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MINNESOTA'S BORDER BATTLES

How state policy affects economies
at the margin

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WITH ASSISTANCE FROM ANDREW SCATTERGOOD AND JARED MILLER



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CONTENTS

Executive Summary.....	1
Introduction.....	2
Minnesota vs Wisconsin.....	7
Minnesota vs Iowa.....	11
Minnesota vs South Dakota.....	14
Minnesota vs North Dakota.....	18
Conclusions.....	21
Endnotes.....	22

Executive Summary

- Supreme Court Justice Louis Brandeis famously described the states of the union as “laboratories of democracy” where a “state may, if its citizens choose...try novel social and economic experiments without risk to the rest of the country.”
- There are numerous factors, though, that can drive a state’s economic performance—such as natural resource endowments or historic development—that are not the result of state government policy. Comparing states’ economic outcomes to assess state policies without accounting for these factors will distort the results.
- We can go some way toward excluding these factors from our analysis by comparing the economic performances of neighboring counties. We can assume that factors driving economic performance besides policy exert a similar effect on, say, Washington County in Minnesota and St. Croix County on the other side of the I-94 bridge in Wisconsin.
- In this report, we compare a number of economic outcomes from 2010 to 2018 in Minnesota border counties with outcomes in the counties in states that border Minnesota: Wisconsin, Iowa, South Dakota, and North Dakota.
- Minnesota and its neighboring states represent a broad range of economic policies. Minnesota

levies one of the highest top rates of income tax in the United States, South Dakota doesn’t levy one at all. Likewise, South Dakota levies no state corporate income tax, while Iowa’s rate is one of the highest in the United States.

- Minnesota compares most favorably with Wisconsin, although this comparison is distorted by the presence of significant geographic barriers and the Twin Cities. Only on business growth and poverty reduction does Wisconsin beat Minnesota between 2010 and 2018.
- Minnesota fares less well against its other neighbors. Against Iowa, Minnesota only wins on population growth and in seeing the median age of its population fall.
- Against South Dakota, Minnesota comes off even worse. Here, only on per capita Personal Income does our state score a win, but even here much of Minnesota’s growth was driven by increased transfer payments.
- Against North Dakota, Minnesota loses in every category except median age and the share of its population with bachelor’s degrees.
- These results suggest a reasonably strong effect of state economic policy on economic outcomes, and in particular, they support the consistent research finding that high taxes have significant negative effects on economic growth.

Headline Comparisons:

MINNESOTA VS WISCONSIN, IOWA, SOUTH DAKOTA, AND NORTH DAKOTA

	vs Wisconsin	vs Iowa	vs South Dakota	vs North Dakota
Population	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Median Age	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓
Bachelor’s Degrees	✓✓✓✓✓✓✓✓	TIE	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓
Business	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Jobs	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Personal Income	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗
Wages	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Poverty	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗



‘Laboratories of democracy’

Supreme Court Justice Louis Brandeis famously described the states of the union as “laboratories of democracy” where a “state may, if its citizens choose...try novel social and economic experiments without risk to the rest of the country.”

State governments have done just that as tax rates and regulatory burdens differ greatly across the United States. Minnesota and its neighbors—Wisconsin, Iowa, South Dakota, and North Dakota—offer good examples. As of January 2020, the top rate of state income tax ranged from 0 percent in South Dakota—it levies no state income tax—to 9.85 percent on income over \$164,400 in Minnesota, the fourth highest top rate in the country. Likewise, state corporate income tax rates range from 0 percent in South Dakota—it levies no state corporate income tax—to 12 percent on income over \$250,000 in Iowa, the highest top rate in the United States. Finally, state sales tax rates range from 4.5 percent in South Dakota to 6.875 percent in Minnesota, the sixth highest rate in the United States, albeit with many exemptions.¹ These five states are spread widely through rankings of state

Supreme Court Justice Louis Brandeis famously described the states of the union as “laboratories of democracy.”

tax regimes. The Tax Foundation’s 2020 State Business Tax Climate Index ranks Minnesota 45th, Iowa 42nd, Wisconsin 26th, North Dakota 16th, and South Dakota 2nd.²

Table 1 shows the variation in major tax rates among Minnesota and its neighbors in 2010 and 2018. Over this period, corporate tax rates and brackets in the states remained unchanged except for in North Dakota, where rates fell. The sales tax rate changed only in South Dakota, with a 0.5 percentage point increase. There is more variation when it comes to state income taxes. South Dakota’s remained unchanged at 0 percent and the thresholds for Iowa’s brackets were increased largely to guard against inflation. North Dakota retained five brackets but sharply reduced the rates and Wisconsin both lowered rates, albeit by less than North Dakota, and reduced the number of brackets. At the other end, Minnesota added a new top tax rate above its existing top rate. Overall, while South Dakota and Iowa saw little or no change in income taxes, Wisconsin and North Dakota both cut them and Minnesota increased them on the highest earners. It is worth noting, however, that Minnesota’s taxes

on its lower earning residents are also comparatively high. It levies a 5.35 percent tax on the first dollar of income, a rate that, in 2018, Wisconsin didn't levy until the resident earned \$11,230, Iowa didn't levy until the resident earned \$14,382, and North Dakota levied on nobody at all.

Overall regulatory burdens are harder to quantify. First, while we can count the number of regulations, it might be less burdensome for businesses to deal with 10 precisely worded regulations than a single vaguely worded one. Second, the regulatory burden is only partly a function of the wording of regulations: it is also a function of how zealously those regulations are enforced.

We can, though, quantify some specific regulations, such as the minimum wage. A state can impose its own, and where it doesn't do so or where its minimum wage is below the federal rate, the

federal rate is binding. As Figure 1 shows, in three of Minnesota's neighbors—Wisconsin, Iowa, and North Dakota—the federal minimum wage is the effective minimum wage in the state. This was the case in Minnesota until 2014 and South Dakota 2015, at which points the two states raised their minimum wage rates above the federal level.

The drawbacks of state-to-state comparisons

The "natural experiments" that such variations create allow us to assess the impacts of particular economic policies on economic performance. For example, economic outcomes in Minnesota and its neighbor, Wisconsin, are frequently compared, with observed differences being attributed to the differing policies of the two states. This was especially so after the elections in November 2010 of the Dem-

Income and Corporate Tax Rates and Brackets

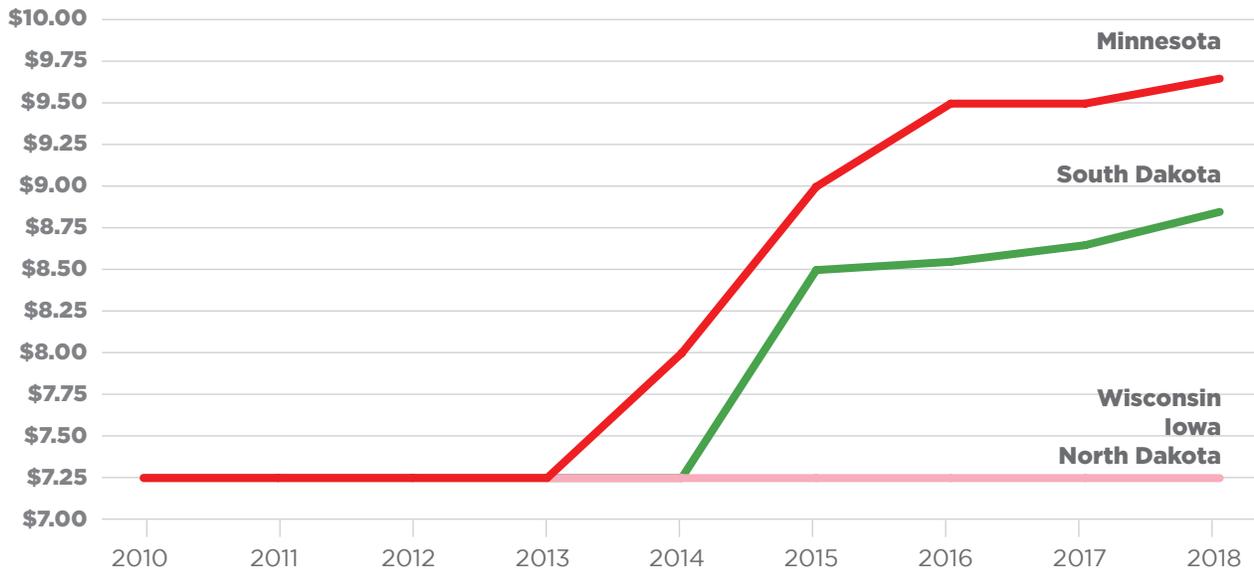
TABLE 1

Minnesota		Wisconsin		Iowa		South Dakota		North Dakota	
INCOME TAX		INCOME TAX		INCOME TAX		INCOME TAX		INCOME TAX	
2010	2018	2010	2018	2010	2018	2010	2018	2010	2018
5.35%.....\$0	5.35%.....\$0	4.60%.....\$0	4.00%.....\$0	0.36%.....\$0	0.36%.....\$0	0.00%	0.00%	1.84%.....\$0	1.10%.....\$0
7.05%.....\$22,770	7.05%.....\$25,890	6.15%.....\$10,220	5.84%.....\$11,230	0.72%.....\$1,407	0.72%.....\$1,598			3.44%.....\$34,000	2.04%.....\$38,700
7.85%.....\$74,780	7.85%.....\$85,060	6.50%.....\$20,440	6.27%.....\$22,470	2.43%.....\$2,814	2.43%.....\$3,196			3.81%.....\$82,400	2.27%.....\$93,700
	9.85%..\$160,020	6.75%...\$153,280	7.65%...\$247,350	4.50%...\$5,628	4.50%...\$6,392			4.42%...\$171,850	2.64%...\$195,450
		7.75%...\$225,000		6.12%...\$12,663	6.12%...\$14,382			4.86%...\$373,650	2.90%...\$424,950
				6.48%...\$21,105	6.48%...\$23,970				
				6.80%...\$28,140	6.80%...\$31,960				
				7.92%...\$42,210	7.92%...\$47,940				
				8.98%...\$63,315	8.98%...\$71,910				
CORPORATE TAX		CORPORATE TAX		CORPORATE TAX		CORPORATE TAX		CORPORATE TAX	
2010	2018	2010	2018	2010	2018	2010	2018	2010	2018
9.80%.....\$0	9.80%.....\$0	7.90%.....\$0	7.90%.....\$0	6%.....\$0	6%.....\$0	0.00%	0.00%	2.10%.....\$0	1.41%.....\$0
				8%.....\$25,000	8%.....\$25,000			5.30%.....\$25,000	3.55%.....\$25,000
				10%.....\$100,000	10%.....\$100,000			6.40%.....\$50,000	4.31%.....\$50,000
				12%.....\$250,000	12%.....\$250,000				
SALES TAX		SALES TAX		SALES TAX		SALES TAX		SALES TAX	
2010	2018	2010	2018	2010	2018	2010	2018	2010	2018
6.875%	6.875%	5.00%	5.00%	6.00%	6.00%	4.00%	4.00%	5.00%	5.00%

SOURCE: THE TAX FOUNDATION

State Minimum Wage Rates (Hourly)

FIGURE 1



SOURCE: DEPARTMENT OF LABOR

ocrat Mark Dayton as governor of Minnesota and Republican Scott Walker in Wisconsin. In a paper comparing Minnesota and Wisconsin’s economic performance since the 2010 gubernatorial elections, the Economic Policy Institute wrote: “The two states’ geographic proximity—as well as their similarities in population, demographics, culture, and industry composition—make comparing outcomes in Wisconsin versus Minnesota a useful natural experiment for assessing how state policy is affecting economic outcomes and residents’ welfare.”³

But this should not be pushed too far. There are significant differences even between states as similar as Minnesota and Wisconsin, besides state economic policy that could account for at least some of the differences in observed outcomes.

In the Twin Cities of St. Paul and Minneapolis, for example, Minnesota is home to the 15th largest Metropolitan Statistical Area (MSA) in the United States by Gross Domestic Product (GDP). The next largest MSA by GDP in Minnesota and its four

neighbors is Milwaukee, which ranks 37th nationally. While the share of Minnesota’s GDP that comes from its metropolitan areas (83 percent) is comparable to Wisconsin’s share (80 percent), that share is spread among five MSAs in Minnesota and 12 in Wisconsin. The Twin Cities MSA accounts for 71 percent of Minnesota’s GDP: the next closest in Minnesota and its four neighbors is, again, Milwaukee, which accounts for 31 percent of Wisconsin’s GDP. Simply put, none of Minnesota’s neighbors, not even its supposed “twin,” Wisconsin, has an urban area of comparable size to the Twin Cities.

This matters because big cities are engines of economic growth.⁴ Structural transformation (as labor moves from the agricultural sector to industry and services), agglomeration and scale economies as proximity and density reduce the per capita costs of providing infrastructure and services; and the creation of knowledge spillovers and specialization that enhance the productivity of

urban workers are among the facets of urbanization that drive economic growth. So, if we see relatively positive economic outcomes for Minnesota versus Wisconsin, this might be the result, not of superior state economic policy, but of the presence of a very large urban area. True, state policy can contribute to the rise or fall of cities, but this tends to happen over a term too long to be driven by a particular administration: the Twin Cities have been one of the 20 most populous metropolitan areas in the United States since 1880.⁵

The benefits of border county comparisons

To more accurately assess the impact of state economic policy, we want to exclude as many as possible of the non-policy factors that contribute to determining economic outcomes.

In *Why Nations Fail*, economists Daron Acemoglu and James A. Robinson illustrated the importance of institutions in driving economic outcomes by comparing living standards in Nogales, Arizona, in the United States, with those in Nogales, Sonora, in Mexico. The town is divided by an arbitrary line with economic outcomes, such as wages, household incomes, or GDP per capita, vastly different on either side. Many of the variables that could account for these differences—such as “geography, climate, or the types of diseases prevalent in the area”—can be assumed to be the same on both sides of the line and, so, can be excluded as causes of observed differences. What remains is what side of the line you are on, which determines the institutions you live under.⁶

We can achieve something similar, if less dramatic, by comparing neighboring counties in different American states. As with Nogales, we can assume that factors such as geography or demographics are fairly uniform between, say, Washington County in Minnesota and St. Croix County on the other side of the I-94 bridge in Wisconsin.

Analyzing border counties allows us to filter out some of the distorting effects like the pres-

ence of the Twin Cities. North Dakota illustrates this. In terms of economic growth, it has been the best performing state in the union in recent years with real GDP increasing by 40.3 percent between 2010 and 2018. But 34.3 percent of that growth comes from just two counties, McKenzie and Williams, which are at the heart of the Bakken oil fields. The choice of whether or not to develop natural resources is an aspect of state policy—as Minnesota’s hesitance to develop its non-ferrous mining demonstrates—but the allocation of such resources is driven by geology, not policy. It would be difficult to compare the economic performance of Minnesota—where real GDP growth was 17.2 percent between 2010 and 2018—with North Dakota’s and conclude that the Peace Garden State’s relative economic success was a result of superior state policy.

Fortunately, McKenzie and Williams counties are on the opposite side of North Dakota from its border with Minnesota. Because of this, differences in economic outcomes between Cass County in North Dakota and neighboring Clay County in Minnesota cannot be attributed to the geological windfall of the Bakken oil fields. While

the economies of Minnesota and North Dakota might be too different to compare too closely on a statewide basis, the same cannot be said about the economies of Moorhead and Fargo.

To assess more precisely the impact of state economic policy on economic outcomes, we will compare economic outcomes in the border counties of Minnesota with the outcomes in the border counties of its neighbors. To accomplish this, the Minnesota counties that border Wisconsin will be grouped together, the Wisconsin counties bordering Minnesota will be grouped together and the relative performance of the two groups will be compared. We will do this for Minnesota and each of its neighbors for the period from 2010 to 2018 when, as we saw in Table 1, economic policy differed greatly across these states. Table 2 shows what counties are in each group.

Analyzing border counties allows us to filter out some of the distorting effects like the presence of the Twin Cities.

The outcomes we will compare will fall into three broad categories: where people want to be, where businesses want to be, and how people’s living standards are impacted.

To look at where people want to be, we will use data on resident population from the Census Bureau. To get some idea of whether people are moving to or remaining in these areas because they anticipate opportunities, we will look at Census Bureau data on median age of the population. To understand how these movements are likely to impact the productivity of the labor force, we will use Census Bureau data on the share of the population with a bachelor’s degree or higher.

To see where businesses want to be, we will look at data on the number of private establishments from the Bureau of Labor Statistics (BLS). We will look at how successful these businesses

have been at expanding using BLS data on total employment and the composition of employment.

Finally, to measure people’s living standards, we will look at per capita Personal Income data from the Bureau of Economic Analysis. Personal Income contains income from three categories: labor income, capital income, and transfer income, and we will also look to see which of these categories has driven changes in total per capita Personal Income. We will also look at Census Bureau data on the number of people in poverty.

We will look primarily at growth rates and changes over the period 2010 to 2018. Levels of something like Personal Income can, as the size of the Twin Cities or the Bakken oil fields show, reflect policy choices or natural resource endowments of long ago. Rates of change, on the other hand, are more likely to reflect the impact of the particular policies we wish to assess.⁷ ■

The Border Counties

TABLE 2

Wisconsin		Iowa		South Dakota		North Dakota	
Minnesota	Wisconsin	Minnesota	Iowa	Minnesota	South Dakota	Minnesota	North Dakota
Carlton	Buffalo	Faribault	Allamakee	Big Stone	Brookings	Clay	Cass
Chisago	Burnett	Fillmore	Dickinson	Lac Qui Parle	Deuel	Kittson	Grand Forks
Dakota	Douglas	Freeborn	Emmet	Lincoln	Grant	Marshall	Pembina
Goodhue	La Crosse	Houston	Howard	Pipestone	Minnehaha	Norman	Richland
Houston	Pepin	Jackson	Kossuth	Rock	Moody	Polk	Traill
Pine	Pierce	Martin	Lyon	Traverse	Roberts	Wilkin	Walsh
St. Louis	Polk	Mower	Mitchell	Yellow Medicine			
Wabasha	St. Croix	Nobles	Osceloa				
Washington	Trempealeau	Rock	Winnebago				
Winona	Vernon		Winnesheik Worth				

SOURCE: CENTER OF THE AMERICAN EXPERIMENT



Minnesota vs Wisconsin

Factors

The border counties of Minnesota and Wisconsin are the most difficult to compare. This border is marked by the Mississippi and St. Croix rivers, which have only limited crossings, making movement from one side to the other more difficult. Because of this, the “policy space” which state governments have to work in before they lose economic activity to a neighboring jurisdiction is larger. An individual or business that might relocate across the border in response to a tax or minimum wage increase will face a higher cost of doing so. Consequently, response to policy can be expected to be more muted. Furthermore, the border is straddled by three MSAs: La Crosse, Minneapolis-St. Paul, and Duluth-Superior.

People

Between 2010 and 2018, Minnesota’s border counties performed better than Wisconsin’s when it came to attracting and/or retaining residents. As Figure 2 shows, over the period Minnesota’s population increased by 4.3 percent compared to 2.3 percent in Wisconsin. There was little differ-

ence in the age of the new residents (the median age in the Minnesota counties increased by 1.6 years and by 1.7 years in Wisconsin) and in the share with Bachelor’s degrees (up 3.6 percentage points in Minnesota from 32.0 percent to 35.6 percent and up 3.2 percentage points in Wisconsin, from 24.8 percent to 28.0 percent).

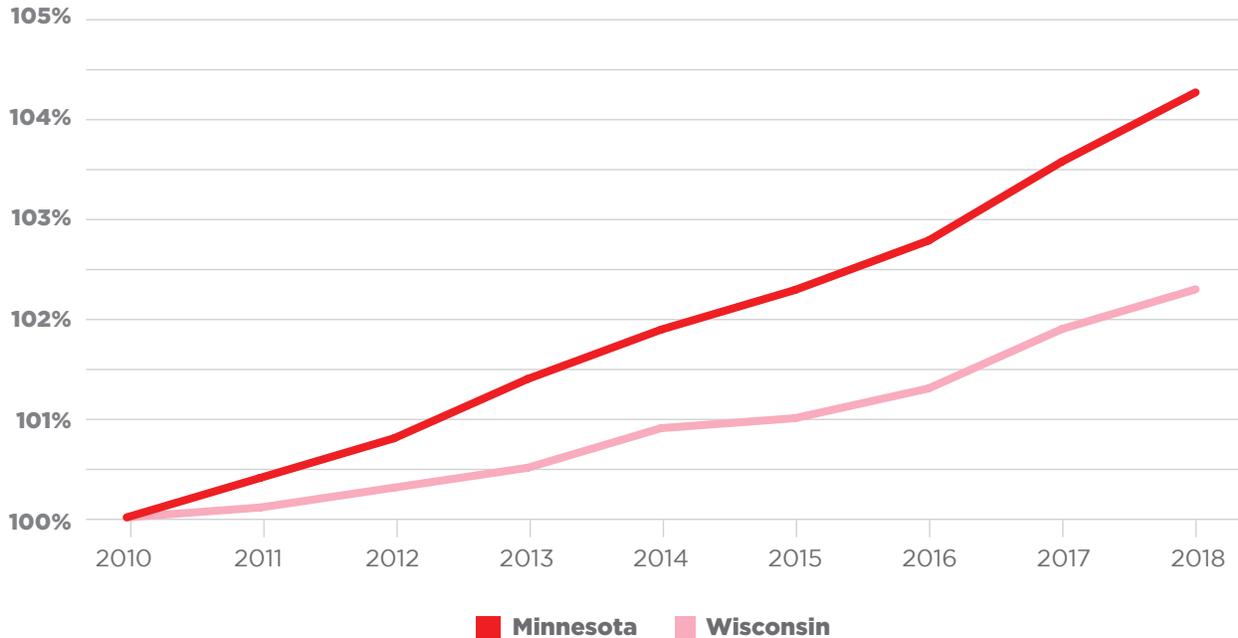
The border of Minnesota and Wisconsin is straddled by three MSAs: La Crosse, Minneapolis-St. Paul, and Duluth-Superior.

Population numbers underscore the dominance of the Twin Cities in the region’s economy. Minnesota’s border counties saw a net population increase of 47,432 between 2010 and 2018 but just two of the 10 counties contributed a net increase of 46,495 between them: Dakota and Washington, both part of the Twin Cities MSA. The effect

is so powerful that it carries over into Wisconsin. The border counties there saw a net population increase of 9,604, but St. Croix and Pierce counties, which are also part of the Twin Cities MSA, contributed a net increase of 6,769 towards this. Indeed, if we remove the four counties of the Twin Cities MSA from our numbers, Wisconsin’s border counties actually see faster net population growth over this period, 1.0 percent compared to 0.2 percent in Minnesota.

Percentage Change in Population, Minnesota and Wisconsin Border Counties

FIGURE 2



SOURCE: CENSUS BUREAU AND THE CENTER OF THE AMERICAN EXPERIMENT

By contrast, growth in the La Crosse MSA has not spread across the river from La Crosse County into neighboring Houston County in Minnesota. While the population of La Crosse County has increased by 2.9 percent, it shrank by 2.4 percent in Houston County. In Duluth-Superior, both St. Louis and Douglas counties have lost population with Douglas in Wisconsin faring worst: -2.1 percent to -0.2 percent.

Businesses

Minnesota's border counties have not been as attractive to businesses. As Figure 3 shows, the number of private establishments in the Wisconsin border counties rose by 11.6 percent between 2010 and 2018, compared to 4.3 in the Minnesota counties. It is interesting to note that, from 2010 to 2014, changes in the number of businesses in the

Minnesota and Wisconsin border counties more or less tracked each other, but from 2014 to 2016, Minnesota performed comparatively poorly.

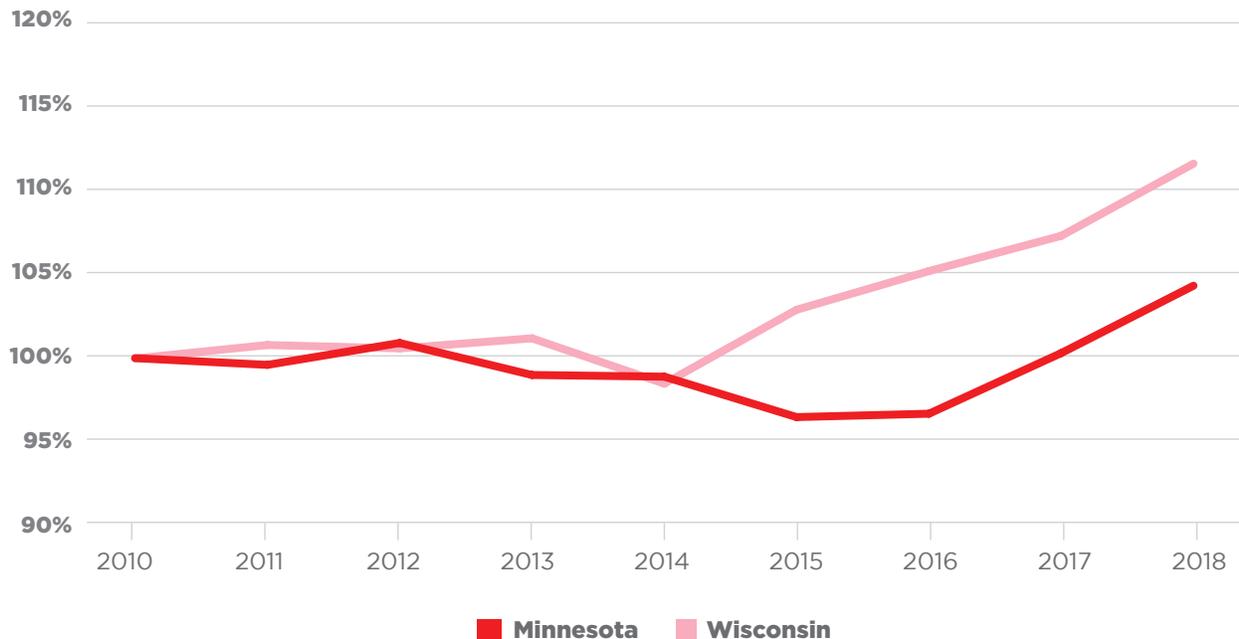
In terms of jobs, however, Minnesota wins again. In the Minnesota counties, total employment increased by 11.5 percent between 2010 and 2018 compared to 8.6 percent in Wisconsin. In neither group did the composition of employment by industrial sector change greatly over the period.⁸

Once again we see the importance of the Twin Cities metro in these figures. Minnesota's border counties have actually seen a net loss of businesses if we strip out Washington and Dakota counties. By contrast, every single Wisconsin border county has seen business growth. While Washington and Dakota counties account for almost all of the new businesses on

In the Minnesota counties total employment increased by 11.5 percent between 2010 and 2018 compared to 8.6 percent in Wisconsin.

Percentage Change in Private Establishments, Minnesota and Wisconsin Border Counties

FIGURE 3



SOURCE: BUREAU OF LABOR STATISTICS AND THE CENTER OF THE AMERICAN EXPERIMENT

the Minnesota side of the St. Croix, growth has been more evenly spread in Wisconsin. St. Croix and Pierce counties have seen faster rates of business growth—14.5 percent and 18.5 percent respectively—than Washington and Dakota counties, 11.9 percent and 6.7 percent respectively. Even so, the two Twin Cities counties in Wisconsin account for just 38.7 percent of business growth across the St. Croix, while the two Minnesota border counties in the Twin Cities MSA account for almost all the net business growth there. The story is the same with jobs. Dakota and Washington counties accounted for 78.2 percent of employment growth on the Minnesota side of the border, and St. Croix and Pierce counties saw 50.2 percent of the Wisconsin border counties' employment growth.

Both groups of counties managed to reduce the number of residents living in poverty: by 15.5 percent in Wisconsin and 15.1 percent in Minnesota.

Living standards

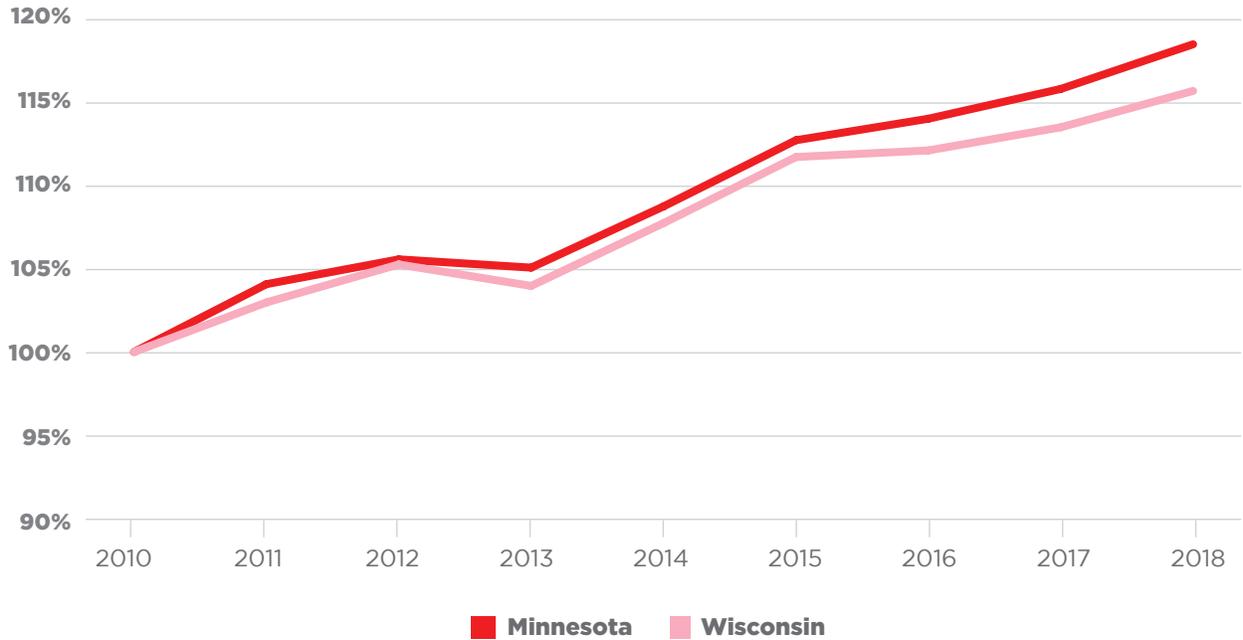
On per capita Personal Income, the Minnesota border counties have outperformed those in Wisconsin. As Figure 4 shows, both have seen a steady increase adjusted for inflation, 18.6 percent in Minnesota and 15.8 percent in Wisconsin. This gap has gotten wider since 2015.

In terms of the sources of this income, there is little difference between the two. The share of new Personal Income that came from each of the three sources—wages, capital, transfers—was more or less the same.

Both groups of counties managed to reduce the number of residents living in poverty: by 15.5 percent in Wisconsin and 15.1 percent in Minnesota. This greater rate of poverty reduction in the Badger state led to a closing of the gap in the poverty rate between the two. ■

Percentage Change in Real Per Capita Personal Income, Minnesota and Wisconsin Border Counties

FIGURE 4



SOURCE: BUREAU OF ECONOMIC ANALYSIS AND THE CENTER OF THE AMERICAN EXPERIMENT



Factors

By contrast with its border with Wisconsin, Minnesota's border with Iowa is easily crossed. This reduces the "policy space" within which policymakers can operate before economic actors move to other jurisdictions. As a result, we would expect to see greater sensitivity here, and on the Dakota borders, with economic outcomes responding more readily to state policy.

Minnesota's border with Iowa is the least urban of the four. The only county to belong to an MSA is Houston, which is part of the La Crosse MSA. This means that this border is freer of the distortions that large urban areas bring.

People

Between 2010 and 2018, both Minnesota's border counties and Iowa's lost residents, though the decline was slower on the Minnesota side of the border. As Figure 5 shows, over the period Minnesota's population fell by 1.1 percent while the fall in Iowa was 2.9 percent. While the decline in Iowa has been consistent over this period, in Minnesota it bottomed out in 2015 and has stabilized since.

The two groups of counties did equally well in

attracting graduates, each increasing the share of their population with Bachelor's degrees or higher by 3.1 percentage points over the period. There was also little difference in the age of the new residents on either side of the border: in both, the median age increased by less than a year.

Businesses

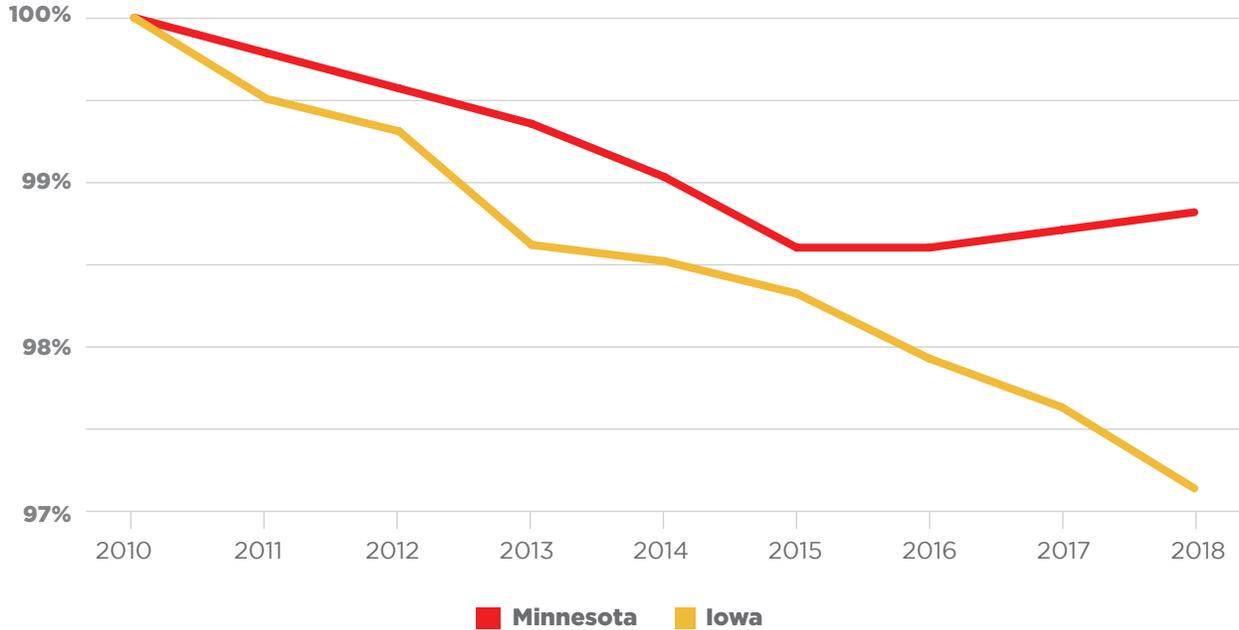
Between 2010 and 2018, Iowa's border counties proved more conducive to business than Minnesota's. As Figure 6 shows, over that period the number of private establishments in Iowa rose by 4.7 percent, compared to 1.3 in Minnesota. Again, it is worth noting the pattern. While Iowa's growth has been reasonably consistent, Minnesota saw a slump from 2012 to 2016 followed by a strong recovery.

The businesses in the Iowa counties have also generated more new jobs than those on the Minnesota side of the border. Between 2010 and 2018, total employment increased by 6.3 percent in Iowa compared to 0.8 percent in Minnesota, although it has decreased in both since 2016. While job growth has been spread fairly evenly among the Iowa counties, Rock County,

Minnesota's border with Iowa is the least urban of the four. The only county to belong to an MSA is Houston, which is part of the La Crosse MSA.

Percentage Change in Population, Minnesota and Iowa Border Counties

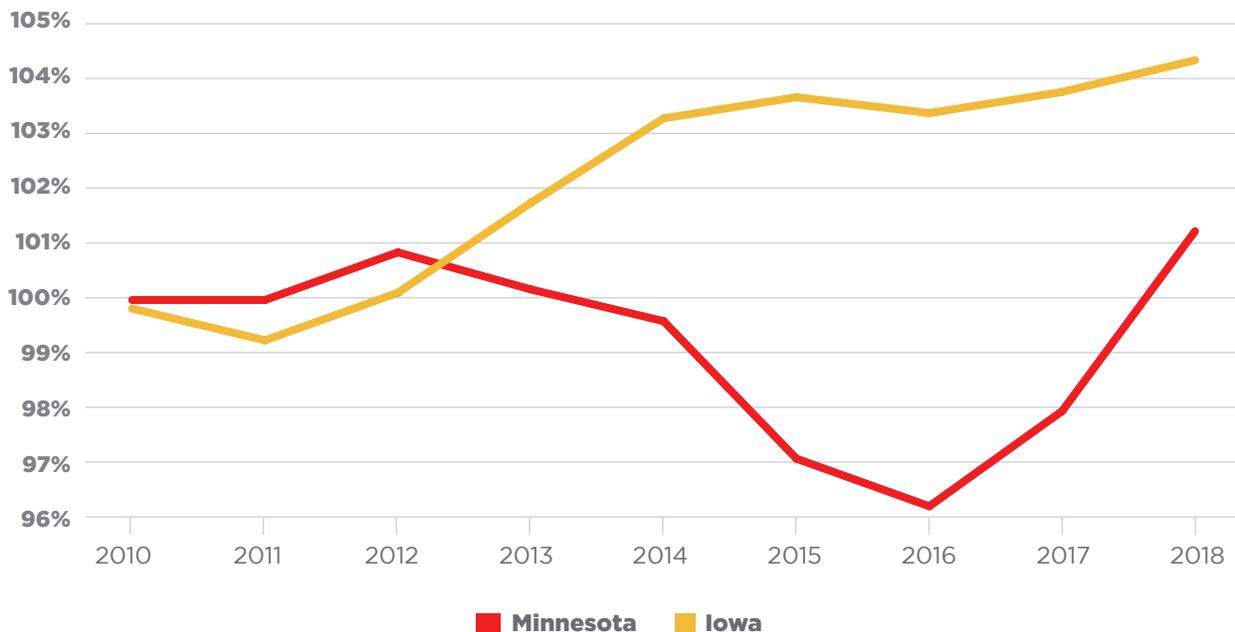
FIGURE 5



SOURCE: CENSUS BUREAU AND THE CENTER OF THE AMERICAN EXPERIMENT

Percentage Change in Private Establishments, Minnesota and Iowa Border Counties

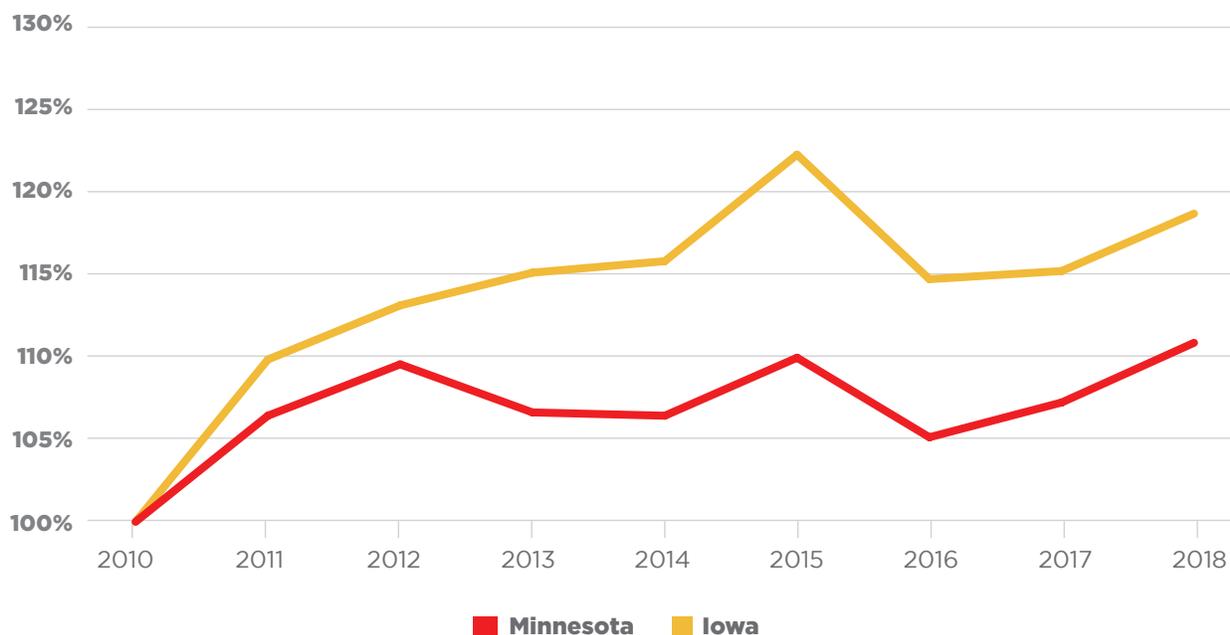
FIGURE 6



SOURCE: BUREAU OF LABOR STATISTICS AND THE CENTER OF THE AMERICAN EXPERIMENT

Percentage Change in Real Per Capita Personal Income, Minnesota and Iowa Border Counties

FIGURE 7



SOURCE: BUREAU OF ECONOMIC ANALYSIS AND THE CENTER OF THE AMERICAN EXPERIMENT

which abuts Iowa and South Dakota, accounts for 85.1 percent of the net job growth in the Minnesota counties. In neither group did the composition of employment by industrial sector change greatly over the period.

Living standards

Iowa's border counties have outperformed Minnesota's when it comes to per capita Personal Income, as Figure 7 shows. Adjusted for inflation, growth was 18.8 percent in Iowa from 2010 to 2018 and 10.8 percent in Minnesota. Both have followed a similar general pattern with a peak in 2015, but Iowa's rates of growth have generally been higher.

An interesting difference arises when we look at where this new Personal Income has come from. In the Minnesota counties, per capita net earnings by place of residence—wages—have increased by just 2.3 percent in real terms between 2010 and 2018. The figure for the Iowa counties, by contrast, was

14.8 percent. As a result, while increased wages accounted for 45.6 percent of the increase in per capita Personal Income in Iowa, in Minnesota they accounted for just 13.2 percent of the rise. Of Minnesota's increase, 68.5 percent came from growth in dividend income, but this was largely down to its poor performance in the other two categories: dividend income grew by 46.2 percent in Minnesota and 44.4 percent in Iowa.

Both groups of counties saw the number of residents living in poverty decline, but Iowa performed better. There, the number of people in poverty fell by 8.9 percent compared to 4.4 percent in Minnesota. That, though, is partly a function of the relatively greater decline in the Iowa counties' population: as there are fewer people in general so there are fewer people in poverty. Even so, the Iowa counties saw their share of the population in poverty fall by 1.2 percentage points compared to 1.1 percentage points in the Minnesota counties. ■



Factors

Like Minnesota’s border with Iowa, its border with South Dakota is easily crossed and includes no barriers such as the Mississippi and St. Croix. In the same way, this reduces the “policy space” within which policymakers can operate before economic actors cross the border. Again, this would lead us to expect to see greater sensitivity here, with economic outcomes responding more readily to state policy.

Just inside South Dakota, in Minnehaha County, is Sioux Falls. This is the 140th most populous city in the United States and is classed as an MSA. We would expect to see here, albeit on a smaller scale, the same sorts of distorting effects we see from the Twin Cities on the Minnesota-Wisconsin border.

People

The contrast in population change between the Minnesota and South Dakota border counties is striking. As Figure 8 shows, between 2010 and 2018, the resident population in South Dakota

increased by 11.4 percent while in Minnesota it fell by 5.3 percent. The trends have been fairly consistent in both groups of counties over this period.

We do, indeed, see an urban effect here. Minnehaha County accounts for 87.2 percent of the net population growth on the South Dakota side of the border. But, whereas growth in the Twin Cities

has spilled over into Pierce and St. Croix counties in Wisconsin, Minnehaha County’s growth has not done anything for its Minnesota neighbor, Rock County, which saw its population fall as that of Minnehaha’s boomed. Indeed, the population fell in each of the seven Minnesota counties bordering South Dakota. On the South Dakota side, the popula-

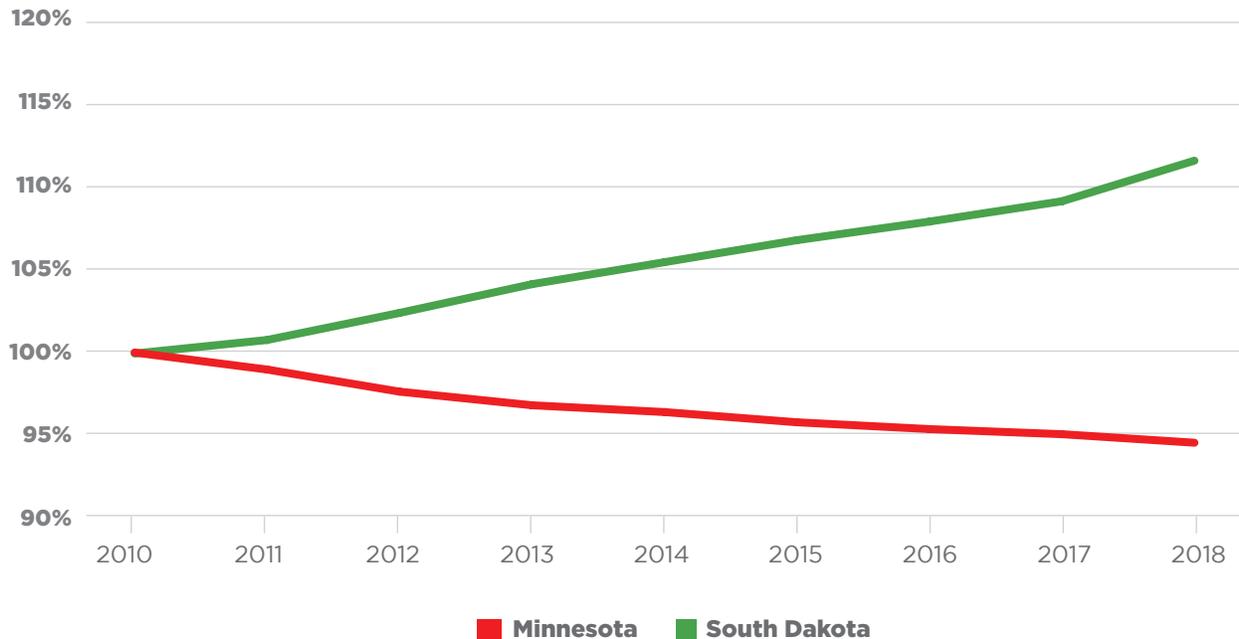
tion rose in four of the six counties, with non-urban Brookings also registering strong growth.

The two groups of counties have succeeded in increasing the share of their populations with bachelor’s degrees, although the South Dakota counties shade it. There, the share of the population with such qualifications has risen by 2.8 percentage points (from 28.7 percent in 2010 to

Just inside South Dakota, in Minnehaha County, is Sioux Falls. This is the 140th most populous city in the United States and is classed as an MSA.

Percentage Change in Population, Minnesota and South Dakota Border Counties

FIGURE 8



SOURCE: CENSUS BUREAU AND THE CENTER OF THE AMERICAN EXPERIMENT

31.5 percent in 2018) compared to 2.4 percent on the Minnesota side (from 16.7 percent to 19.0 percent). The South Dakota counties have also done better at attracting or retaining young residents. On their side of the border, the median age dropped from 34.4 in 2010 to 34.3 in 2018 compared to a rise from 44.2 to 44.6 on the Minnesota side. These might not sound like large movements, but it ought to be noted that the South Dakota border counties are the first we have encountered to see their median age fall—indeed, for the United States generally, the median age rose from 37.2 to 38.2 between 2010 and 2018.

Businesses

South Dakota's border counties have also outperformed Minnesota's when it comes to business growth, although the story is much less dramatic. As Figure 9 shows, from 2010 to 2018, the number of private establishments in South Dakota edged

up by 1.7 percent, in Minnesota the figure was 0.1 percent. Indeed, this increase comprises two establishments. The pattern is similar to that for businesses in the Minnesota-Iowa border counties. We see fairly steady growth on the South Dakota side of the border, but a slump on the Minnesota side, which bottoms out in 2014 followed by recovery.

Again, Sioux Falls was the driver, with Minnehaha County accounting for 64.7 percent of the net increase in businesses. But Brookings County was responsible for 32.3 percent, suggesting a broader base of growth on the South Dakota side of the border.

As these numbers suggest, South Dakota's border counties have done much better at generating jobs. Between 2010 and 2018, total employment on the Mount Rushmore State's side of the border has increased by 12.3 percent compared to a decline of 1.0 percent in the Gopher State. Again, we see

the potency of urban areas, with Minnehaha County, home of Sioux Falls, accounting for 86.2 percent of the net job growth, but, again, Brookings County also performed well, generating 12.8 percent of the net change. Manufacturing employment has fallen so steeply on the Minnesota side of the border—by 23.2 percent—that the share of employment it accounts for has fallen by 2.6 percentage points.

Living standards

Minnesota's border counties finally score a win over South Dakota's with per capita Personal Income. As Figure 10 shows, on the Minnesota side of the border, per capita Personal Income grew by 15.4 percent in real terms between 2010 and 2018 compared to 9.7 percent in South Dakota.

A more ambiguous picture emerges if we look at how the components of Personal Income have changed in the two areas. Net earnings by place of residence—wages—in the Minnesota counties, for example, increased by 4.7 percent in real terms from 2010 to 2018 but by 8.0 percent in the South Dakota counties. There are further discrepancies with the growth of income from “dividends, interest, and rent,” which was 18.8 percent in South Dakota

but 65.1 percent in Minnesota, and “personal current transfer receipts,” which increased by 13.4 percent in Minnesota and 4.9 percent in South Dakota. The result is that 16.8 percent of the increase in per capita Personal Income in Minnesota came from wages, while the figure was 54.7 percent in South Dakota. This would seem consistent with the better business environment indicated by South Dakota's superior record on business growth and job creation.

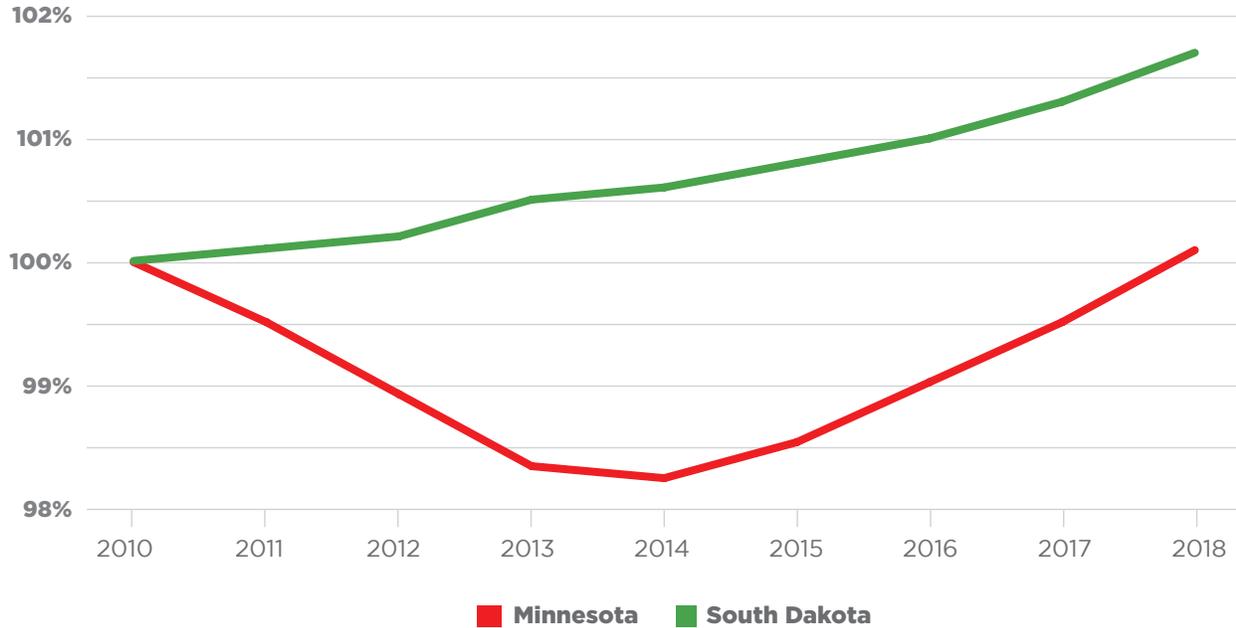
Minnesota has seen a greater decline in the number of residents in poverty on its side of the border than South Dakota has—10.8 percent to 8.6 percent. But again, as with Iowa, this has to be seen in the context of a declining population on the Minnesota side and a rising one on the

South Dakota side. Even as their population has expanded, the share of the South Dakota counties' population living in poverty has fallen by 2.2 percentage points, from 12.2 percent to 10.0 percent. In Minnesota, the fall was only 0.6 percent, from 10.9 percent to 10.2 percent. Minnesota started the period with a lower rate of poverty than the South Dakota counties and ended with a higher one. ■

On the Minnesota side of the border, per capita Personal Income grew by 15.4 percent in real terms between 2010 and 2018 compared to 9.7 percent in South Dakota.

Percentage Change in Private Establishments, Minnesota and South Dakota Border Counties

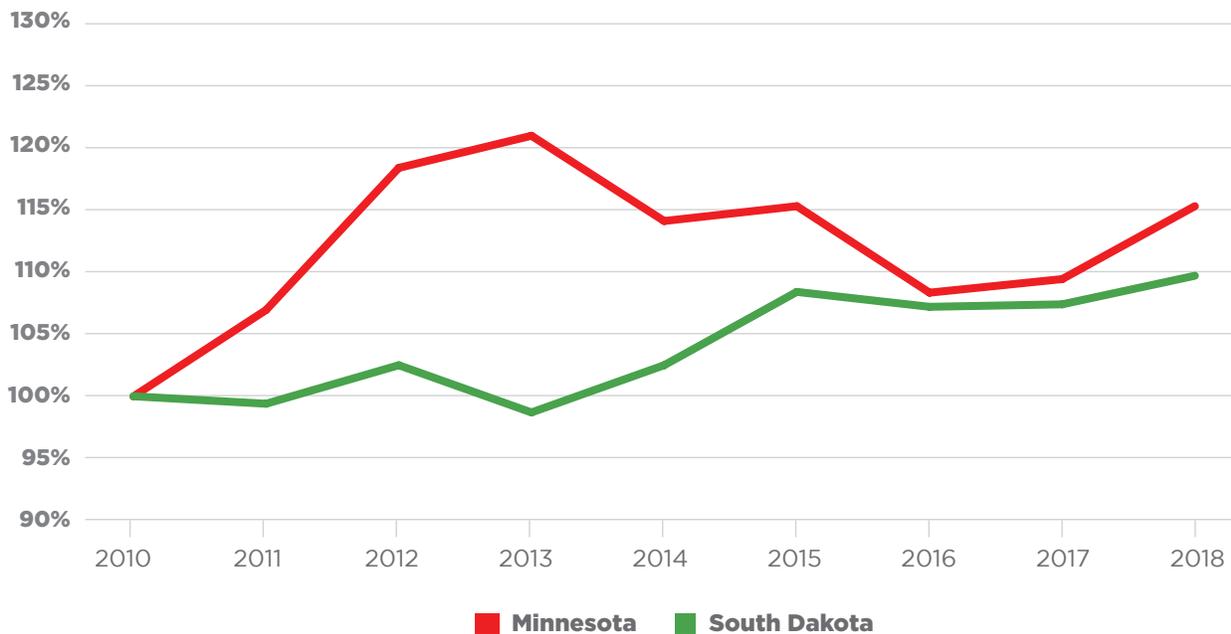
FIGURE 9



SOURCE: BUREAU OF LABOR STATISTICS AND THE CENTER OF THE AMERICAN EXPERIMENT

Percentage Change in Real Per Capita Personal Income, Minnesota and South Dakota Border Counties

FIGURE 10



SOURCE: BUREAU OF ECONOMIC ANALYSIS AND THE CENTER OF THE AMERICAN EXPERIMENT



Factors

Minnesota’s border with North Dakota is much like its borders with Iowa and South Dakota. There are no particular geographic barriers such as there are between Minnesota and Wisconsin. Once again, this ought to reduce the “policy space” available to policymakers to operate in without economic actors crossing the border. As in the previous two cases, we would expect to see greater sensitivity here, with economic outcomes responding more readily to state policy.

One interesting feature of the Minnesota-North Dakota border is the presence of two MSAs straddling it. The Fargo-Moorhead MSA contains Clay County in Minnesota and Cass County in North Dakota and ranks 175th of the 384 MSAs by GDP. The Grand Forks MSA includes Polk County in Minnesota and Grand Forks County in North Dakota and ranks 324th. This even balance provides a good study.

People

Between 2010 and 2018, Minnesota’s border counties gained residents at a slower rate than North Dakota’s, as Figure 11 shows. Over the period, North Dakota saw its population increase by 13.1 percent while the increase in Minnesota was just 3.1 percent. While Minnesota’s growth has been

steady, North Dakota experienced a sharp increase between 2011 and 2013. On the North Dakota side of the border, all of the net gain in population came from the two urban counties, Cass and Grand Forks—every other North Dakota border county lost residents. On the Minnesota side, Clay County in the Fargo-Moorhead MSA accounted for the entirety of the population growth, and Polk County actually lost residents unlike Grand Forks County, its twin in that MSA.

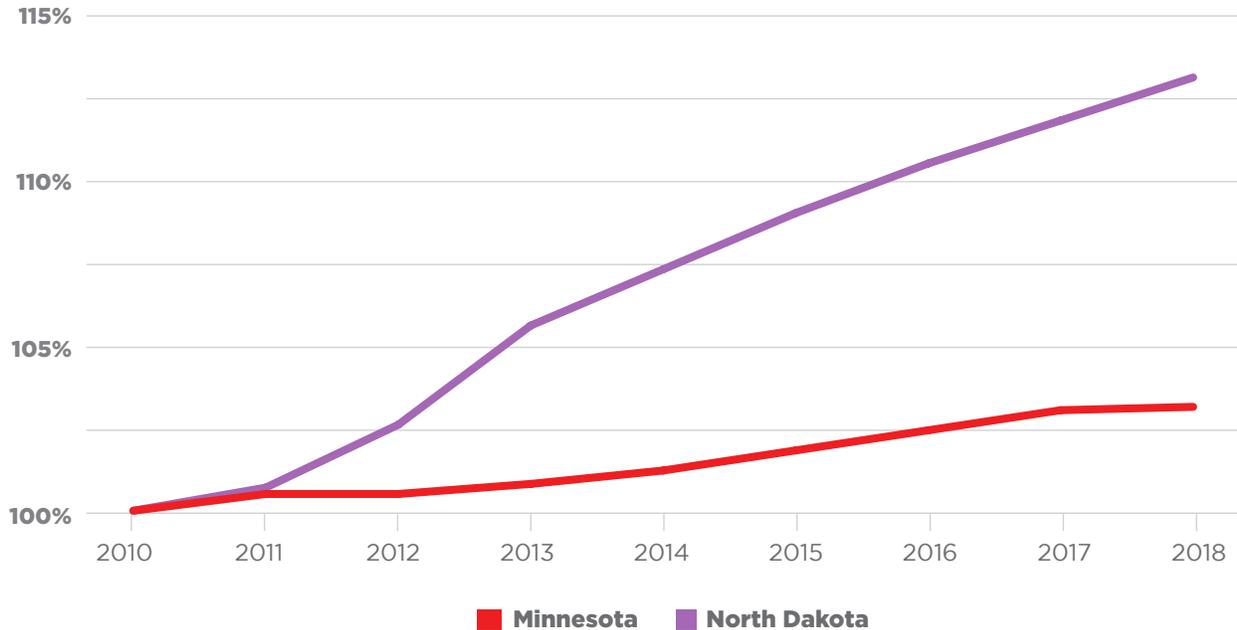
Minnesota scores better on our other two population measures. It increased the share of its population with bachelor’s degrees by 3.1 percentage points between 2010 and 2018, from 25.2 percent to 28.3 percent, compared to growth of 2.7 percentage points in North Dakota, from 33.0 percent to 35.6 percent. The Minnesota counties also saw their median age edge down—an unusual result, as noted above—by 0.5 years from 37.2 to 36.7, compared to a slight increase in the North Dakota counties of 0.3 years, from 32.7 to 32.9.

Businesses

Minnesota’s border counties lose out again to North Dakota’s when it comes to business growth. As Figure 12 shows, between 2010 and 2018, the number of private establishments in Minnesota increased by 1.2 percent compared to 2.5 percent

Percentage Change in Population, Minnesota and North Dakota Border Counties

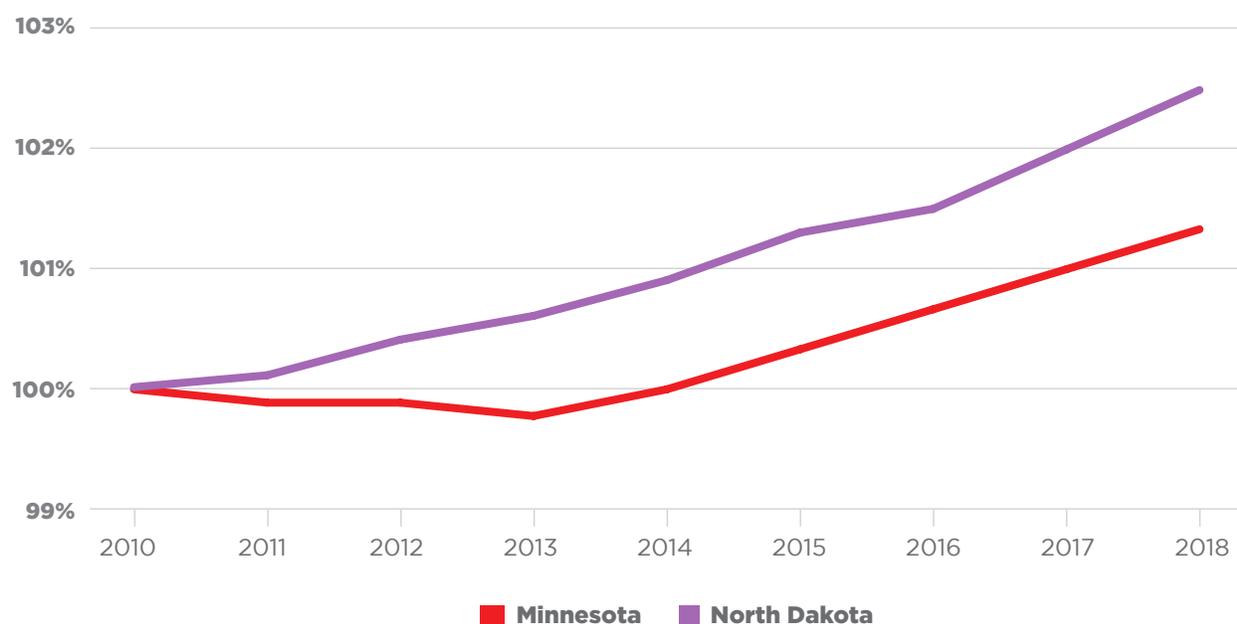
FIGURE 11



SOURCE: CENSUS BUREAU AND THE CENTER OF THE AMERICAN EXPERIMENT

Percentage Change in Private Establishments, Minnesota and North Dakota Border Counties

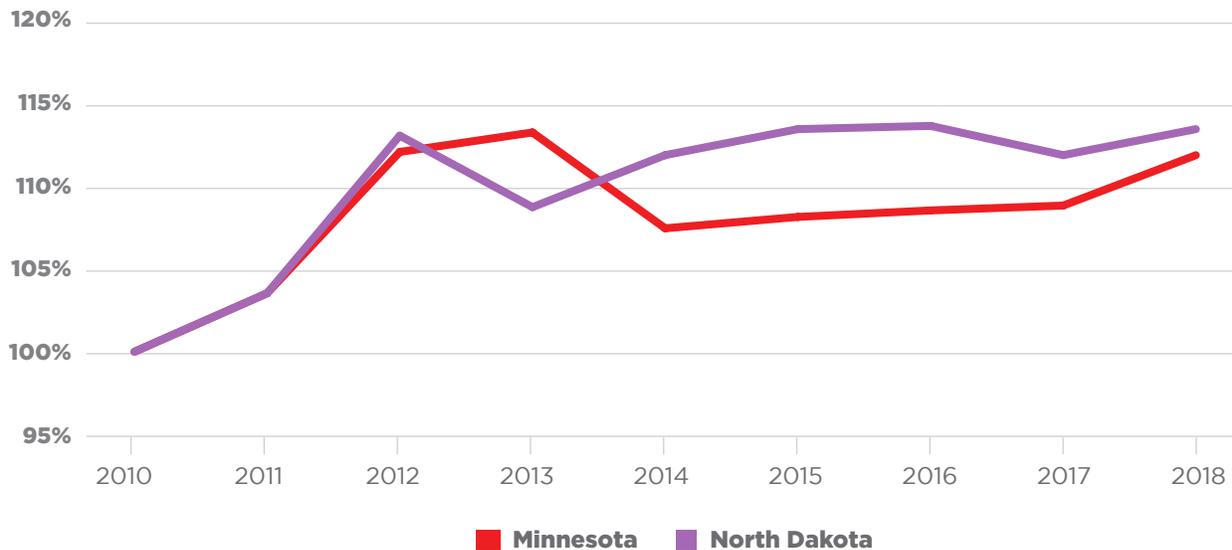
FIGURE 12



SOURCE: BUREAU OF LABOR STATISTICS AND THE CENTER OF THE AMERICAN EXPERIMENT

Percentage Change in Real Per Capita Personal Income, Minnesota and North Dakota Border Counties

FIGURE 13



SOURCE: BUREAU OF ECONOMIC ANALYSIS AND THE CENTER OF THE AMERICAN EXPERIMENT

in North Dakota. Minnesota’s business growth stagnated between 2010 and 2013 but has picked up since. It is interesting to note that where Cass County in North Dakota has seen business growth, its Fargo-Moorhead MSA twin, Clay County in Minnesota, is the only one among that group to see its number of businesses decline.

The North Dakota counties’ businesses have also generated more jobs. Total employment grew by 13.3 percent on that side of the border compared to 2.1 percent in Minnesota. In both cases, the urban counties accounted for the vast majority of the net growth. The Minnesota counties saw a “significant” 2.0 percentage point decline in the “leisure and hospitality” share of total employment.

Living standards

North Dakota scores another win over Minnesota with the growth of per capita Personal Income between 2010 and 2018. As Figure 13 shows, there it increased by 13.7 percent in real terms, compared to 12.1 percent in Minnesota. The trend is notably erratic in both groups of counties and the patterns

of growth seem to match each other, suggesting a high degree of economic integration.

Looking at where this new Personal Income arises from, we see that trends in the two groups match each other quite closely. In each, the growth of wage income, capital income, and transfer income is more or less the same. The Minnesota counties lead slightly in growth rates of capital and transfer income, but North Dakota records a win in growth of wage income which more than offsets these; hence, its win overall.

North Dakota’s border counties have also done a better job of poverty reduction than Minnesota’s. In 2010, the share of the population living in poverty on the North Dakota side of the border was 12.2 percent compared to 11.2 in Minnesota. Between then and 2018, however, the share of the population living in poverty fell by 0.3 percentage points in the Minnesota counties and 1.6 percentage points in the North Dakota ones. The result was that, as with South Dakota, Minnesota started the period with a lower rate of poverty and ended with a higher one. ■

Conclusions

No single one of these measures tells you “the” story of how state policy affects the economy. What we need to do, having pulled the data together, is to step back and see the big picture. Table 3 does that by summarizing the data.⁹ Where Minnesota performs better, the box is green. Where its neighbor performs better, the box is red.

We see that Minnesota performs best against Wisconsin. The picture is somewhat different when we look at the other borders, where the distorting effects of a large MSA are mostly absent and where the borders are more porous. Minnesota loses to Iowa and North Dakota and fairly comprehensively to South Dakota.

What do we see when we compare these observed results to state economic policies, particularly the tax policies in Table 1? The state that Minnesota fares best against, Wisconsin, is one that was ranked as a lower tax state and, over this period, both lowered its income tax rates but also reduced the number of brackets. This would seem to run against the consistent research finding that high

taxes have significant negative effects on economic growth.¹⁰ But bear in mind that the Twin Cities MSA—a legacy of past development, not of current policy—straddles this border and drives much of Minnesota’s strong performance here. Also, a lesser factor, the rivers Mississippi and St. Croix run along much of it, expanding the “policy space.”

The other comparisons support that consistent research finding. When we compare the performance of Minnesota—where taxes are high on all and the top rate was increased—to Iowa, where a lighter tax burden was largely held, Minnesota loses. When we compare Minnesota’s performance to North Dakota, where taxes were lower and were cut, it loses handily. And when we compare Minnesota’s performance to South Dakota’s, where a light tax burden was maintained throughout this period, Minnesota loses very badly. Taken together, these results suggest a reasonably strong effect of state economic policy on economic outcomes, and in particular, they support the consistent research finding that high taxes have significant negative effects on economic growth. ■

Headline Comparisons: Minnesota vs Wisconsin, Iowa, South Dakota, and North Dakota

TABLE 3

	vs Wisconsin	vs Iowa	vs South Dakota	vs North Dakota
Population	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Median Age	✓✓✓✓✓✓✓✓	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓
Bachelor’s Degrees	✓✓✓✓✓✓✓✓	TIE	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓
Business	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Jobs	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Personal Income	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗
Wages	✓✓✓✓✓✓✓✓	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗
Poverty	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗	✗✗✗✗✗✗✗✗

SOURCE: CENTER OF THE AMERICAN EXPERIMENT

Endnotes

1 Janelle Cammenga, "Facts & Figures 2020," The Tax Foundation, Washington, D.C., 2020.

2 Jared Walczak, "2020 State Business Tax Climate Index," The Tax Foundation, Washington, D.C., 2019.

3 David Cooper, "As Wisconsin's and Minnesota's lawmakers took divergent paths, so did their economies: Since 2010, Minnesota's economy has performed far better for working families than Wisconsin's," Economic Policy Institute, Washington D.C., 2018.

4 Michael A. Cohen et al., "Urban Policy and Economic Development: An Agenda for the 1990s," World Bank, Washington D.C., 1991; Gilles Duranton, "Cities: Engines of Growth and Prosperity for Developing Countries?" Commission on Growth and Development, Washington D.C., 2008; Spence et al., "Urbanization and Growth," Commission on Growth and Development, Washington D.C., 2009; Floater et al., "Cities and the New Climate Economy: the transformative role of global urban growth," Global Commission for the Economy and Climate, London, 2014; Gouldson et al., "Exploring the economic case for climate action in cities," *Global Environmental Change*, Vol. 35, November 2015, pp. 93-105.

5 Campbell Gibson and Kay Jung, "Historical Census Statistics On Population Totals By Race, 1790 to 1990, and By Hispanic

Origin, 1970 to 1990, For Large Cities And Other Urban Places In The United States," Census Bureau Population Division Working Paper, No. 76, February 2005.

6 Daron Acemoglu & James A. Robinson, *Why Nations Fail* (Profile Books, London), 2012.

7 Economists Randall G. Holcombe and Donald J. Lacombe previously used data from border counties to assess the impact of state income taxes on per capita income growth; see Randall G. Holcombe and Donald J. Lacombe, "The Effect of State Income Taxation on Per Capita Income Growth," *Public Finance Review*, Vol. 32, No. 3, May 2004, pp. 292-312.

8 Defined as greater than a 2.0 percentage point change in that sector's share of total employment.

9 Population: Change in total 2010-2018; Median age: Fall 2010-2018; Bachelor's degrees: Change in share of population 2010-2018; Businesses: Change in total 2010-2018; Jobs: Change in total 2010-2018; Per capita Personal Income: Change in total 2010-2018; Wages: Change in net earnings by place of residence 2010-2018; Poverty: Change in share of population 2010-2018.

10 William MacBride, "What Is the Evidence on Taxes and Growth?" The Tax Foundation, Washington, D.C., 2012.





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