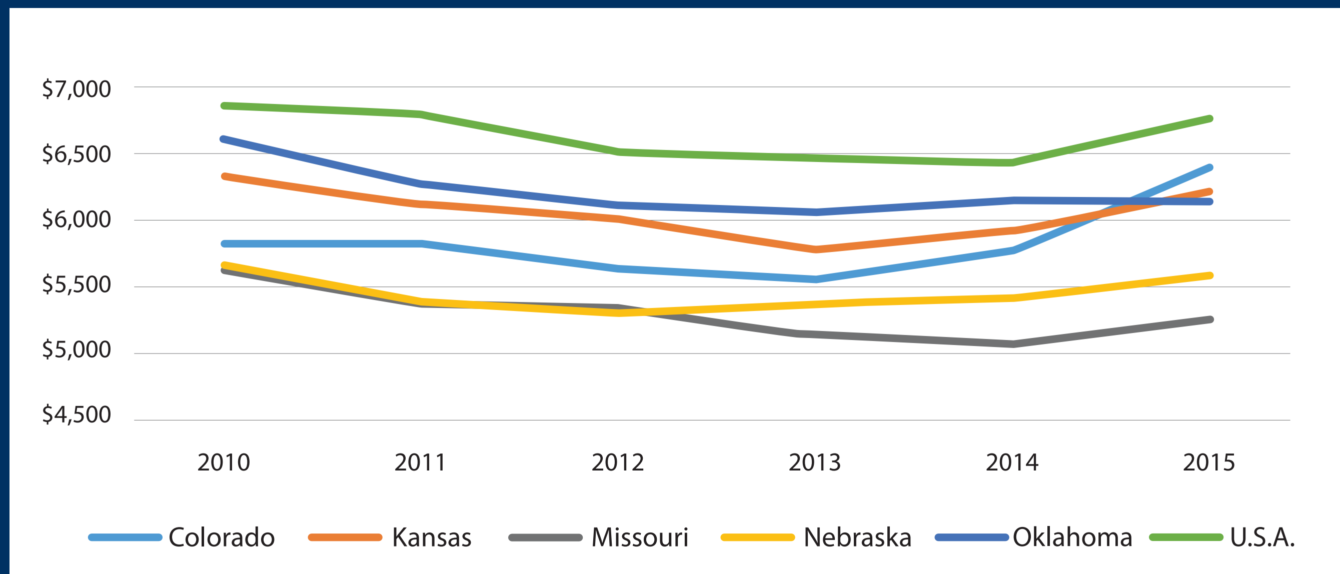
Both of these criticisms have merit. The pass-through exemption was intended to increase incentive for business formation, but it turned out to provide strong incentives for tax avoidance activities that had little to do with increasing business formation. When economists argue about reducing taxes on capital, they typically consider reducing one type of tax while increasing another. These arguments hold government spending constant.

Economists also argue over the level of taxation, and these arguments are also over the level of government spending. There is no suggestion that cutting taxes without sufficient expenditure cuts is good policy, and while there are dynamic responses to tax changes, they do not take place

Figure 19

Real Per Capita Total Expenditures (2015 dollars)

Kansas's inflation-adjusted per capita total expenditures rose in 2014 and again in 2015.



Source: Urban Institute's Tax Policy Center for real per capita total expenditures (https://slfdqs.taxpolicycenter.org/pages.cfm).

instantly and they are seldom considered likely to raise revenue that completely offsets a cut in taxes. Kansas's tax reform of 2012, cutting income taxes without sufficient accompanying spending cuts, led to the increase in sales taxes in 2015 and then to the reversal of the initial income tax cut.

One interesting feature of the Kansas experience can be found in the state's projections of future growth in the state's general fund revenues. Each year the state presents one-year-ahead and two-year-ahead forecasts of the path of general fund revenues in order to inform the legislature of the projected availability of funds. Figure 20 graphs Kansas's State General Fund (or SGF) values, actual and forecasted, from 2004 through the 2017 forecast. The solid black line is the actual values. There is strong growth in the period from 2004 to 2008, followed by the decline due to the Great Recession in 2009 and 2010, followed by recovery through 2013, followed by a decline in 2014, 2015, and 2016.

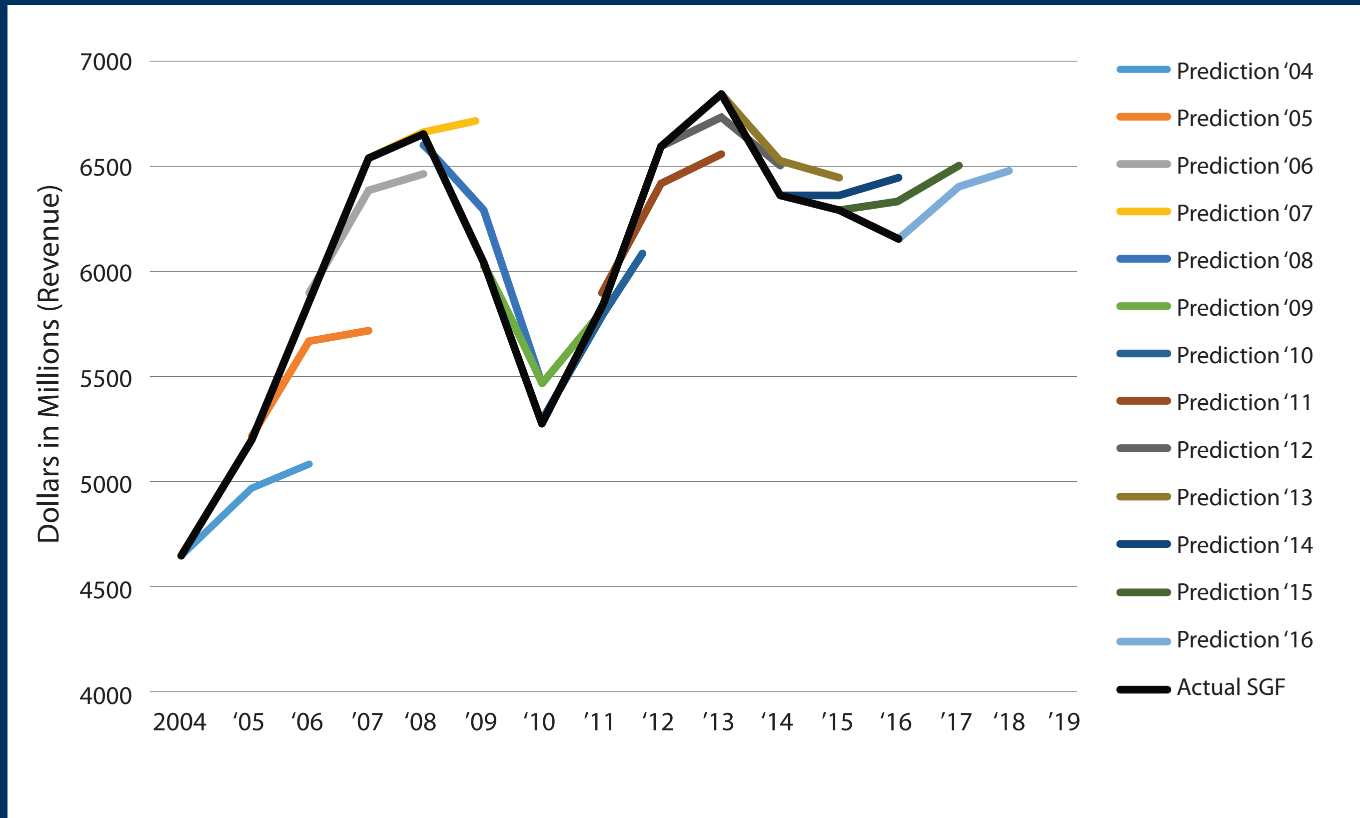
Along with the actual realized values of the SGF, the graph includes the one-year-ahead and two-year-ahead forecasts of the SGF made every year by the state government. Thus in 2004 when the SGF was $4.644 billion, the state predicted that the SGF in 2005 would be $4.960 billion and in 2006 would be $5.047 billion. These two numbers are given on the blue line labeled "Prediction '04" that starts in 2004 and ends in 2006. Comparing these projections to the actual realized values of SGF, it is clear that in 2004 the state government under-forecasted what was going to happened to SGF.

In 2005 the actual realized value of SGF was $5.169 billion, above the forecast for 2005 made in 2004. In 2005 the state government again made one-year-ahead and two-year-ahead forecasts of SGF, on the orange line labeled "Prediction '05." The prediction was for SGF to be $5.640 billion in 2006 and $5.702 billion in 2007. These predictions, too, were conservative, and when SGF was realized in 2006 it was $5.837 billion, not $5.640 billion. Similarly, the forecasts made in 2006 were also conservative and below the subsequent actual values for SGF.

Figure 20

Kansas's State General Fund: Actual Values vs. Predicted

Kansas repeatedly overestimated its available state general funds from 2013 onward.



Source: Kansas Government Budget Reports, various years (https://budget.kansas.gov/budget-report); author's calculations.

Skipping ahead to 2013, the first year of the tax reform, we find the beginning of a series of overly optimistic forecasts. SGF was at its highpoint, $6.844 billion, and the forecast was for a decline in SGF, to $6.556 billion in 2014 and $6.452 billion in 2015. The forecasters were correct in predicting a decline, but in reality SGF declined to $6.363 billion in 2014 and to $6.309 billion in 2015. State officials correctly saw the coming decline in SGF, a decline not caused by any recession, but they failed to correctly forecast the magnitude of the decline.

In 2014 the same overly optimistic forecasting occurred. The realized value of SGF was $6.363 billion, and the forecast made in 2014 was for SGF to decline slightly to $6.354 billion in 2015 and to increase to $6.483 billion in 2016. However, SGF fell to $6.308 billion in 2015 and further, to $6.152 billion, in 2016. Once again, overly optimistic forecasting occurred in 2015. As actual values of SGF continually fell short of predictions, the legislature responded with sales tax increases (in 2015) and with the partial reversal of the initial reform in 2017.

The Kansas state government forecasts were overly optimistic with respect to revenue forecasts made from 2013 through 2015, a period corresponding to the tax reform period and a period in which SGF was continually declining. This is noteworthy mostly because the decline in SGF starting in 2013 cannot be blamed on any economic

recession. It seems that the state government was unable to correctly forecast the results of its own tax reform, and hence may have underestimated the level of spending cuts required to accompany such a tax reform.

Finally, as mentioned above, analyses of the Kansas tax reform of 2012 must consider that, in June 2015, the Kansas legislation voted to raise the sales tax rate from 6.15% to 6.5% starting July 2015 while also raising cigarette taxes and enacting other revenue enhancing measures. Thus an analysis of the 2012 tax reform, which took effect in 2013, was already being complicated by a significant sales tax increase and other measures within a few years of its enactment.

LESSONS FOR THE REST OF US

There are many lessons to be learned from the Kansas experience, but the broadest lesson is what William Gale of the Brookings Institution has suggested: "[T]ax reform is not just about taxes, but rather what taxes pay for. Taxes and spending are linked." As Kansas teaches us, cutting taxes without cutting spending is a recipe for future problems. When push came to shove, Kansas decided it had cut tax revenue too far relative to its willingness to cut spending. Any state interested in cutting taxes should be prepared for the budgetary implications and face these directly. Obviously, one approach would be to reduce government spending, or at least constrain its growth. Another approach would be to broaden the tax base while reducing tax rates, in order to lessen the impact of rate reduction on tax collections.

Kansas failed to adequately forecast the revenue implications of its initial reform in 2012. The shortfall in revenue was apparently an unwelcome surprise to the legislature and was not properly forecasted by the state government. A more accurate forecast of the impact of the 2012 reforms may have better informed policymakers and may have resulted in smaller reductions in the tax rates or alternative decisions regarding pass-through income or stronger efforts at spending restraint. It may also have led to a more extended discussion regarding the tradeoff between sales taxes and income taxes. Any state considering tax cuts is well advised to have accurate forecasts of the tax revenue consequences, and the accompanying budget implications, of any tax reform.

In the end, the Kansas tax reform of 2012 was not so much repealed as it was itself subjected to a series of reforms. Kansas has now, relative to the pre-reform year of 2011, obtained what are largely lower marginal tax rates in exchange for a higher sales tax rate. The pass-through exemption is gone. There are other changes to the tax code, and expenditures are likely lower as a result of the years of fiscal constraint (although such a counterfactual statement cannot be proved). The real test going forward will be whether the Kansas state revenue institution as it exists in 2019 leads to more growth than would have occurred under the Kansas state revenue institution that existed in 2011. The intervening years are a lesson in how not to go about reforming the tax system in a state, but despite assertions to the contrary they do not provide a definitive conclusion concerning the impact of tax reforms on the overall economy.

Tax reforms intended to enhance economic efficiency and increase economic growth by lowering rates can lead to a political conundrum due to an important timing issue. Basically the impact on the government budget can be more immediate and more obvious than the more slowly occurring gains in economic efficiency or in economic growth. Kansas is the exemplar of a tax reform effort that seemed to have little short run impact on the state's economy and that may or may not have had an eventual impact on economic growth, but that certainly had a large and apparently unforeseen impact on the state budget. This state budget impact eventually led to an early retreat from much of the tax reform effort. A better ex ante realization of the budget impact, and better planning for dealing with that budget impact, may have led to a more sustainable tax reform effort. Future reformers should take note of this, the real lesson of the Kansas tax reform experiment.

Dennis W. Jansen is Professor of Economics and the Jordan Professor of Public Policy at Texas A&M University.

REFERENCES

Brownback S. "Gov. Sam Brownback: Tax cuts needed to grow the economy." *The Wichita Eagle,* July 29, 2012. Accessed July 19, 2012 at: https://www.kansas.com/opinion/opn-columns-blogs/article1096336.html.

Bureau of Economic Analysis, U.S. Department of Commerce. Table SA1 Personal Income Summary: Personal Income, Population, Per Capita Personal Income extracted October 1, 2018. Accessed July 19, 2019 at: https://www.bea.gov/data/income-saving/personal-income-by-state.

Cooper, B. "Brownback signs big tax cut in Kansas." *The Kansas City Star,* May 23, 2012. Accessed July 16, 2019 at: https://www.kansascity.com/latest-news/article303137/Brownback-signs-big-tax-cut-in-Kansas.html.

Crowley, GR. (2016), "Case studies in the political economy of tax reform," Mercatus Center working paper, George Mason University. Accessed July 19, 2019 at: https://www.mercatus.org/system/files/Crowley-Tax-Reform-Case-Studies-v1.pdf.

Curry J. "Undeterred by 'Kansas Experiment,' Laffer presses tax cuts," Tax Analysts, August 9 2017.

DeBacker JM, Heim B, Bradley, Ramnath S, and Ross JM. "The impact of state taxes on pass-through businesses: evidence from the 2012 Kansas income tax reform" *SSRN* 2017. Accessed July 19, 2019 at: https://ssrn.com/abstract=2958353.

Ergete F, Dahlby B. "The Impact of tax cuts on economic growth: evidence from the Canadian provinces," *National Tax Journal* 2012:65(3), 563–594. Accessed July 19, 2019 at: https://www.researchgate.net/publication/277937988_The_Impact_of_Tax_Cuts_on_Economic_Growth_Evidence_from_the_Canadian_Provinces .

Gale WG, Krupkin A, Rueben K. The relationship between taxes and growth at the state level: new evidence," National Tax Journal 2015:68(4), 919–942. Accessed July 19, 2019 at: https://www.brookings.edu/wp-content/uploads/2016/07/relationshiptaxesgrowthstatelevel_gale_revised-1.pdf.

Gale, WG. "The Kansas tax cut experiment," Brookings Institution, July 11, 2017. Accessed July 19, 2019 at: https://www.brookings.edu/blog/unpacked/2017/07/11/the-kansas-tax-cut-experiment.

Gleckman H. "The Great Kansas Tax Cut Experiment crashes and burns," Forbes, June 7, 2017. Accessed July 19, 2019 at: https://www.forbes.com/sites/beltway/2017/06/07/the-great-kansas-tax-cut-experiment-crashes-and-burns/#56a7aff45508.

Johnson N, Mazerov M. "Proposed Kansas tax break for "pass-through" profits is poorly targeted and will not create jobs," Center on Budget and Policy Priorities, March 26, 2012. Accessed July 19, 2019 at: https://www.cbpp.org/research/proposed-kansas-tax-break-for-pass-through-profits-is-poorly-targeted-and-will-not-create.

Kansas Center for Economic Growth, "Kansas' self-made fiscal cliff," (2013). Accessed July 19, 2019 at: https://realprosperityks.com/wp-content/uploads/2013/01/KSFiscalCliff.pdf.

Kansas Policy Institute, "What was really the matter with the Kansas tax plan" March 19, 2018. Accessed July 19, 2019 at: https://kansaspolicy.org/kansas-tax-experiment.

Kelly K. "Why Kansas tax-cut "failure" is really a success," Mises Institute, August 3, 2017. Accessed July 19, 2019 at: https://mises.org/wire/why-kansass-tax-cut-failure-really-success.

Laffer, A., Moore, S. "Taxes really do matter: look at the states." Laffer Center for Supply-Side Economics, September 2012, p. 17. Accessed July 16, 2019 at: http://www.laffercenter.com/wp-content/uploads/2012/09/2012-09-TaxesDoMatterLookAtStates-LafferCenter-Laffer-Moore.pdf.

Leachman M, Mai C. "Lessons for other states from Kansas' massive tax cuts," Center on Budget and Policy Priorities, March 27, 2014. Accessed July 19, 2019 at: https://www.cbpp.org/research/lessons-for-other-states-from-kansas-massive-tax-cuts.

Ljungqvist A, Smolyansky M. (2018) "To cut or not to cut? On the impact of corporate taxes on employment and income," NBER Working Paper Series 20753. Accessed July 19, 2019 at: https://www.nber.org/papers/w20753.pdf.

Mazerov M. "Kansas provides compelling evidence of failure of "supply-side" tax cuts," Center on Budget and Policy Priorities, January 22, 2018. Accessed July 19, 2019 at: https://www.cbpp.org/research/state-budget-and-tax/kansas-provides-compelling-evidence-of-failure-of-supply-side-tax-cuts.

McBride W. "What is the evidence on taxes and growth," The Tax Foundation, working paper No. 207, December 18, 2012. Accessed July 19, 2019 at: https://files.taxfoundation.org/legacy/docs/sr207.pdf.

McCloskey J. (2018) "The Kansas tax experiment: impact of 2012 Kansas tax reform on output, employment and establishments," University of Kansas working paper. Accessed August 23, 2019 at: https://jesmccloskey.github.io/pdf/mccloskey_kstax.pdf.

Mitchell DJ. "Three lessons from the tax defeat in Kansas," Cato at Liberty, June 22, 2017. Accessed July 19, 2019 at: https://www.cato.org/blog/three-lessons-tax-defeat-kansas.

New York Times Editorial Board. "Kansas rises up against the trickle-down con job." June 9, 2019. Accessed July 19, 2019 at: https://www.nytimes.com/2017/06/09/opinion/kansas-tax-cuts-sam-brownback.html.

Pathak R, Dzigbede K. "State tax cuts and debt market outcomes: lessons from the kansas tax cut experiment," Baruch College CUNY manuscript working paper, April 2018. Accessed July 19, 2019 at: https://www.brookings.edu/wp-content/uploads/2018/04/DzigbedePathak_MFC_6-30-18.pdf.

Pethokoukis J. "The great Kansas tax cut experiment is over. What are the takeaway lessons?" American Enterprise Institute, June 7, 2017. Accessed July 19, 2019 at: https://www.aei.org/publication/the-great-kansas-tax-cut-experiment-is-over-what-are-the-takeaway-lessons.

Rickman DS, Wang H. (2018) "Two tales of two U.S. states: Regional fiscal austerity and economic performance," *Regional Science and Urban Economics* 2018:68:46–55. Accessed July 19, 2019 at: https://reader.elsevier.com/reader/sd/pii/S0166046217300935?token=85F166D43884122FF234211E90601BAEC7974FA491F8B8D4C61B58DF5950954786B30707A62EF0D45E6CC92F93DAD893.

State of Kansas, Department of Revenue Annual Statistical Report, various fiscal years. Available at: https://www.ksrevenue.org/prannualreport.html.

Thornton A, Hendricks G. "Kansas' 'real live experiment' in trickle-down tax cuts," Center for American Progress, November 2, 2017. Accessed July 19, 2019 at: https://www.americanprogress.org/issues/economy/reports/2017/11/02/441822/kansas-real-live-experiment-trickle-tax-cuts.

Turner TM. and Blagg B. (2018) "The short-term effects of the Kansas income tax cuts on employment growth," *Public Finance Review* 2018:46(6), 1024–1043. Accessed July 19, 2019 at: https://journals.sagepub.com/doi/pdf/10.1177/1091142117699274.

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