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MINNESOTA'S ECONOMY: MEDIOCRE PERFORMANCE THREATENS THE STATE'S FUTURE

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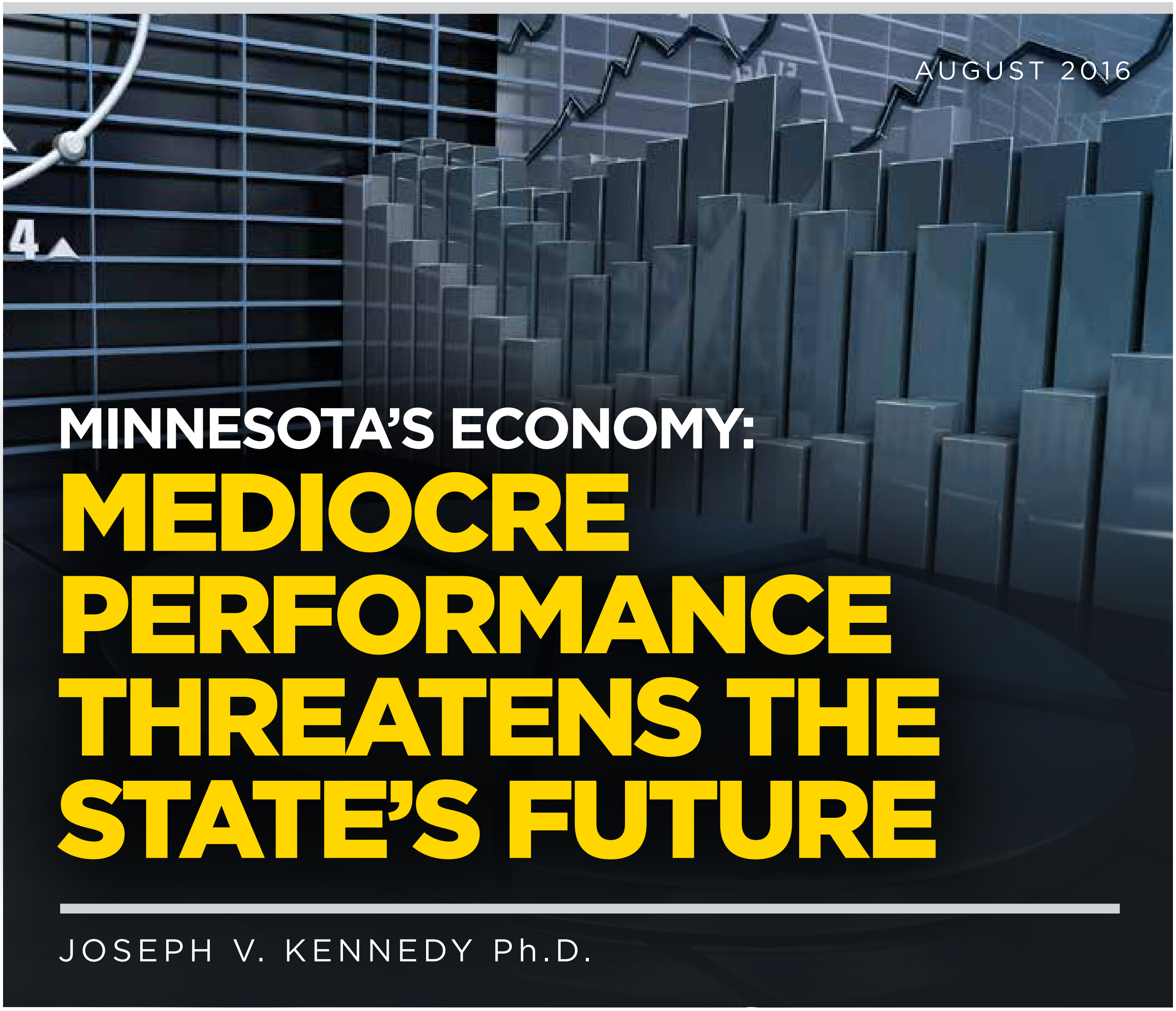

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Executive Summary

Many Minnesotans believe that their state's economy performs well above the norm, and therefore vindicates the "blue state" policies that, for the most part, have prevailed in Minnesota for a number of years. Unfortunately, a systematic review of the facts does not bear this assumption out. On the contrary, the data show that Minnesota's economy has been average, at best, over the past 15 years.

Worse, leading indicators are nearly all pointing downward. If nothing changes, Minnesotans can expect their economy to perform below average in the years to come. Indeed, this is exactly what the state's own agencies currently project.

Specifically, a thorough analysis of a broad range of economic data shows that:

- **Minnesota's economic growth is now just average while productivity continues to be below average.** Minnesota's growth in gross domestic product (GDP), the most basic measure of economic success, historically grew a touch faster than the U.S. However, from 2000 to the present, Minnesota's GDP growth settled to just average with the U.S. Looking at GDP per worker, the average Minnesota worker in private industry, in both goods producing and service producing sectors, is less productive than the average American worker.

Areas where Minnesota looks strong are driven primarily by Minnesotans' work ethic rather than by a dynamic economy.

- **Most states have done better than Minnesota in both income growth and job growth from 2000 to the present.** Minnesota ranks 30th in per capita income growth, 34th in growth in disposable income, and 28th in rate of job creation.

- **The Twin Cities rank average or below average among major urban areas in economic growth and job creation.** The Twin Cities area ranks ninth out of the largest 15 metropolitan areas in growth in economic output since 2001, and eighth out of 15 in job creation.

- **Areas where Minnesota looks strong are driven primarily by Minnesotans' work ethic rather than by a dynamic economy.** Minnesotans have higher than average per capita incomes. This is largely because, compared with other states, more Minnesotans are in the labor force. Similarly, Minnesota has higher than average household incomes, mostly because the state has more two-earner households.

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While in the recent past Minnesota's economic performance has been mediocre, numerous danger signals indicate an even weaker future unless policy changes are made.

- **In recent years, Minnesota's job growth has centered on less productive jobs.** It is clear that the jobs being created are not necessarily the most valuable. In some occupations with a high impact on GDP, such as mining, information and utilities, the number of jobs has stagnated or even fallen. In contrast, the fastest growing occupations, health care and educational services, have a relatively low impact on GDP. For as long as this continues to be the case, net job growth may not imply rising average incomes.

- **Minnesota's high-technology employment is declining.** In 2015, there were fewer Minnesotans working in high-tech jobs than there had been in 2000, both in absolute numbers and as a percentage of the work force.

- **Minnesota is suffering a dangerous decline in entrepreneurial activity.** Venture capital is declining. New firm formation is falling. In addition, the rate of new entrepreneurs is below the national average and dropping.

- **Productive Minnesotans are leaving the**

state, while residents of other states are not choosing to move to Minnesota. Every year, Minnesota suffers a net out-migration of thousands of households to other states. In 2014, the net household income lost in this out-migration was $948 million, a figure that has been rising steadily. Minnesota now ranks 47th among the states as a net destination for households with incomes over $200,000. The overwhelming majority of this loss of Minnesota residents is to lower-tax states.

- **Minnesota's own agencies predict the state's future performance to be below average.** Minnesota Management and Budget projects growth in personal income and jobs to be lower than the national average in each of the next four years. The Minnesota Department of Employment and Economic Development projects that in the ten years from 2014 to 2024, Minnesota will underperform the nation with respect to job creation in 19 of the 22 major job categories.

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For most of its history, Minnesota has enjoyed a strong and diverse economy. That history built up a high standard of living. Minnesota has long held key advantages that should contribute to a more productive and prosperous economy. Minnesota is among the nation's leaders in educational attainment, family cohesion, workforce participation, health, cultural amenities and low crime. Minnesota also possesses abundant agricultural, mining, and timber resources.

Despite all of these advantages and the state's prosperous past, the analysis of Minnesota's economy reviewed here shows that Minnesota's recent economic performance is mediocre. Worse, data show a declining level of business creation, entrepreneurship, investment and job growth in key industries, all of which weaken future growth prospects. It seems clear that if the state continues on its present course, its economic performance will soon lag well behind that of most other states. Indeed, lagging growth is exactly what official economic projections predict will happen.

Data show a declining level of business creation, entrepreneurship, investment and job growth in key industries, all of which weaken future growth prospects.

Are Minnesota's blue-state policies responsible for its economic underperformance? There is no question Minnesota's higher tax and regulatory burdens add to the cost of doing business. In recent years, Minnesota has increased these burdens while a number of other states, such as North Carolina, Indiana and Tennessee, have taken serious steps to reduce them. Without any other obvious weak points—beyond the inescapable realities of the state's northern locale—Minnesota's tax and regulatory burdens are among the only suspects at the scene of Minnesota's mediocre economic performance.

The chart on the following page briefly summarizes the data presented in this report, and classifies Minnesota's performance as above average, average, or below average:

SUMMARY		U.S.	MN	
Output	GDP, 15-yr. Trend	26.9%	26.0%	**Average**
	Private Sector Productivity (GDP/Worker), 2015	$117,706	$110,934	**Below Average**
	Private Sector Productivity (GDP/Worker), 15-yr. Trend	20.6%	21.0%	**Average**
Income	Per Capita Income, 2015	$47,669	$50,541	**Above Average**
	Per Capita Income, 15-yr. Trend	13.2%	13.6%	**Average**
	Average Wage, 2015	$52,937	$53,519	**Average**
	Average Wage, 15-yr. Trend	49.8%	51.0%	**Average**
Employment	Jobs, 15-yr. Trend	7.5%	6.4%	**Below Average**
	Unemployment Rate, 2015	5.3%	3.7%	**Above Average**
	Labor Force Participation Rate, 2015	62.7%	70.2%	**Above Average**
Leading Indicators	Percent of Employment in New and Young Firms, 2013	11%	9%	**Below Average**
	Rate of New Entrepreneurs, 2014	0.31%	0.17%	**Below Average**
	Percent of Earnings from Non-Farm Proprietors, 15 Largest Metros and MSP	13.1%	9.6%	**Below Average**
	Venture Capital as a Share of Earnings, 2015	0.5%	0.2%	**Below Average**
	Net Domestic Migration, 2015	NA	-12,242	**Below Average**
Projections	Real personal Income Projection, 2015 to 2019	12.3%	10.8%	**Below Average**
	Employment Projection, Non-Farm Payroll, 2015 to 2019	5.0%	3.5%	**Below Average**
	Employment Change Projection, 2014 to 2024	6.5%	4.3%	**Below Average**

Note: In comparing indicators that measured both anuual differences and trend differences between Minnesota and the U.S., any difference larger than 5 percent is considered above or below average. For instance, Minnesota's rate of new entrepreneurs is 45.2 percent less than the U.S. and, therefore, is considered below average.

Introduction

Minnesota's economic performance should be held to a high standard. Anyone who lives in Minnesota knows the people of Minnesota top the nation on a wide range of factors that contribute to both a high quality of life and a productive workforce. Minnesota ranks among the top states for educational attainment, health, family cohesion, public safety, workforce participation, civic engagement and access to cultural amenities. All of these advantages should generate a more productive workforce, make the state a more attractive place to live and work, and, ultimately, contribute to stronger economic performance.

> Minnesota's economy during the current century has been average at best.

Over much of the past fifty years, Minnesota's economy has met this high standard. At the very least, the state's economy has performed above average. Per capita incomes are now higher than the national average and the unemployment rate is usually lower than average. Also, no discussion of Minnesota's historic economic strength is complete without a reference to the large number of Fortune 500 companies headquartered in the state.

Many people claim that Minnesota's economy continues to perform well above average, so well that other states should emulate Minnesota's fiscal and regulatory policies.[1] President Obama is one of many who have held up Minnesota as a liberal state whose high-tax, high-spending model has proven successful.[2]

While Minnesota has historically enjoyed a competitive and diverse economy, a close look at the state's modern performance tells a different story. There are no two or three statistics or data points that give a complete picture of a national, regional or state economy. Only by taking an in-depth look that examines numerous data points over time can an accurate assessment of a state's economy be made. This report undertakes such a comprehensive, three-dimensional approach.

With respect to the measures that matter most to people living in the state—economic growth, incomes and jobs—Minnesota's economy during the current century has been average at best. Furthermore, and perhaps worse, the economy exhibits a number of alarming signs that point toward worse performance in the future if the state remains on its present course. The conclusion of this analysis is that Minnesota has been losing ground and needs to take a hard look at its fiscal and regulatory policies, lest the state's relative decline continue and worsen.

I. Minnesota's Economy is Underperforming

Measures of state-level economic performance generally fall into three main categories: output, income and jobs. This section outlines how well Minnesota performs across a number of measures within these categories. Because the state's economy is so heavily dominated by the Twin Cities, it is also helpful to compare how the Twin Cities metropolitan area performs compared to other large metropolitan areas. Minnesota's economy shows strengths when viewed from certain angles, but overall these data reveal that Minnesota's economic position is weakening.

A. Minnesotans' Strong, Conservative Values Raise the Bar for the State's Economy

Table 1 outlines a number of Minnesota's familiar strengths. Minnesota ranks among the top states for educational attainment, health, family cohesion, civic engagement, work ethic and public safety. Compared to residents of other states, these indicators reveal Minnesotans live out strong, conservative social values—values that emphasize a high level of personal responsibility.

Among these strengths, family cohesion is worth highlighting if only because Minnesota's advantage here is less recognized. People are well aware the average Minnesota student achieves among the highest scores on standardized tests in the nation. But how many people know Minnesota ranks second nationally behind Utah on the rate of teenagers living with both of their married biological parents?

Minnesota's strengths across all of these indicators gives the state's economy a strong edge over many other states. As the *New York Times* recently reported: "Boys who grow up with two parents seem to end up substantially stronger economically, according to a survey of the research by David Autor, an M.I.T. economist."[3] Clearly, kids who grow to be better educated, healthier, and more civic minded and law-abiding should also end up substantially stronger economically. This economic edge raises the bar for Minnesota's economy.

For much of Minnesota's history, the state's economy met a higher standard. Setting aside the farm crisis that hit Minnesota particularly hard in the 1980s, Minnesota's economy regularly reported stronger than average growth in economic output, per capita income and jobs from the 1950s through to the 1990s.

Table 1: Minnesota Rankings Among States on Various Social Indicators

Social Indicator	Rank
Percentage of the population over 25 with high school completion, 2014	3rd
Average score on fourth grade NAEP mathematics test, 2015	2nd
Average SAT score, 2015	4th
Life Expectency, 2009	2nd
UnitedHealth Foundation Overall Health, 2015	4th
Percent of births to unmarried mothers, 2014	5th
Percent of Teens Raised by Married Biological Parents, 2008-2011	2nd
Voter Participation Rate, 2012 Presidential Election	4th
Volunteer Rate, 2012-2014	4th
Labor Force Participation Rate, June 2016	1st
Violent Crime Rate, 2014	10th

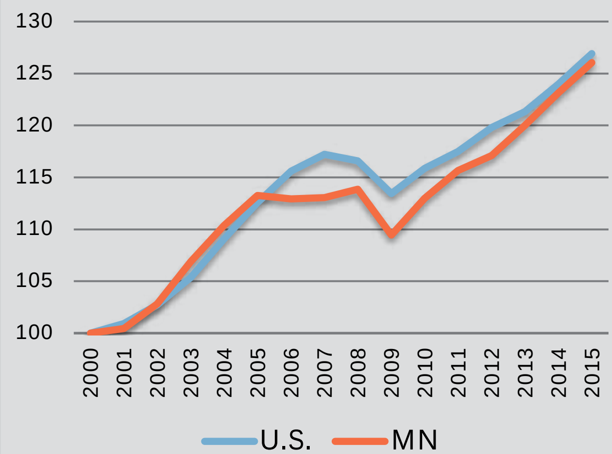
Sources: National Center for Education Statistics, Digest of Education Statistics; National Center for Education Statistics, The Nation's Report Card; Washington Post, SAT Scores 2015; measuringofamerica.org; UnitedHealth Foundation, America's Health Rankings; Centers for Disease Control and Prevention, National Vital Statistics Reports; W. Bradford Wilcox and Nicholas Zill, Red State Families: Better Than We Knew (Institute for Family Studies 2015); U.S. Census Bureau, Current Population Survey; Corporation for National and Civic Service, Volunteering and Civic Life in America 2015; U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics; and Federal Bureau of Investigation, Crime in the U.S.

Unfortunately, Minnesota's lofty rankings do not guarantee lofty economic performance. The following section reveals Minnesota's economic performance over the past fifteen years has been, at best, average.

B. Minnesota Underperforms Across Most Major Economic Indicators

Historically, Minnesota tends to track national patterns across a broad range of economic indicators. The fact that the state reflects national trends is likely due to the state's diverse economy, which includes a more even mix of agriculture, natural resource extraction, manufacturing, retail and financial services than most state economies. With this history, the United States presents a good reference point and any prolonged underperformance within a given indicator, especially those linked to incomes, productivity or innovation, presents cause for concern.

Figure 1: GDP Growth in Minnesota and the U.S. (Index 2000=100)



Source: U.S. Bureau of Economic Analysis.

1. Economic Output

The most fundamental measure of economic performance is a state's gross domestic product (GDP, also referred to as gross state product or GSP), the basic measure of a state's total economic output. GDP measures the total market value of goods and services produced within an economy.

a. GDP

Over the past 50 years, Minnesota GDP grew slightly faster than the national rate. From 1965 to 2015, Minnesota's average annual growth rate of 6.8 percent registers just a bit higher than the national rate of 6.7 percent. As a result, Minnesota's economy is 5.6 percent larger than it would have been if growth had matched the national average.

In more recent years, however, Minnesota's GDP delivers only average growth. While national GDP growth continued at a relatively steady pace until the onset of the recession of 2008-2009, Minnesota's gross production remained flat from about 2005 to 2008. It then entered the recession. Since then, Minnesota's growth has been catching up to keep pace with the national average. As discussed later, projections predict Minnesota will not continue to post better-than-average GDP growth in the coming years.

b. Productivity

What matters most for long-term growth is productivity. As workers become more productive, their real wages rise. Considering the importance of productivity, it is surprising how little data exists at the state level. While the Bureau of Labor Statistics (BLS) measures national productivity, BLS data sources do not provide the information necessary to construct state productivity measures. Though difficult to measure precisely, state productivity can be approximated as state GDP per worker. Since 2000, Minnesota's productivity has consistently been below the national average. As shown in Figure 2, Minnesota lost ground between 2004 and 2010 and has gained back much of that lost ground since. While still remaining below

Figure 2: Private Sector Productivity
(Real GDP/Employee)

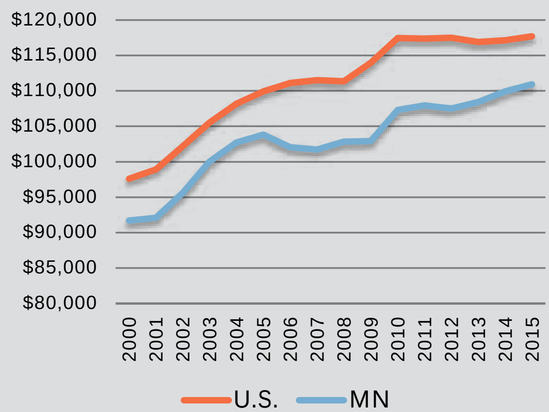


Figure 3: Goods Producing Productivity
(Real GDP/Worker)

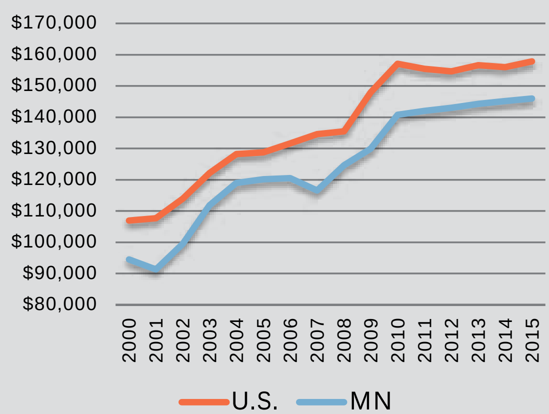
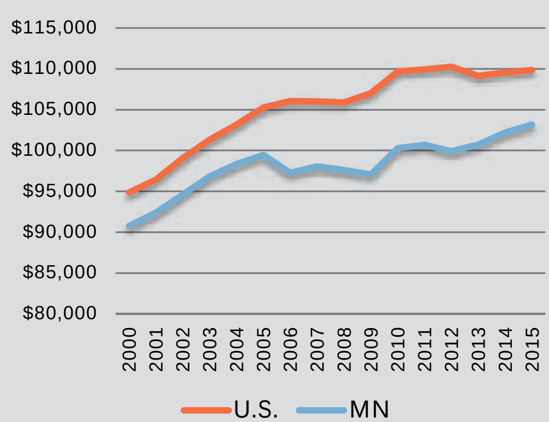


Figure 4: Service Producing Productivity
(Real GDP/Worker)



Sources: U.S. Bureau of Economic Analysis (2009 Dollars); and U.S. Bureau of Labor Statistics, Current Employment Statistics.

average, Figures 3 and 4 show that Minnesota experienced stronger productivity gains in goods producing sectors and weaker gains in service producing sectors. As discussed in the box on the following page, manufacturing has played a primary role in sustaining GDP growth in recent years. Data throughout this report confirm the importance of manufacturing to Minnesota's economy.

Alone, GDP provides an important reference point for the overall strength and productivity of an economy, but GDP only explains so much. Looking to income and employment measures helps fill in a more complete picture of the economic wellbeing of the population.

2. Income Growth

Different measures of income provide different insights into the economic wellbeing of the people who live and work in Minnesota. Personal income measures the total income people receive from all sources, including wages, salaries, dividends, interest, rental income, and government transfer payments. Looking at personal income on a per capita basis provides a reference point for comparing the level of income from region to region. But most people rely solely on salaries and wages for their income and so, to better understand the economic status of the average worker, it is helpful to look specifically at the average wage people receive on the job. Another measure often referenced to gauge the wellbeing of the typical family is median household income.

a. Personal Income Growth

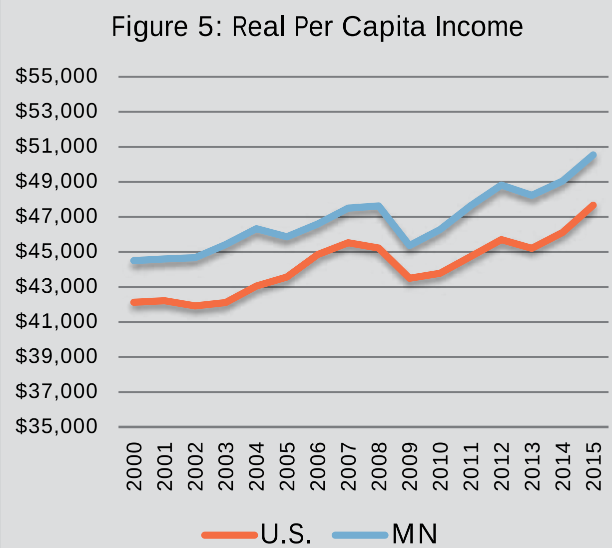
Like GDP, Minnesota personal income grew at a slightly faster pace than the nation over the past 50 years. In 1965, per capita personal income in Minnesota was 4.1 percent less than the U.S. level

Manufacturing adds more to Minnesota GDP growth than any other sector relative to the nation

Minnesota's manufacturers are the main reason Minnesota GDP continues to grow at close to the same pace as the nation. The growth advantage in Minnesota's manufacturing industry—the difference between Minnesota's actual growth and what growth would have been if Minnesota's manufacturing sector grew at the national average—added another $7.1 billion to Minnesota's economy between 2000 and 2015. This is substantially higher than the next best sector, agriculture, forestry, fishing, and hunting. The growth advantage from that sector added just another $1.8 billion to state GDP. This explains why many of the best success stories around Minnesota can be found in manufacturing.

A number of factors contribute to Minnesota's manufacturing advantage. However, one particular factor, taxes, might come as a surprise. A recent analysis by the Tax Foundation reveals that Minnesota imposes one of the lowest tax burdens in the country on certain manufacturers. To make an apples-to-apples comparison of each state's tax burden on business, the Tax Foundation developed a number of model businesses and asked the national accounting firm KPMG to estimate the actual taxes each business would pay in each state. Minnesota imposed the second lowest tax burden on the model capital intensive manufacturing business. This is largely due to the fact that Minnesota does not tax income derived from the sale of goods outside the state.

Unfortunately, although manufacturing jobs typically pay high wages, the manufacturing sector is not likely to create a lot of jobs in the future, even if it continues to experience rapid growth in Minnesota. Like agriculture before it, manufacturing has been experiencing a long-term decline in employment as higher productivity and international competition outpace the growth in demand.

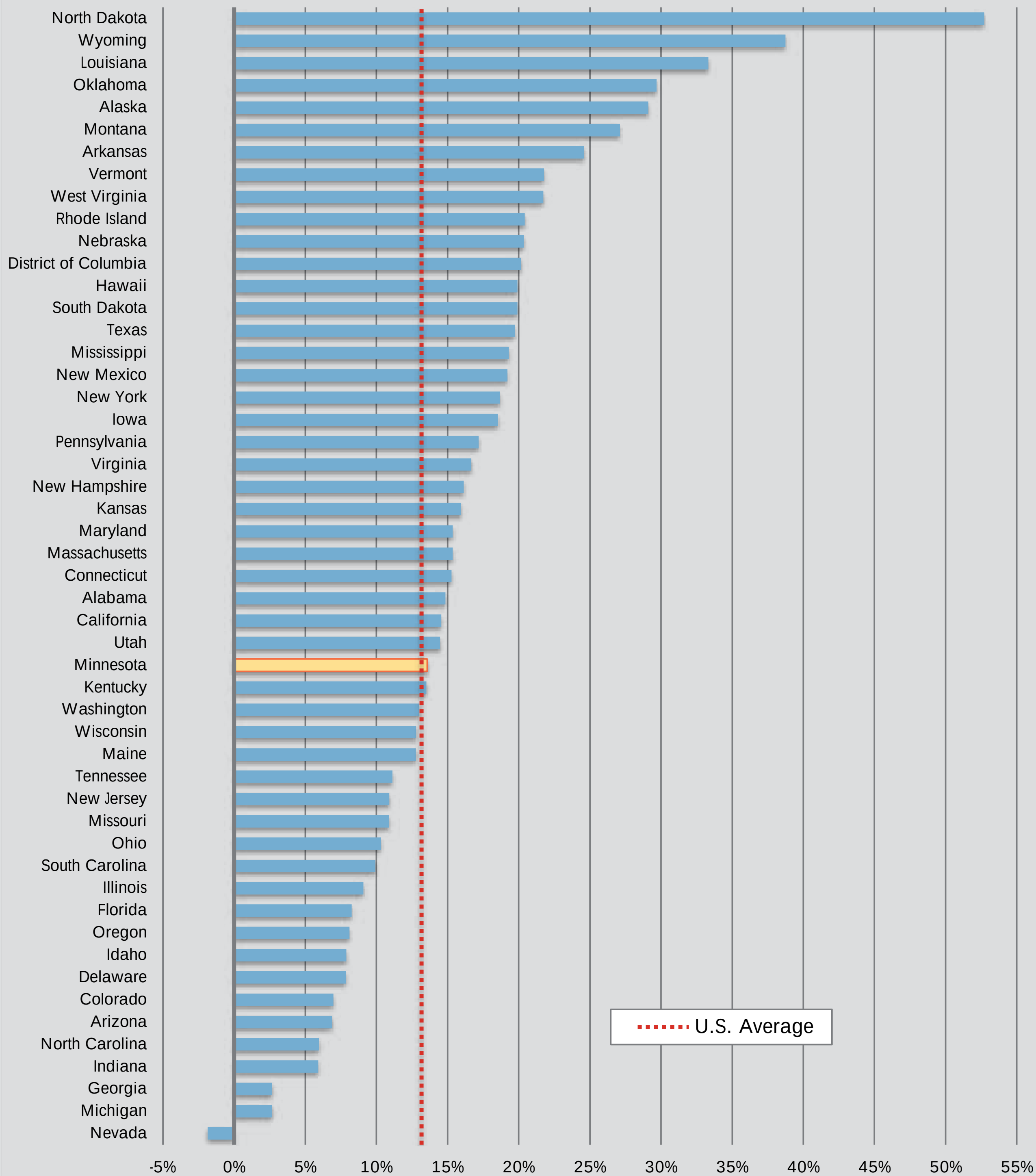


Source: U.S. Bureau of Economic Analysis (2015 Dollars).

and over the decades it has grown to be 6.0 percent higher than the national average. Minnesota's per capita income now ranks fourteenth in the country. As discussed below, much of this advantage can be attributed to the fact that a larger percentage of Minnesotans are employed. The 1990s was a particularly strong decade, a time when the state's labor force participation rate hit peak levels. Since the 1990s, as shown in Figure 5, Minnesota's per capita income has grown in step with the national level. Though Minnesota growth kept pace with the nation, a majority of states still outperformed Minnesota. As shown in Figure 6, Minnesota per capita income growth from 2000 to 2015 ranked 30th overall among the states.

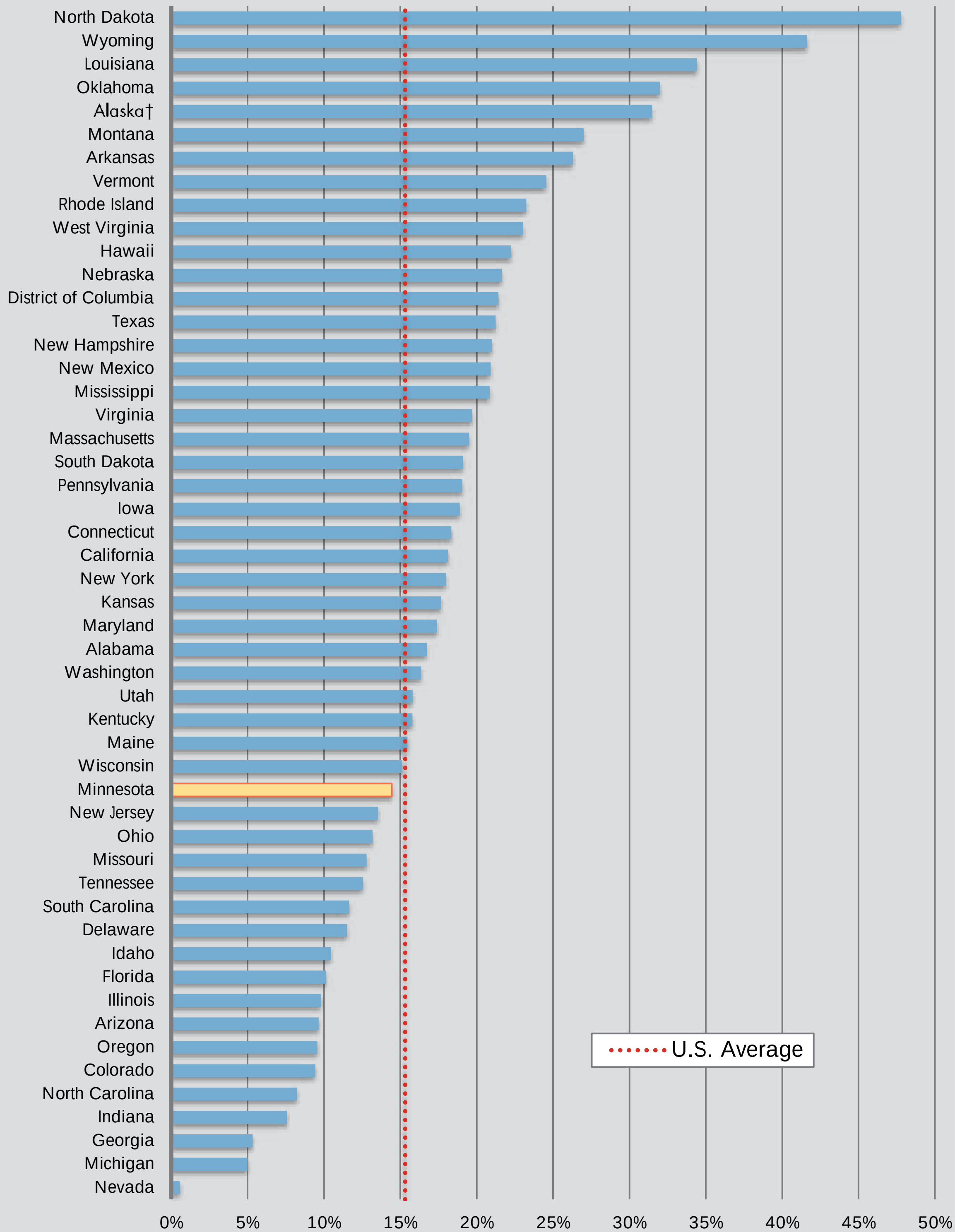
Though Minnesota's per capita personal income exceeds the national average, this advantage is weakened by two factors: Minnesota's high taxes and the disproportionately large amount of personal income growth derived from growth in transfer payments. The Bureau of Economic Analysis reports per capita disposable income, which is

Figure 6: Real Per Capita Income Growth, 2000 to 2015

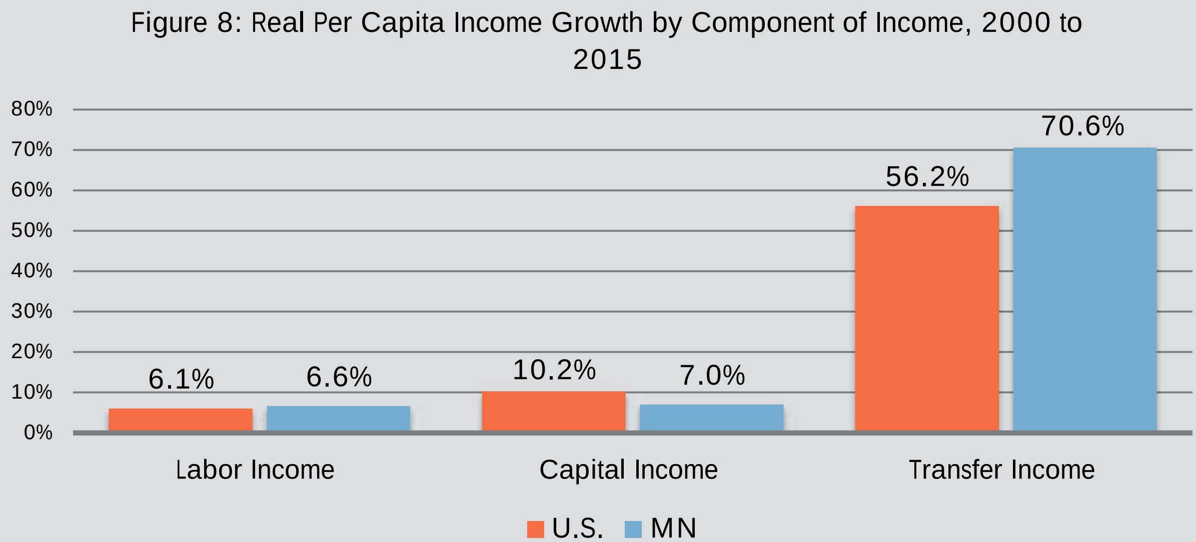


Source: U.S. Bureau of Economic Analysis (2015 Dollars).

Figure 7: Real Disposable Income Growth, 2000 to 2015



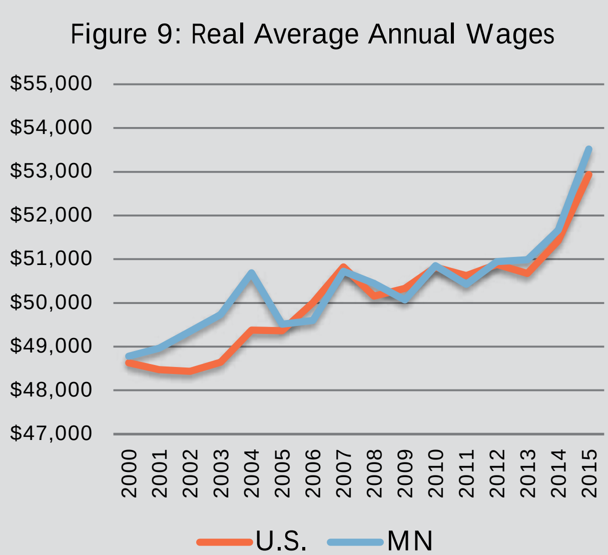
Source: U.S. Bureau of Economic Analysis (2015 Dollars).



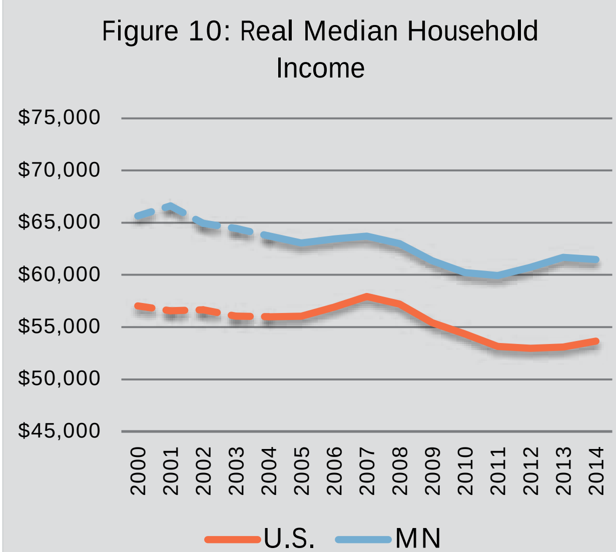
Source: U.S. Bureau of Economic Analysis (2015 Dollars).

personal income minus income taxes. This provides a more accurate measure of the income available to people to invest, save and spend on goods and services. Because of its high income taxes, Minnesota fares worse with regard to disposable income. Over the last fifteen years, as shown in Figure 7, Minnesota ranks 34th among the states in per capita growth of disposable income.

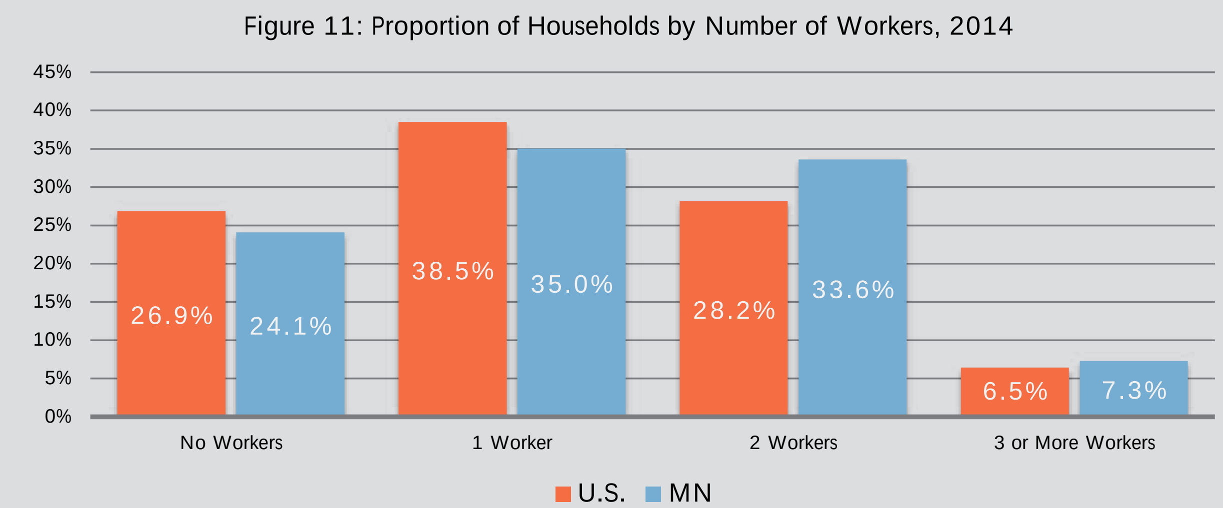
In addition to taxes, government spending through



Source: U.S. Bureau of Economic Analysis (2015 Dollars).



Note: The dashed portion of the line represents a period of time when the ACS was in a testing phase and did not survey as large of a sample.
Source: U.S. Census Bureau, American Community Survey (2014 Dollars).



Source: U.S. Census Bureau.

transfer payments strongly impacts Minnesota's personal income. Personal income can be separated into three categories: labor income, capital income and transfer income. As Figure 8 shows, Minnesota has experienced much stronger than average growth in transfer income—e.g., Social Security, Medicaid, Medicare, welfare, and other government program distributions—and weaker growth in capital income. Thus, Minnesota's ability to retain an advantage in per capita income over the past fifteen years does not derive from productive economic activity. On the contrary, if government transfer payments are deducted, Minnesota's per capita income growth since 2000 has been slightly below average.

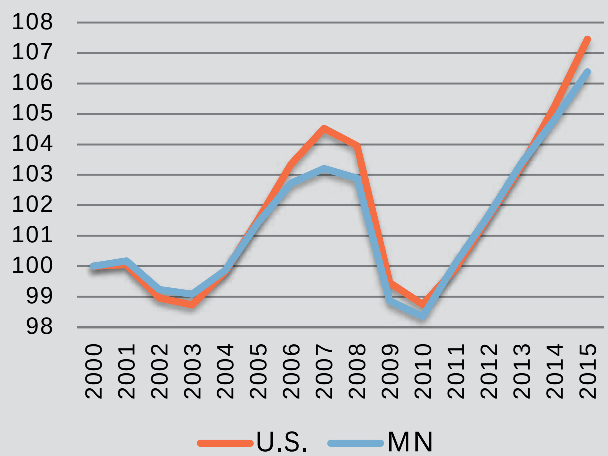
b. Wages per Job

Another important income measure is the average wage earned per job. The average wage provides a more accurate sense of the economic status of the typical worker than per capita income. Income earned from dividends, interest, and rental property is important to a state's economy, but most people depend on wages they earn at a job for their livelihood. Here, Minnesota tracks very closely to national averages. In 2015, Minnesota's average wage of $53,519 was just $582, or 1.1 percent, more than the U.S (see Figure 9). Also, the trend in Minnesota has tracked the national average almost exactly over the last 15 years as the state's lead in the early years of the decade has all but disappeared.

c. Household Income

Median household income provides another important angle from which to view the economic wellbeing of a typical family. On this income measure, the median Minnesota household earns a higher income than the median U.S. household.[4] Median household income in Minnesota was $61,481 in 2014, 15 percent above the national median of $53,657. As Figure 10 shows, Minnesota's advantage narrowed a bit between 2000 and 2007. Since then, Minnesota's advantage has widened some, but is still less than it had been in 2000. The most notable trend for

Figure 12: Employment Growth in MN and the U.S. (Index 2000=100)



Source: U.S. Bureau of Labor Statistics.

Minnesota and the nation is that median household income has declined for both over the past fifteen years.

A large contributor to Minnesota's relatively high median household income is the fact that Minnesota has a greater than average percentage of households with two or more income earners (see Figure 11). Households with two workers account for 33.6 percent of Minnesota households, but only 28.2 percent of households nationally.[5] On the other side of the coin, Minnesota has a smaller portion of households with no workers. Obviously, the more workers per household, the higher, on average, the household income.

Thus, Minnesota's robust household income numbers tell us more about family composition—e.g., Minnesota has a higher than average number of intact two-parent families—than about the state of Minnesota's economy.

3. Jobs

A review of Minnesota's labor market rounds out this general assessment of the state's economic performance. Again, while no single measure reflects the strength of the labor market, job growth is the most fundamental indicator. More jobs directly reflect business growth and create additional income for workers to spend on goods and services. Additionally, the unemployment rate and the labor force participation rate provide important insights.

a. Job Growth

Since 2000, the rate of job growth in Minnesota has lagged behind the nation as a whole. As Figure 12 shows, Minnesota slightly outpaced the national job creation rate around 2002 and 2003, but fell significantly behind between 2005 and 2008. In each of the last four years, the rate of job growth in Minnesota has been below the national average.

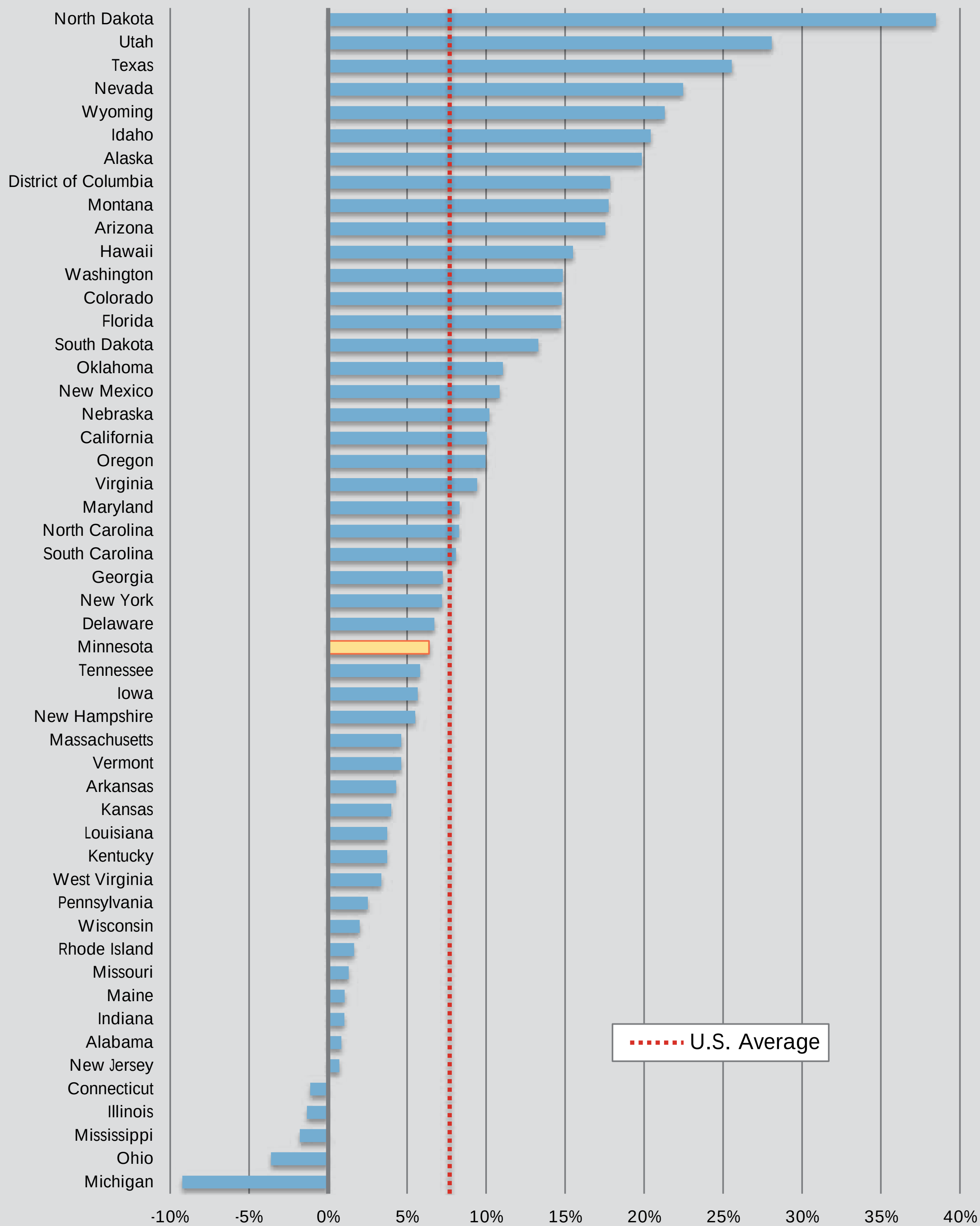
Another way of looking at the jobs data is to ask how well Minnesota has created jobs, compared to other states. The chart below shows that between 2000 and 2015, Minnesota ranked only 28th among the 50 states and the District of Columbia in the rate of job creation.

b. Unemployment Rate

The unemployment rate reflects the number of people not working who want to work and are actively looking for work. A higher unemployment rate represents a larger number of idled workers who are no longer productive, but, instead, pose extra demands on public services.

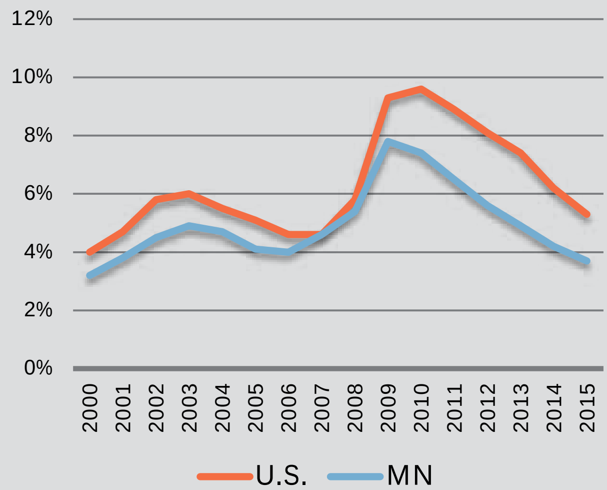
In recent years, Minnesota's unemployment rate has generally been lower than the national average. In May 2016, Minnesota's unemployment rate of

Figure 13: Employment Growth, 2000 to 2015



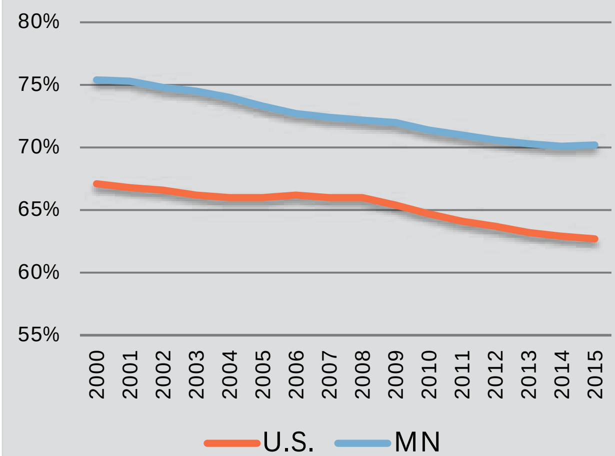
Source: U.S. Bureau of Labor Statistics.

Figure 14: Unemployment Rate



Source: U.S. Bureau of Labor Statistics.

Figure 15: Labor Force Participation Rate



Source: U.S. Bureau of Labor Statistics.

3.8 percent was well below the national average of 4.7 percent (although above North and South Dakota's rates of 3.2 and 2.5 percent, respectively). The timing of its business cycle has roughly followed that of the national economy, although the state was slightly ahead of the nation in both entering and emerging from the recent recession.

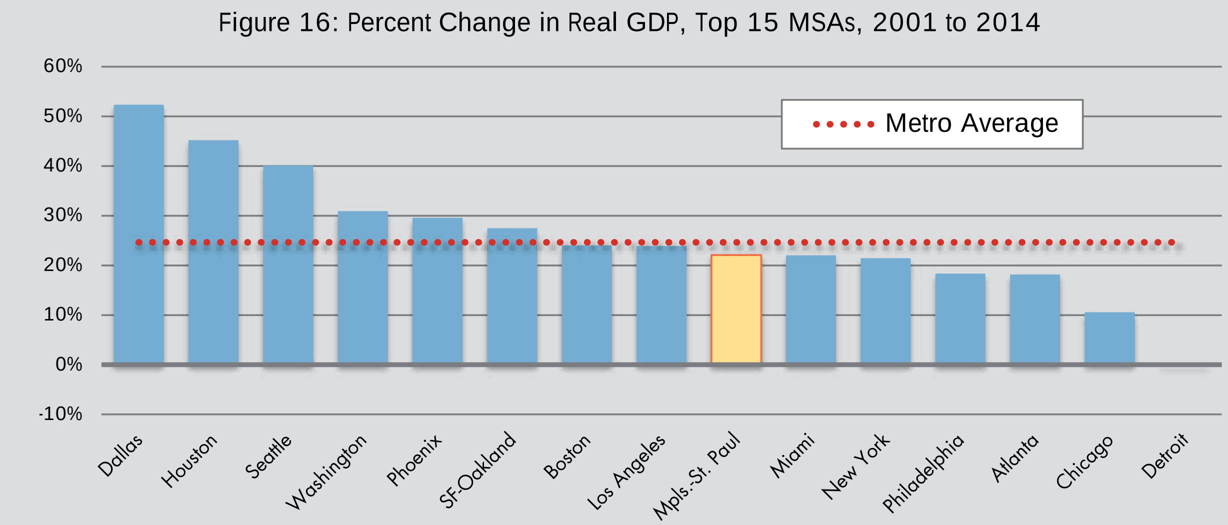
Minnesota maintains a low unemployment rate while at the same time recording below average job growth. Though low unemployment generally reflects efficient utilization of labor, the tightness of the state's labor market might also reflect fewer people participating in the labor market. As discussed below, Minnesota has experienced a net loss of population due to domestic migration since 2002, which results in a shrinking of the potential labor pool.

The unemployment rate is traditionally seen as a basic indicator of economic health. However, its utility is limited by the fact that it reveals nothing about the quality of jobs available in a given area.

c. Labor Force Participation Rate

Minnesota's labor force participation rate has long been among the highest in the country. A larger percentage of people working goes a long way to explain how Minnesota consistently delivers above average GDP and personal income on a per capita basis, while at the same time paying the average worker about the same as the national average. But this economic advantage is slipping somewhat. Over the last 15 years, as the national participation rate has declined, Minnesota's rate has declined slightly more.

The decline in labor force participation reflects a long-term trend that began well before the 2008-2009 recession. This decline is due largely to two demographic trends, to which Minnesota is not immune. First, the widespread increase in labor force participation by women has largely run its



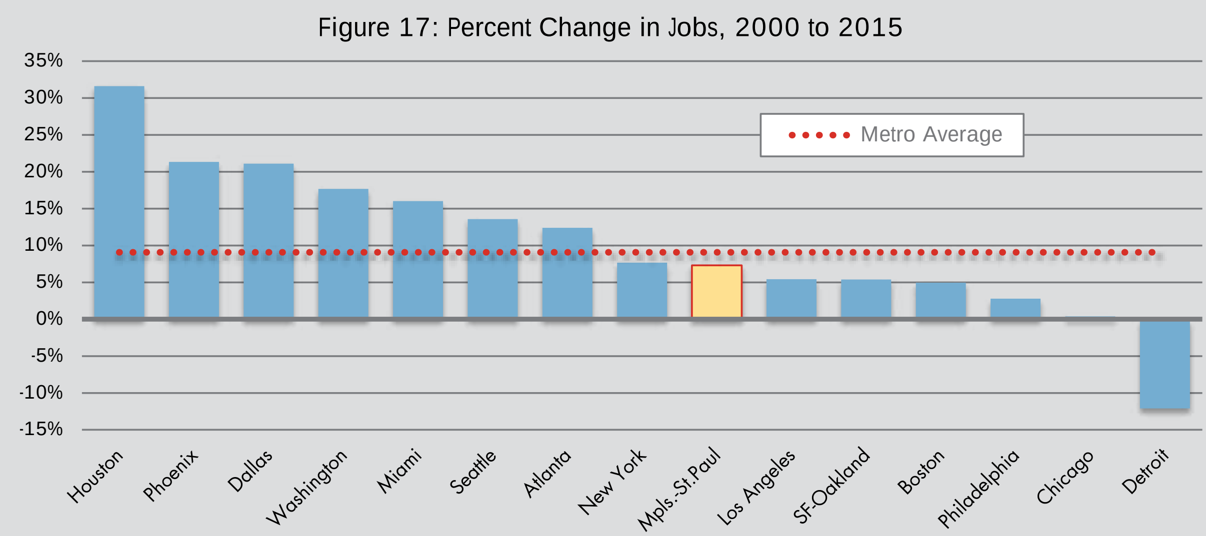
Source: U.S. Bureau of Economic Analysis (2009 Dollars).

course. The second factor is the retirement of the Baby Boomers, combined with a long-term decline in birth rates.

Thus, while labor force participation remains relatively strong in Minnesota, it appears that in the future it will be more difficult to raise living standards because the burden of production will fall on a shrinking portion of the total population.

Overall, the measures of economic performance reviewed here show that, so far this century, Minnesota's economy does not rank among the country's strong performers. Over the past 15 years, Minnesota GDP—the most comprehensive measure of economic performance—reports average growth compared to the nation. The state's per capita personal income might be higher, but growth is, again, just average and this middling growth has been held up by increases in transfer income, not income related to productive activities. Growth in wages and jobs is also just average and while in the average range, Minnesota ranks in the bottom half of states on both measures. A high median household income and a low unemployment rate are positive factors. Yet, as discussed, these apparent strengths do not necessarily reflect superior overall economic performance by Minnesota.

The state's economy is by no means in the doldrums, but the sum of these measures points to average economic performance at best. Yet, mediocre is perhaps a more apt label. Minnesota is underperforming when measured against the higher bar set by the state's high level of educational attainment, health, family strength, work ethic, civic involvement, and public safety, all of which should produce stronger economic performance.



Source: U.S. Bureau of Labor Statistics.

C. The Twin Cities Metropolitan Area Is Falling Behind Comparable Urban Areas

Looking more closely at the Twin Cities provides another important perspective on the state's economic performance. This section takes a brief look at how the Twin Cities metropolitan area compares among the 15 largest metropolitan statistical areas (MSAs).

1. Gross Domestic Product

Since the beginning of the century, GDP growth in the Twin Cities metropolitan area has lagged behind many of the nation's more dynamic cities. Figure 16 shows percentage growth in GDP among the fifteen MSAs with the largest GDPs. Over that time period, the Minneapolis-St. Paul-Bloomington MSA ranks only ninth.

2. Job Creation

The picture is similar with respect to job creation, as the Twin Cities lags behind other major metropolitan areas in terms of percentage growth, ranking eighth out of 15, with only a fraction of the rate of job growth enjoyed by the most dynamic metropolitan areas.

It should be noted, too, that some of the MSAs that have done worse than the Twin Cities MSA over this period have widely acknowledged structural problems that are likely to take decades to reverse. The Twin Cities are not yet in the position of, say, Detroit or Chicago, but that should not be the relevant standard. When the field is narrowed to MSAs without obvious long-term problems, and with which the Twin Cities area competes for business and job creation, the region has clearly trailed most other urban areas.

D. Findings from Other Recent Analyses Are Consistent With This Report

The data presented in this paper may seem surprising to Minnesotans accustomed to hearing their state's economy described in glowing terms. In fact, however, there should be nothing controversial about the fact that in recent years, Minnesota's economic performance has been average or worse. For example, a 2015 report by the Brookings Institution's Metropolitan Policy Program offered similar, and in some cases more pessimistic, data.

That report notes:

> From 2000 to 2014, Minnesota added 105,000 jobs, expanding the state's job base by 3.7 percent. This growth rate trailed the national average of 5.1 percent during that time. Since the recovery from the Great Recession began in earnest in 2010, Minnesota's employment has grown 1.5 percent per year on average, slightly slower than the nation's 1.7 percent growth rate.[6]

With respect to economic output, the Brookings report says:

> The state's economic output—a measure of the total value of products and services produced in Minnesota—grew by 1.5 percent per year on average from 2000 to 2013 (the latest year for which state output data are available), just below the national rate of 1.6 percent.[7]

Brookings also notes that "Minnesota's rapid recent productivity growth has not translated to higher wages for most workers."[8] Most alarming, perhaps, Brookings found that, from 1999 to 2013, "fully 70 percent of Minnesota workers experienced declining wages on average."[9]

Last year the Minnesota Department of Employment and Economic Development (DEED) reviewed Minnesota's recovery from the 2008-2009 recession and, compared to the United States, reported the same generally average economic performance on growth in jobs, wages and personal income over various time periods.[10] Though the state's low unemployment rate is an exception to the state's otherwise average performance, DEED notes that "Minnesota's tighter job market has likely contributed to the state's slower job growth."[11]

The Metropolitan Council also reviewed the economic competitiveness of the Twin Cities region in 2015.[12] Though the Twin Cities regained jobs faster than the nation since the lowest point of the recession, the study found "fairly average job growth" compared with the nation's 25 largest metropolitan areas over the same time period. Twin Cities growth was actually just below average, "ranking 14th in total average annual employment change over 2010 to 2014 and 2nd among the 10 largest metro areas in the Midwest and Northeast."[13]

The Metropolitan Council study also identified seven key industry clusters that drive the region's economic competiveness. Between 2000 and 2013, four of the seven clusters experienced a loss in concentration relative to the nation and between 2009 and 2013, "six of the seven key industry clusters slipped slightly relative to the nation." These findings are consistent with research from Michael Porter—the Harvard Business School professor who has popularized cluster analysis—that shows declining strength among Minnesota's clusters.[14]

The fact that Brookings, DEED and the Metropolitan Council all report similar findings is not surprising given that each analysis relies on

GDP by MSAs in Minnesota and Bordering States

MSA	GDP 2001	GDP 2014	Percent Change
Fargo, ND-MN	$7,984	$13,611	70%
Bismarck, ND	$3,921	$6,498	66%
Sioux Falls, SD	$10,561	$16,290	54%
Cedar Rapids, IA	$10,947	$16,492	51%
Des Moines-West Des Moines, IA	$28,593	$41,130	44%
Dubuque, IA	$3,562	$4,958	39%
Madison, WI	$29,445	$40,505	38%
Waterloo-Cedar Falls, IA	$6,318	$8,688	38%
Eau Claire, WI	$5,126	$6,989	36%
Rapid City, SD	$4,192	$5,521	32%
Grand Forks, ND-MN	$3,279	$4,262	30%
Rochester, MN	$7,619	$9,725	28%
Mankato-North Mankato, MN	$3,215	$4,094	27%
Iowa City, IA	$6,368	$8,086	27%
Ames, IA	$3,382	$4,253	26%
La Crosse-Onalaska, WI-MN	$4,972	$6,180	24%
Oshkosh-Neenah, WI	$6,998	$8,654	24%
Minneapolis-St. Paul-Bloomington, MN-WI	$177,678	$216,891	22%
Davenport-Moline-Rock Island, IA-IL	$14,957	$18,104	21%
Sioux City, IA-NE-SD	$6,634	$7,862	19%
Wausau, WI	$5,352	$6,339	18%
Appleton, WI	$9,209	$10,778	17%
Milwaukee-Waukesha-West Allis, WI	$77,583	$90,056	16%
St. Cloud, MN	$6,858	$7,918	15%
Green Bay, WI	$14,217	$16,162	14%
Duluth, MN-WI	$9,547	$10,810	13%
Sheboygan, WI	$5,083	$5,749	13%
Janesville-Beloit, WI	$4,899	$5,495	12%
Fond du Lac, WI	$3,689	$4,079	11%
Racine, WI	$7,097	$6,842	-4%

Source: U.S. Bureau of Economic Analysis (millions of 2009 Dollars).

The Distribution of Growth Across Minnesota

Growth in output, jobs and income is not evenly distributed across Minnesota. The map on the following page shows that the strongest employment growth springs from the suburban and exurban areas in the western portion of the Twin Cities. Greater Minnesota shows stronger growth around Thief River Falls, Moorhead, Alexandria, Mankato, Rochester, and Rock County in the southwest corner.

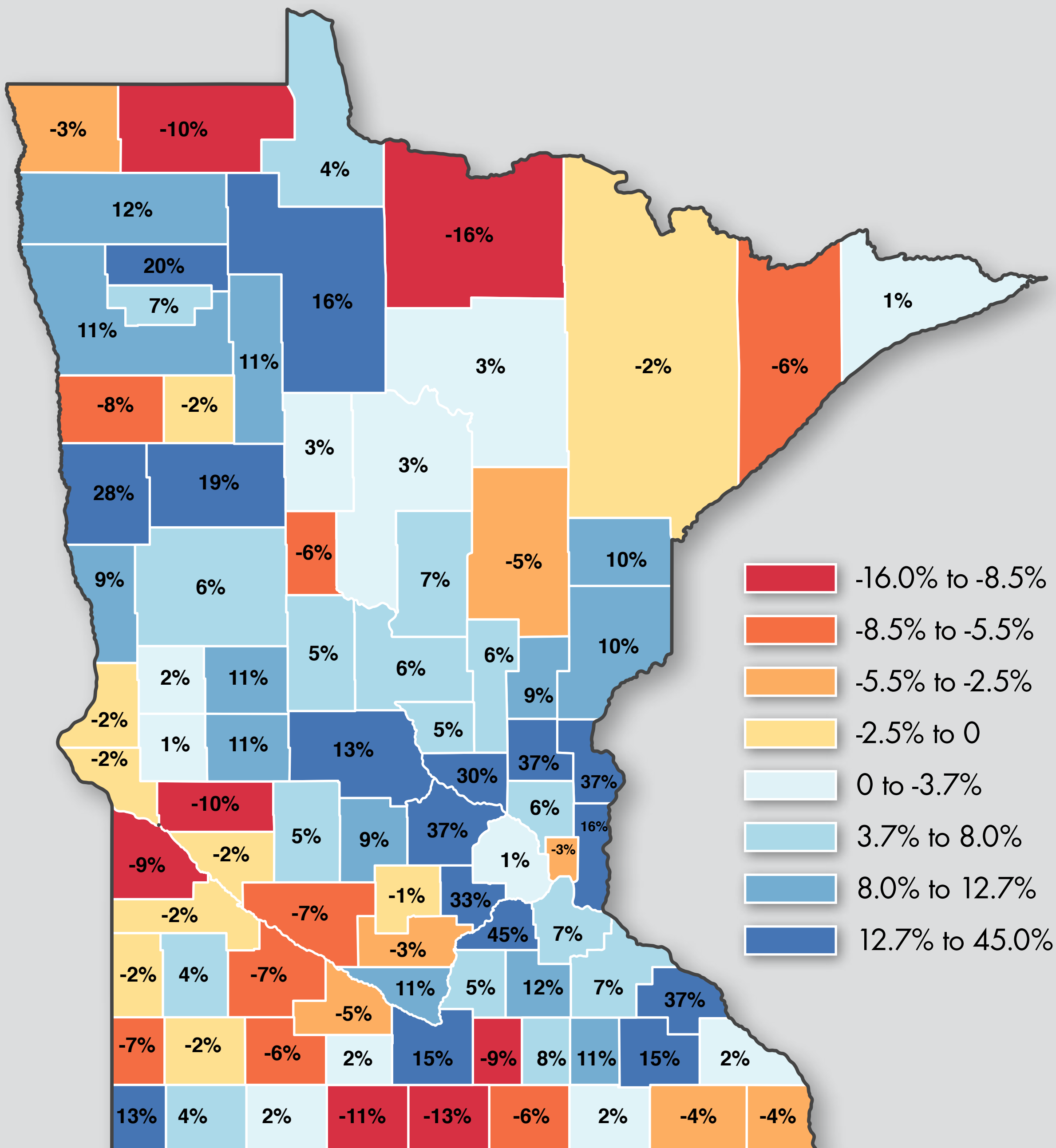
While most of the counties experiencing negative job growth are in Greater Minnesota, the actual distribution of job growth between the Twin Cities and Greater Minnesota is more even than the map suggests. Job growth between 2000 and 2015 in the seven-county Twin Cities metro area was slower when compared to the rest of Minnesota. Expanding the Twin Cities region to an 11-county area reverses the results and shows somewhat higher growth in the Twin Cities region.

Per capita incomes remain much higher in Hennepin County than elsewhere. However, incomes are catching up across Minnesota. The most substantial gains have occurred in the agricultural southwest portion of Minnesota, which follows from the strong agricultural economy of recent years. But, without exception, between 2000 and 2014, per capita incomes in every county outside the Twin Cities grew by a larger percentage than in Hennepin County.

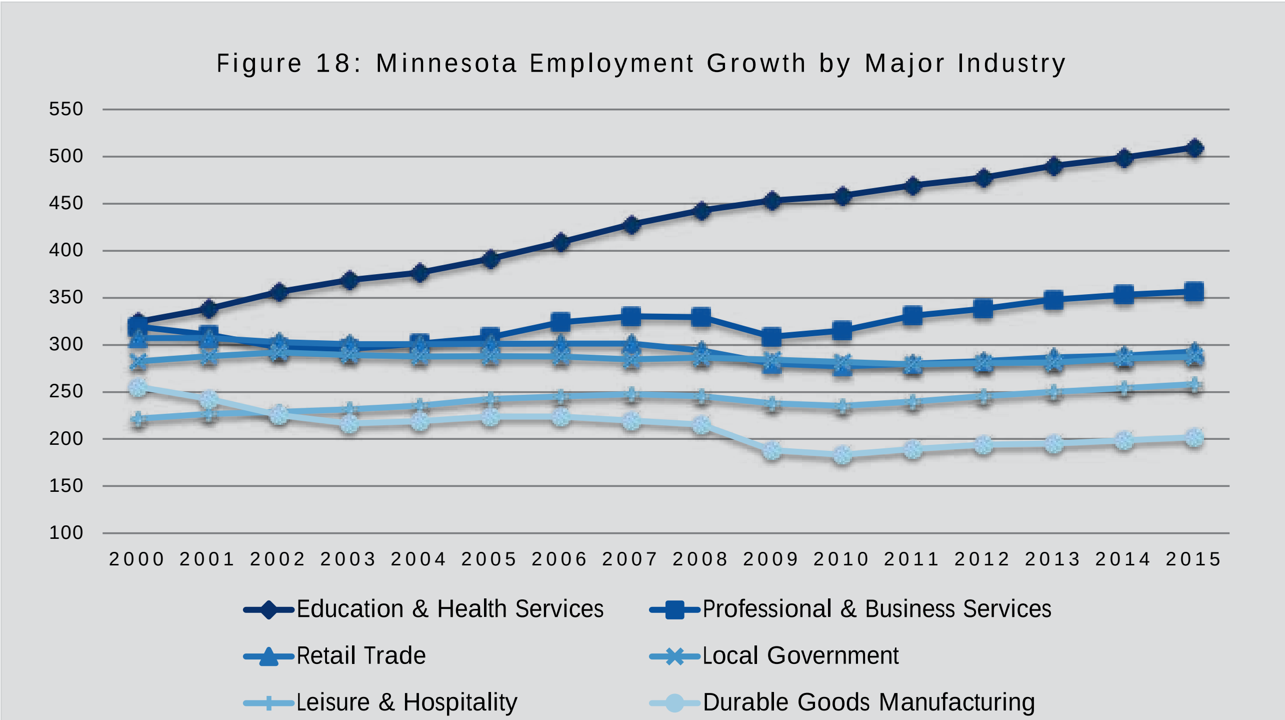
Mankato and Rochester show the strongest GDP growth among Minnesota's metropolitan statistical areas (MSAs) measured by the BEA. BEA data cover 2001 to 2014 and during that period Mankato's GDP grew by 27 percent, just behind Rochester at 28 percent. In contrast, the Twin Cities area grew by 22 percent.

Though growth might be stronger in Rochester and Mankato compared to Minnesota's other MSAs, these cities don't even break into the top ten when the comparison broadens to MSAs in states bordering Minnesota. Fueled by Bakken oil, Fargo and Bismarck North Dakota take the top two spots. Notably, four of the top eight cities are located in Iowa.

Employment Growth by County, 2000 to 2015



Source: U.S. Bureau of Labor Statistics.



Source: U.S. Bureau of Labor Statistics.

the same data sources. Basic economic data on incomes, productivity and jobs can be looked at in slightly different ways, or over slightly different time periods. But the bottom line is inescapable: In recent years, Minnesota's economy has been performing in the average to below average range compared to other states.

II. Current Weaknesses in Minnesota's Economy Raise Serious Concerns about Future Growth

Part I of this report surveyed the general performance of Minnesota's economy over recent years and as it exists today. What does the future hold? A more in-depth look at key trends reveals weaknesses that will likely undermine future growth if left unremedied.

A. Minnesota's Job Growth Is Centered on Less Productive Jobs

Jobs may be growing in Minnesota at close to the same rate as the U.S. as a whole, but not all jobs are equal. As DEED reported last year, "the quality of job openings—in terms of hours and wage offers—are still below pre-recession levels."[15]

A closer look at job growth across industry sectors shows that recent job growth has centered on jobs in less productive sectors. Figure 18 shows employment growth in the six major super-sectors of Minnesota's economy. Together these occupational categories account for 78 percent of total nonfarm employment in the state. Figure 18 clearly shows the dominance of education and health services as both a source of current jobs and a source of expected job growth over time.

Table 2: Recession Losses and Gains by Industry in Minnesota (in thousands, ranked by Size)

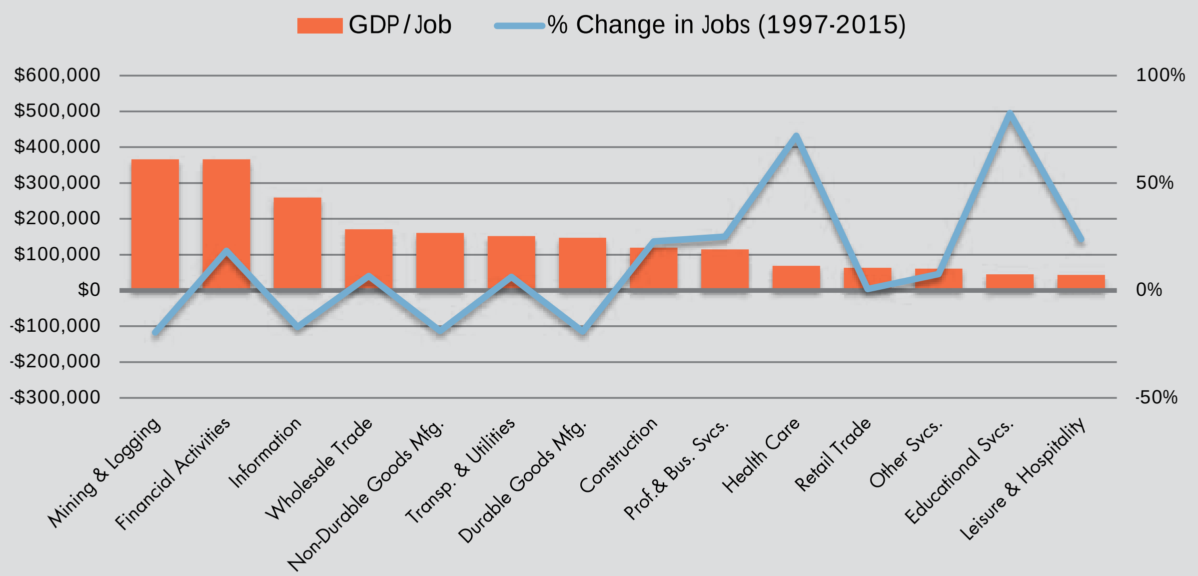
	Losses	Gains Through May 2016	Net
Health Care & Social Assistance	N/A*	62.0	62.0
Retail Trade	(27.4)	20.8	(6.6)
Leisure & Hospitality	(14.7)	26.7	12.0
Professional, Science, & Technical Services & Management	(11.9)	34.2	22.3
Durable Goods Manufacturing	(42.5)	20.6	(21.9)
Financial Activities	(10.0)	13.3	3.3
Administrative. & Support & Waste Management	(23.7)	24.2	0.5
Wholesale Trade	(11.6)	8.7	(2.9)
Construction	(38.3)	34.6	(3.7)
Non-Durable Goods Manufacturing	(14.5)	7.4	(7.1)
Other Services	(5.4)	0.6	(4.8)
Transportation & Utilities	(6.8)	10.5	3.7
Educational Services	(3.9)	17.5	13.6
Information	(4.7)	(3.6)	(8.3)
Mining & Logging	(2.0)	1.5	(0.5)
Private Sector Total**	(217.4)	279.0	61.6

* No job losses occurred during the recession.

** Reflects the sum of the industry-level data. The gains and losses occur during different timeframes for each industry.

Source: U.S. Bureau of Labor Statistics.

Figure 19: Minnesota GDP Per Job and Job Growth



Sources: U.S. Bureau of Labor Statistics; and U.S. Bureau of Economic Analysis.

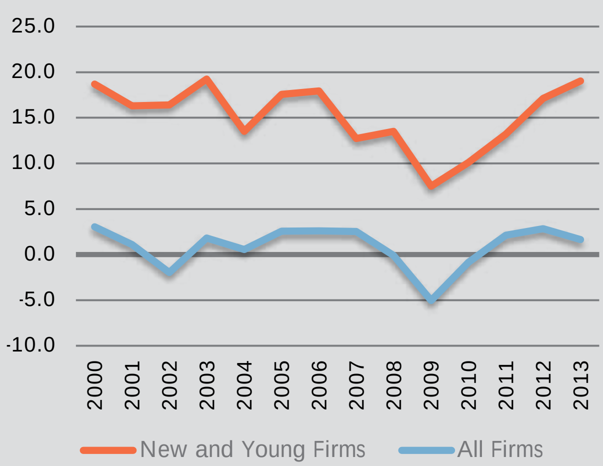
Education and health services grew at a combined rate of 54 percent since 2000, far faster than the total of all nonfarm jobs, which grew by only 4.8 percent over that period. The second fastest growing sector has been professional and business services, which grew 17 percent over the past 15 years. Job growth in all other sectors has been relatively weak, with some super-sectors declining during the period.

With the exception of professional and business services, most of the growing sectors make relatively small per-job contributions to GDP. In contrast, several of the super-sectors that have lost jobs—such as durable goods, construction, and mining and logging—include occupations that demand significant skills and command high salaries.

Table 2 (previous page) shows job losses and gains since the recession that ended in 2009. Minnesota's private sector lost 217,400 jobs during the downturn. From the bottom of the recession through May 2016, it gained 279,000 jobs, for a net gain of 61,600 jobs. But the jobs regained were not always those that were lost. Table 1 shows that some industries, such as construction and durable goods manufacturing, continue to suffer a large net loss. To a lesser extent, so does nondurable goods manufacturing. On the other hand, the state has seen large net gains in both professional and business services, education and health services, and leisure and hospitality.

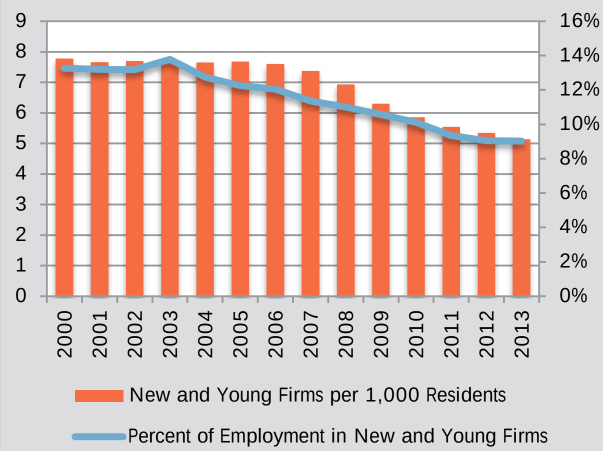
Figure 19 shows the increase in GDP associated with the average job in various occupational categories as well as the increase or decrease in those jobs since 1997. It is clear that the jobs being created are not necessarily the most valuable. In some occupations with a high impact on GDP, such as mining, information and utilities, the number of jobs has stagnated or even fallen. In contrast, the fastest growing occupations, health care and educational services, have a relatively

Figure 20: Net Job Creation Rate, Minnesota



Source: U.S. Census Bureau.

Figure 21: New and Young Firm Activity, Minnesota



Source: U.S. Census Bureau.

low impact on GDP. For as long as this continues to be the case, net job growth may not imply rising average incomes.

As noted above, Minnesota lags the rest of the nation, and the Twin Cities trail most comparable metropolitan areas, in job creation. The reality is actually somewhat worse than those data imply, because the mix of jobs currently being created in Minnesota skews more heavily toward lower-paying work than was the case in Minnesota pre-recession.

B. Minnesota Suffers From a Lack of New Business Creation

Economists generally recognize that most jobs are created by new businesses. Moreover, the small new businesses of today are, in some cases, the large, established businesses of tomorrow. Therefore, it is a dangerous warning signal if a state falls behind in new business formation. Unfortunately, that is what has happened in Minnesota.

Figure 20 demonstrates the importance of new businesses. The chart shows that new and young firms have accounted for more than the net total job creation since 2000. This means that established firms have been a source of substantial job loss, due to both downsizing and firm death. New business formation is, therefore, critical to future job creation.

New firm foundation in Minnesota has steadily declined since 2000. Figure 21 shows the number of new and young firms per 1,000 residents and the percentage of employment provided by these firms. The decline in new firm employment began in approximately 2003. Despite the economic recovery, the trend has continued through 2013. These numbers are especially worrisome, as recessions are often a propitious time for new companies. Better policies toward taxation, regulation, and access to capital are all important means of increasing new business formation.

Minnesota is not the only state to experience a decline in new business formation. The United States as a whole has seen a significant decline in both the number of new and young firms per capita and in the percentage of the workforce employed in these firms. Yet Minnesota has generally done worse than the national average. As Figure 22 shows, the state lags the rest of the country in the percentage of workers in new and young firms.

Given those numbers, it is not surprising that Minnesota also suffers from a shortage of entrepreneurs compared with the rest of the United States. Figure 23, based on Kauffman Foundation Index of Startup Activity data, shows the rate of new entrepreneurs in Minnesota and the United States from 1998 to 2014.

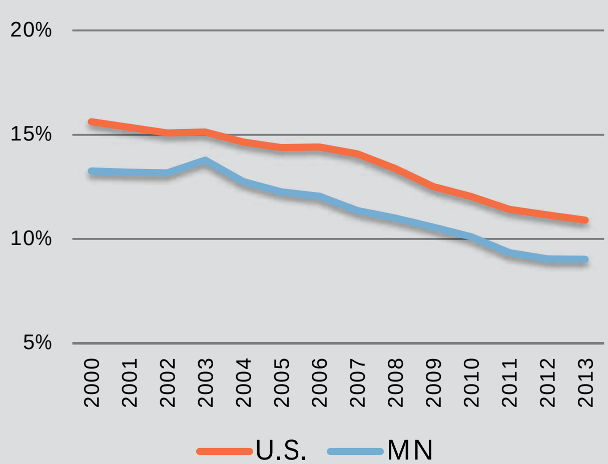
Minnesota's shortage of entrepreneurs is confirmed by U.S. Bureau of Economic Analysis data showing that the Minneapolis-St. Paul area ranks dead last among major metropolitan areas in the percentage of earnings from self-employment (see Figure 24).

The fact that Minnesota's job and output growth have been stagnant must be a source of concern, and the state's relative lack of business startups and entrepreneurship raise a real threat of worse stagnation in the future. Minnesotans are proud of the many world famous companies headquartered in their state. But the last Minnesota-bred company to earn a place in the Fortune 500 was UnitedHealth Group, founded in 1977. It has been nearly 40 years since a company founded in Minnesota has gone on to become one of the country's 500 largest.

C. Not Enough Minnesotans Are Employed In High-Tech Industries

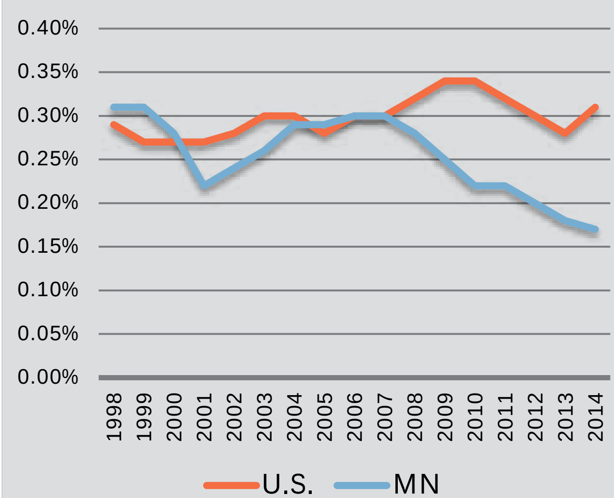
While job creation *per se* is important to any state, we have seen that the type of jobs being created

Figure 22: Percent of Employment in New and Young Firms

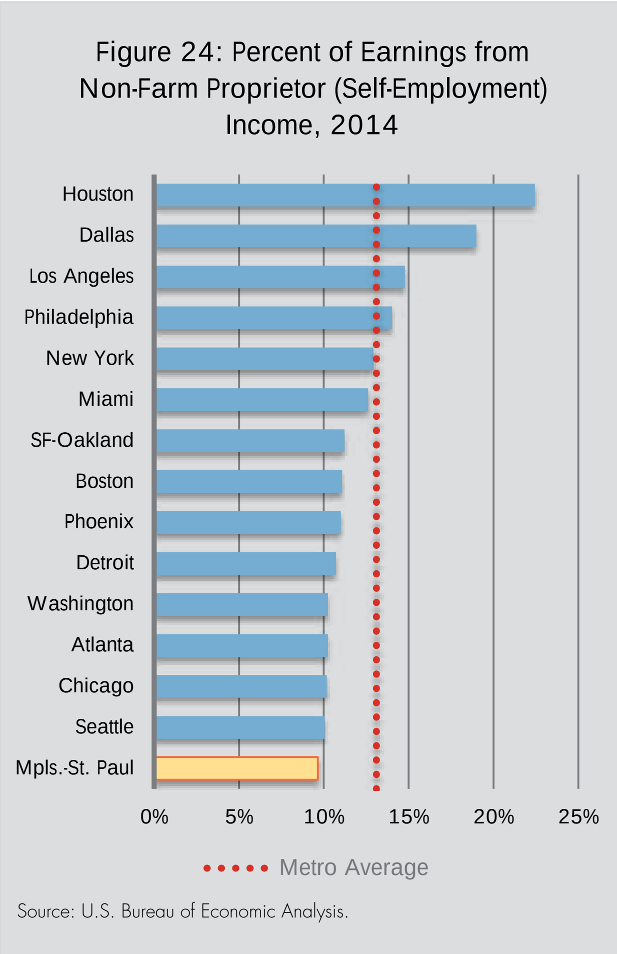


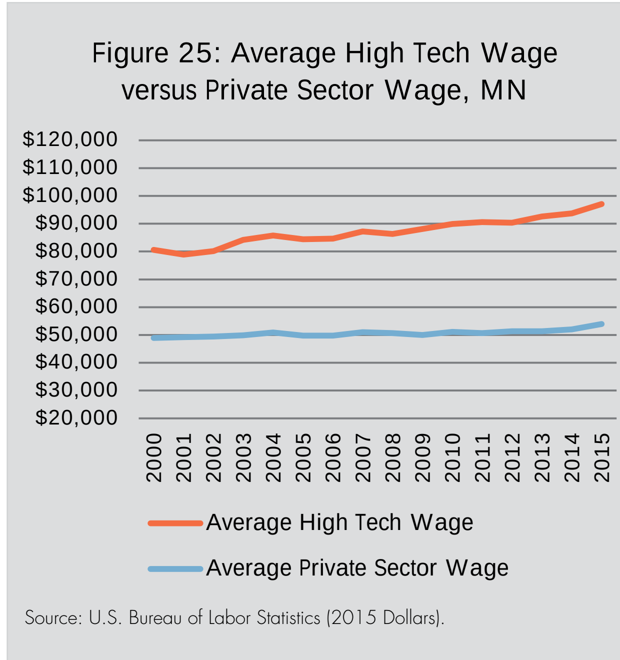
Source: U.S. Census Bureau.

Figure 23: Rate of New Entrepreneurs



Source: Kauffman Foundation Index of Entrepreneurship Data Files.





also matters a great deal. Jobs that are in traded industries in which a region has a competitive advantage are likely to be more secure and to pay higher wages than jobs that are not. These jobs also promise to bring in wealth from outside the region as other states and countries purchase more from Minnesota than they sell. Finally, jobs that require a great deal of training almost always come with higher salaries to justify the extra investment in human capital. For these reasons, high technology jobs are especially important to Minnesota, as to any other region. Figure 25 shows why. The average wage of a high tech job in Minnesota is nearly double the average of other jobs.[16]

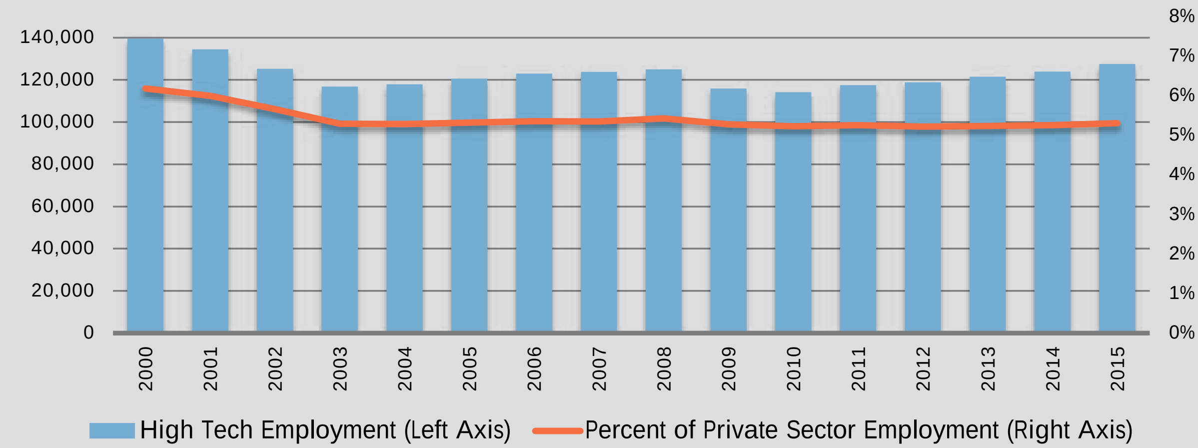
Given that disparity, it is troubling that the number of high tech jobs in Minnesota has fallen since the turn of the century. The decline has occurred both as a share of private sector employment and in the raw number of jobs available. High-tech jobs, as a share of total employment, have declined by almost a full percentage point (see Figure 26).

It is reasonable to assume that the decline in high technology jobs is related to Minnesota's lack of startups and entrepreneurship. It also illustrates the fact that the presence of large, high technology companies headquartered in the state does not necessarily translate into an abundance of high tech jobs *in Minnesota*.

D. Minnesota's Future Economy Is Threatened by a Lack of Investment Capital

It goes without saying that capital is required today to build the businesses of tomorrow. Here, again, Minnesota has been falling short in recent years.

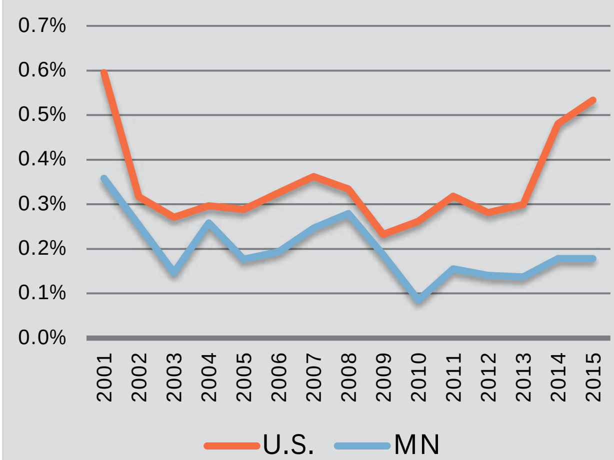
Figure 26: High Tech Employment, Minnesota



Source: U.S. Bureau of Labor Statistics.

Venture capital is one of the important potential sources of funding for new businesses. At one time, Minnesota had the reputation of being home to an above-average network of venture capitalists. Unfortunately, that is no longer the case. In recent years, as Figure 27 shows, Minnesota has fallen well below the national average in venture capital as a share of earnings. A lack of venture capital, like a shortage of new business and declining high tech employment, is a sign of a stagnant economy.

Figure 27: Venture Capital as a Share of Earnings

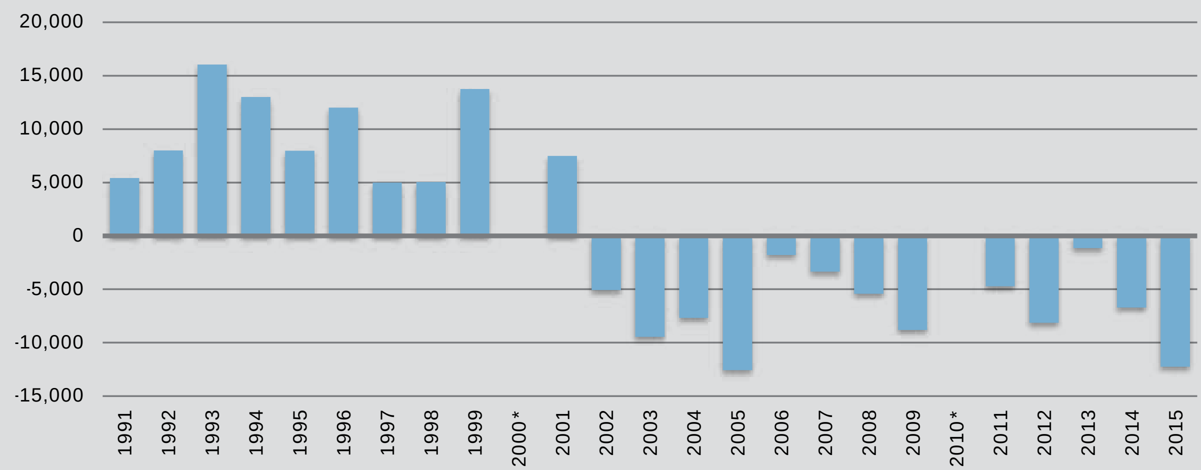


Source: PwC/NVAC Money Tree Report, Data: Thomson Reuters; and U.S. Bureau of Economic Analysis.

E. Minnesota Is Experiencing a Net Out-Migration of Its Most Productive Residents

Minnesota's state demographer released a report in January 2015 underscoring the importance of migration to filling Minnesota's future workforce demands. The natural rate of population change (births minus deaths) is projected to steadily decline year after year into the foreseeable future. Current migration trends already show Minnesota has been, on net, losing people to domestic migration since 2002 (see Figure 28). Although this outflow has been balanced by about 15,000 foreign immigrants each year, these individuals tend to have fewer skills

Figure 28: Net Domestic Migration, Minnesota



* Full year migration is data is not available for 2000 and 2010.
Source: U.S. Census Bureau, Population Estimates.

and are less integrated into the economy and society than the residents that leave. They also contribute less to the tax base.

This net outflow is a basic measure of Minnesota's perceived desirability as a place of residence, including but not limited to the economic opportunity the state offers. The net out-migration from the state since 2002 is a reflection of 1) residents choosing to leave Minnesota, and 2) residents of other states choosing not to move to Minnesota. The second factor is just as important as the first.

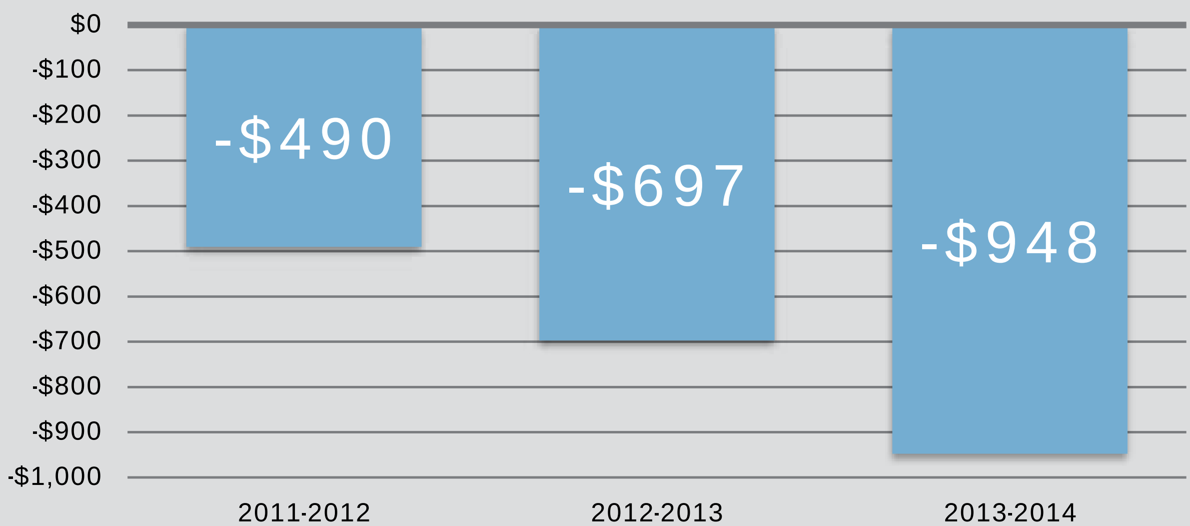
IRS data show that the net out-migration of residents results in a substantial net loss of household income. In 2012, Minnesota's net loss of household adjusted gross income to other states was $490 million. In 2013 it was $697 million. In 2014, after Minnesota's legislature enacted a significant income tax increase, the net loss in household income was $948 million (see Figure 29).[17]

Minnesota has long been accustomed to residents retiring and moving to warmer climates, but the IRS data show that retirees do not represent the largest share of the loss of residents to other states. For the years 2011 through 2014, households headed by persons aged 35 through 64 made up 89% of the net loss in residents, with people in their prime earning years, 45 through 54, representing the largest group.

Minnesota attracts low-income people and loses higher-income residents. Figure 30 shows that Minnesota gains residents with household incomes between zero and $25,000, and loses residents with incomes above $25,000. The largest net losses are among households with incomes between $100,000 and $200,000, and those above $200,000.

Minnesota has become one of the states least favored by high-income taxpayers. In 2012, Minnesota ranked 37th among the states in net migration of income for households with

Figure 29: Net Movement of Adjusted Gross Income To and From Minnesota (Millions of dollars)



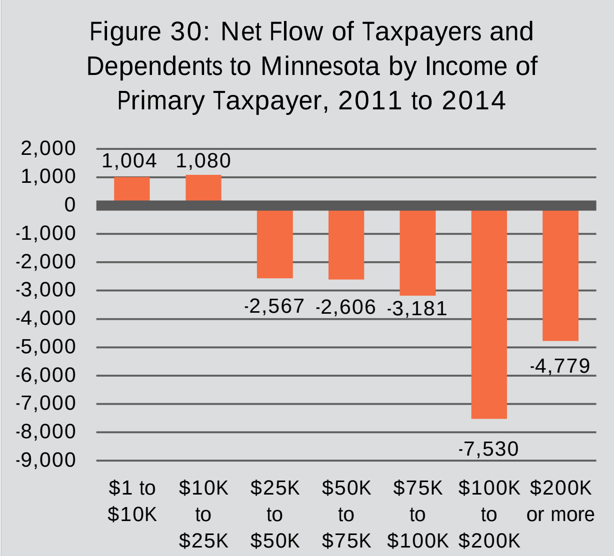
Source: Internal Revenue Service, Statistics of Income Division, U.S. Population Migration Data.

adjusted gross incomes exceeding $200,000. In 2013 Minnesota dropped to 46th place in this ranking, and in 2014, to 47th place, ahead of only Delaware, West Virginia, Connecticut and the District of Columbia.[18]

This focus on net loss of household income understates the significance of the annual out-migration to Minnesota's economy. Many of the upper-income people who leave Minnesota, or choose not to move to Minnesota, are job creators. Losing these residents has indirect, but potentially substantial, economic consequences. Further, these individuals are often leaders in their communities, contributors to churches, schools and civic organizations, and so on.

The IRS data show that Minnesota's net loss of households is overwhelmingly to lower-tax states. The top ten states to which Minnesota suffers a net loss of population are Florida, Arizona, Texas, Colorado, California, Georgia, Washington, North Carolina, Nevada and South Dakota. Of these, only California is a high-tax state, while five of the ten states impose no income tax at all. This suggests that Minnesota's high personal tax rates are an important factor driving the persistent out-migration documented by the IRS. Conversely, Minnesota's generous welfare programs presumably help to explain why the state experiences a net in-migration of residents who earn less than $25,000.

It will be difficult to turn around Minnesota's underachieving economy if every year the state loses thousands of its most productive and high income residents, and fails to attract equally productive residents from other states.



Source: Internal Revenue Service, Statistics of Income Division, U.S. Population Migration Data.

F. Minnesota's Racial Disparities Will Tend to Suppress Future Economic Growth

Minnesota has one of the widest gaps in economic achievement between white and minority citizens of any state. According to a report by Minnesota's demographer, 83 percent of all white working-age adults (ages 16-64) participate in the labor force, of whom only six percent were unemployed at the time of the report.[19] In contrast, only 68 percent of black working-age adults and 77 percent of Mexican Americans participate in the labor force. Of those, 19 percent of blacks and 10 percent of Mexican Americans were unemployed. Of workers with jobs, 77 percent of whites work full time compared to 71 percent for blacks and 74 percent for Mexican-Americans.

The median full-time, year-round white worker earns $50,000 while his black and Mexican-American counterparts earn only $38,300 and $28,900 respectively.

The demographer's report also finds that 11 percent of white Minnesotans aged 45-64 are disabled compared to 31 percent of blacks and 12 percent of Mexican-Americans. Eight percent of white Minnesotans, compared with 35 percent of blacks and 26 percent of Mexican-Americans, live in poverty.[20]

Worse, there is every reason to expect these wide disparities to continue into the next generation. At present, Minnesota has one of the widest disparities between white and minority achievement in public schools of any state. For the 2013 to 2014 school year, Minnesota reported the second widest gap in high school graduation rates between white and black students, as well as the second widest gap between white and Hispanic students.[21] In fact, Minnesota reported the lowest high school graduation rate for Hispanics in the country. Minnesota students also show among the widest gaps in scores on National Assessment of Educational Progress mathematics tests between white and black and between white and Hispanic students.[22]

At a time when many Minnesota companies are complaining about a lack of skilled workers, the state's poor performance in educating and integrating minorities represents a significant lost resource and a drag on the state's economy. Given the state's educational achievement gap, there is no reason to expect that situation to improve.

G. Official Forecasts Predict Continued Mediocre Economic Performance

Projections from Minnesota's own state agencies forecast that Minnesota will fail to keep pace with the United States on a number of measures. Minnesota Management and Budget publishes an economic forecast twice a year to aid in budgeting. As Table 2 shows, growth in Minnesota personal

Table 3: Projected Change in Real Personal Income and Employment

Real Personal Income Growth					
	2015	2016	2017	2018	2019
MN	3.4%	2.5%	2.7%	2.8%	2.4%
US	4.2%	3.2%	3.0%	2.9%	2.7%
Employment - Total Non-Farm Payrolls					
	2015	2016	2017	2018	2019
MN	1.4%	1.0%	0.9%	0.8%	0.7%
US	2.1%	1.8%	1.1%	1.0%	1.0%

Source: Minnesota Management and Budget.

income and employment are projected to lag the United States in every year through 2019.

The Minnesota Department of Employment and Economic Development (DEED) also periodically publishes detailed ten-year employment projections. Of twenty-two major occupations, as shown in Table 3, DEED projects Minnesota will outperform the nation in job creation on only three. Notably, Minnesota employment is projected to grow more slowly in a number of occupations that have historically provided a competitive advantage, including management, business and financial operations, and computer and mathematical occupations.

To sum up, Table 4 outlines the economic indicators analyzed here. This thorough review of Minnesota's recent economic performance reveals, at best, average performance compared to the rest of the United States. Over the past fifteen years, GDP—the most important metric of economic strength—grew at a below average rate in Minnesota. Minnesota's growth in productivity, personal income, and wages all rose at a distinctly average pace. At the same time, median household income declined for both Minnesota and the nation. Minnesota is also failing to keep pace with the nation on employment growth.

The unemployment rate, labor force participation rate, and level of income are the state's only apparent strengths. All of these strengths are tied to a work ethic that motivates a larger proportion of people to work in Minnesota than in most other states. Much of Minnesota's income advantage derives from the fact that Minnesota households, on average, include more earners. More earners per Minnesota household largely explains how higher per capita personal incomes and median household incomes can coexist with average annual wages and lower than average private sector productivity.

Looking to the future, a number of indicators suggest Minnesota's economy will further weaken in comparison to the rest of the nation. Fewer start-ups, less venture capital, and ongoing losses of population to domestic migration all point to lower business growth in the future. Perhaps most telling are the lackluster 10-year employment projections published by DEED.

III. How Minnesota Can Do Better

For most of its history, Minnesota has enjoyed a strong and diverse economy. That history built up a high standard of living. Minnesota has long held key advantages that should contribute to a more productive and prosperous economy. Minnesota is among the nation's leaders in educational attainment, family cohesion, workforce participation, health, cultural amenities and low crime. Minnesota also possesses abundant agricultural, mining, and timber resources. Moreover, while often considered flyover country,

Table 4: Projected Change in Employment by Occupation

SOC Code	Title	Percent Change, 2014 to 2024		Percentage Point Difference
		US	MN	
0	Total, All	6.5%	4.3%	-2.2%
110000	Management	5.5%	2.2%	-3.3%
130000	Business and Financial Operations	8.4%	5.6%	-2.7%
150000	Computer and Mathematical	13.1%	8.4%	-4.7%
170000	Architecture and Engineering	2.7%	0.7%	-2.0%
190000	Life, Physical, and Social Science	7.4%	5.2%	-2.2%
210000	Community and Social Service	10.5%	9.1%	-1.3%
230000	Legal	5.1%	4.7%	-0.4%
250000	Education, Training, and Library	7.6%	2.4%	-5.1%
270000	Arts, Design, Entertainment, Sports, and Media	4.1%	1.4%	-2.7%
290000	Healthcare Practitioners and Technical	16.4%	12.3%	-4.1%
310000	Healthcare Support	23.0%	17.6%	-5.4%
330000	Protective Service	4.5%	2.5%	-1.9%
350000	Food Preparation and Serving Related	6.5%	5.1%	-1.4%
370000	Building and Grounds Cleaning and Maintenance	6.2%	4.7%	-1.5%
390000	Personal Care and Service	13.2%	13.8%	0.6%
410000	Sales and Related	5.0%	3.7%	-1.3%
430000	Office and Administrative Support	2.0%	-0.9%	-3.0%
450000	Farming, Fishing, and Forestry	-5.9%	-5.3%	0.6%
470000	Construction and Extraction	10.1%	7.8%	-2.3%
490000	Installation, Maintenance, and Repair	6.4%	4.4%	-2.0%
510000	Production	-3.1%	-2.1%	1.0%
530000	Transportation and Material Moving	4.8%	2.4%	-2.4%

Source: Minnesota Department of Employment and Economic Development; and U.S. Bureau of Labor Statistics.

Table 5: Summary Data

SUMMARY		U.S.	MN	
Output	GDP, 15-yr. Trend	26.9%	26.0%	Average
	Private Sector Productivity (GDP/Worker), 2015	$117,706	$110,934	Below Average
	Private Sector Productivity (GDP/Worker), 15-yr. Trend	20.6%	21.0%	Average
Income	Per Capita Income, 2015	$47,669	$50,541	Above Average
	Per Capita Income, 15-yr. Trend	13.2%	13.6%	Average
	Average Wage, 2015	$52,937	$53,519	Average
	Average Wage, 15-yr. Trend	49.8%	51.0%	Average
Employment	Jobs, 15-yr. Trend	7.5%	6.4%	Below Average
	Unemployment Rate, 2015	5.3%	3.7%	Above Average
	Labor Force Participation Rate, 2015	62.7%	70.2%	Above Average
Leading Indicators	Percent of Employment in New and Young Firms, 2013	11%	9%	Below Average
	Rate of New Entrepreneurs, 2014	0.31%	0.17%	Below Average
	Percent of Earnings from Non-Farm Proprietors, 15 Largest Metros and MSP	13.1%	9.6%	Below Average
	Venture Capital as a Share of Earnings, 2015	0.5%	0.2%	Below Average
	Net Domestic Migration, 2015	NA	-12,242	Below Average
Projections	Real personal Income Projection, 2015 to 2019	12.3%	10.8%	Below Average
	Employment Projection, Non-Farm Payroll, 2015 to 2019	5.0%	3.5%	Below Average
	Employment Change Projection, 2014 to 2024	6.5%	4.3%	Below Average

Note: In comparing indicators that measured both anuual differences and trend differences between Minnesota and the U.S., any difference larger than 5 percent is considered above or below average. For instance, Minnesota's rate of new entrepreneurs is 45.2 percent less than the U.S. and, therefore, is considered below average.

Minnesota's central location gives its industry access to a number of important shipping avenues.

Despite all of these advantages and the state's prosperous past, the preceding analysis shows that Minnesota's recent economic performance is mediocre. Worse, data show a declining level of business creation, entrepreneurship, investment and job growth in key industries, all of which weaken future growth prospects. It seems clear that if the state continues on its present course, its economic performance will soon lag well behind that of most other states. Indeed, lagging growth is exactly what official economic projections predict will happen.

Why is Minnesota underperforming? Like other states and regions, Minnesota does suffer some drawbacks—most notably, its climate, which many consider inhospitable. But Minnesota hasn't gotten any colder in recent years. One obvious factor that appears to be largely nullifying Minnesota's historical, natural and cultural advantages is public policy. This is a good thing, because public policies can be changed. A 1979 report from the Minneapolis Federal Reserve underscores the importance of policy:

> Taxes and public services are also key elements of the business climate because, unlike the weather or natural resources, they are the result of human decisions and can be changed directly by government action. They are the elements of the business climate that state and local policymakers have the most control of.[23]

Minnesota is justly regarded as a blue state. Minnesota's taxes are among the highest and most progressive in the country. Acknowledging that tax rates "can be tricky to compare across state lines," Forbes relies on the Tax Foundation's tax burden tally as "the best state-by-state account of tax burden."[24] By this measure, Minnesota's tax burden consistently ranks in the top ten—seventh in FY 2010, sixth in FY 2011 and eighth in FY 2012. These top ten rankings all predate the significant income tax increase imposed on top earners in 2013, which likely pushed Minnesota's tax burden into the top five. Research from the Minnesota Center for Fiscal Excellence also shows Minnesota's income tax is among the five most progressive in the country.[25]

Minnesota's regulatory environment also ranks among the most burdensome and fits the blue-state mold. The Pacific Research Institute ranks Minnesota's regulation of small business 32nd, where 1 is the lightest regulatory burden and 50 the heaviest.[26] On this index, Minnesota ranked particularly poorly on family leave regulations, right-to-work, energy regulations, regulatory flexibility and telecommunications regulation. The Thumbtack Small Business Friendliness Survey gives Minnesota's overall small business friendliness a C grade and ranks the state 24th of the 35 states surveyed.[27] But on overall regulations, Minnesota received a D+ grade, ranking 29th of 35.

Are Minnesota's blue-state policies responsible for its economic underperformance? There is no question Minnesota's higher tax and regulatory burdens add to the cost of doing business. In recent years, Minnesota has increased these burdens while a number of other states, such as North Carolina, Indiana and Tennessee, have taken serious steps to reduce them. Without any other obvious weak points—beyond the inescapable realities of the state's northern locale—Minnesota's tax and regulatory burdens are among the only suspects at the scene of Minnesota's mediocre economic performance.

Certain data points presented in this report also draw links that strongly suggest Minnesota's blue-state policies are holding its economy back. The brightest spot in Minnesota economy—manufacturing—is the one where the tax burden is uncharacteristically light, compared with other states. Thus manufacturing is the exception that proves the rule. Next, nearly all of Minnesota's net out-migration of taxpaying households flow to lower-tax states. This suggests that high taxes are an important reason why prosperous families are both leaving Minnesota and choosing not to move to Minnesota. Finally, Minnesota's heavy regulatory burden on small business coincides with a below-average rate of new business formation.

Ultimately, no one piece of evidence can prove Minnesota's blue-state policies slow Minnesota's economy, but the weight of the evidence strongly suggests that this is the case. Fortunately for Minnesota, these policies are the result of human decisions and these decisions can be changed and improved upon. Coupling better tax and regulatory policies with the state's current advantages in educational attainment, work ethic, public safety and family structure will give Minnesota its best opportunity to reach its full potential.

Conclusion

Minnesota has historically been home to a diverse and competitive economy. Today, unfortunately, Minnesotans are largely living off that heritage instead of aggressively building upon it. Even though Minnesota continues to benefit from many positive social and cultural advantages, the state is no longer among the leaders in economic performance. Instead, Minnesota's recent economic performance has been mediocre at best. Worse, numerous trends point to a future that will cement Minnesota as a below average performer, compared with most other states. Below average economic performance is, in fact, what Minnesota's own agencies predict.

Minnesotans don't have to accept a sub-par future for their children. But if Minnesotans want a better future, they cannot continue the same policies that have led to an erosion of the state's historic competitiveness. There is no room for complacency. Minnesota can do better, but it will require a hard look at how current policies are undermining future growth. •

Endnotes

1 *E.g.*, Rick Haglund, State Policies Matter: How Minnesota's Tax, Spending and Social Policies Help it Achieve the Best Economy Among Great Lakes States (Michigan Future Inc., June 2014), available at http://www.michiganfuture.org/cms/assets/uploads/2011/08/7-11-14-FINAL-web-single.pdf; Ann Markusen, The High Road Wins: How and why Minnesota is outpacing Wisconsin," *The American Prospect*, May 8, 2015, available at http://prospect.org/article/high-road-wins; R.T. Rybak, "Gov. Walker, welcome to a state that works (just sayin')," *Star Tribune*, April 23, 2015, available at http://www.startribune.com/gov-walker-welcome-to-a-state-that-works-just-sayin/300994551/; C. Robert Gibson, "This Billionaire Governor Taxed the Rich and Increased the Minimum Wage — Now, His State's Economy Is One of the Best in the Country," *The Huffington Post*, February 24, 2015, at http://www.huffingtonpost.com/carl-gibson/mark-dayton-minnesota-economy_b_6737786.html?utm_hp_ref=tw; Patrick Caldwell, "The Unnatural: How Mark Dayton Bested Scott Walker—and Became the Most Successful Governor in the Country," *Mother Jones*, February 18, 2015, available at http://www.motherjones.com/politics/2015/02/mark-dayton-minnesota-governor-profile-scott-walker; Eleanor Clift, "Scott Walker Gets Schooled by His Neighbor," *The Daily Beast*, July 10, 2015, http://www.thedailybeast.com/articles/2015/07/10/scott-walker-gets-schooled-by-his-neighbor.html; Lawrence R. Jacobs, "Right vs. Left in the Midwest," *New York Times*, November 23, 2013, http://www.nytimes.com/2013/11/24/opinion/sunday/right-vs-left-in-the-midwest.html?_r=0; Paul Tosto, "Minnesota Economy Beats Wisconsin: 7 Charts, 1 Table, January 26, 2015, http://blogs.mprnews.org/newscut/2015/01/minnesota-economy-beats-wisconsin-7-charts-1-table/.

2 Barack Obama, Remarks by the President on the Economy – La Crosse Wisconsin, July 2, 2015, available at https://www.white-

house.gov/the-press-office/2015/07/02/remarks-president-economy-la-crosse-wi.

3 David Leonhardt, "The North-South Divide on Two-Parent Families," *New York Times*, June 11, 2015.

4 The U.S. Census Bureau estimates annual median household income through two different household surveys, the American Community Survey (ACS) and the Current Population Survey (CPS). To compare states, the Census recommends using the ACS. The ACS is based on a larger sample and provides the most accurate estimate for recent years, while the CPS is useful for examining historical trends. U.S. Census Bureau, Income and Poverty Estimates: Guidance on When to Use Each Survey (2015), available at https://www.census.gov/content/dam/Census/newsroom/press-kits/2015/income_poverty_guidance_2014.pdf. Some people have used the CPS data to claim Minnesota's median household income experienced substantial gains since 2010, but this is not supported by the ACS estimates. *See, e.g.*, Cynthia Bauerly, "Counterpoint: There's more to Minnesota than taxes," *Star Tribune*, March 21, 2016, available at http://www.startribune.com/counterpoint-there-s-more-to-minnesota-than-taxes/373004491/.

5 U.S. Census Bureau, American Community Survey.

6 The Brookings Institution, Pillars of Prosperity: Leveraging Regional Assests to Grow Minnesota's Economy (2015).

7 Id.

8 Id.

9 Id.

10 David Senf, "Road to Recovery," *Minnesota Economic Trends* (Minnesota Department of Employment and Economic Development, June 2015).

11 Id.

12 Metropolitan Council, "The Economic Competitiveness of the Twin Cities Region," *MetroStats* (March 2015), available at http://www.metrocouncil.org/getattachment/9778ef1c-9c29-44e4-9cf7-43f30b8c58e9/.aspx.

13 Id.

14 Michael Porter, Minnesota Competitiveness: Creating a State Economic Strategy, March 20, 2012, available at http://www.isc.hbs.edu/Documents/ced/states/State_Competitiveness---Minnesota_v312.pdf.

15 Senf supra note 10.

16 High technology employment includes industry sectors with a high intensity of technology-oriented workers as identified by the U.S. Bureau of Labor Statistics's *Monthly Labor Review*. The data here represent Level I industry sectors, which have the highest intensity of high technology workers and have been updated for the most recent NAICS codes. Daniel Hecker, "High-technology employment: a NAICS-based update," *Monthly Labor Review* (July 2005): 57-72, available at http://www.bls.gov/opub/mlr/2005/07/art6full.pdf.

17 Peter Nelson, Minnesotans on the Move to Lower Tax States 2016 (Center of the American Experiment, April 2016).

18 Id.

19 Minnesota State Demographic Center, *The Economic Status of Minnesotans: A Chartbook with Data for 17 Cultural Groups* (Minnesota Department of Administration, January 2016), pp. 27, 33, 37, 39, and 41 https://mn.gov/admin/images/the-economic-status-of-minnesotans-chartbook-msdc-jan2016-post.pdf. The difference in earnings is even greater for household incomes. The median income for white households is $64,100 and for blacks and Mexicans are only $28,800 and $38,500, respectively. *Ibid*: 45. Blacks and Mexicans are the two largest minorities in Minnesota with 4.0 and 3.4 percent of the population, respectively. *Ibid*: 17.

20 Id. at 41 and 49.

21 National Center for Education Statistics, *The Condition of Education 2016* (May 2016), available at http://nces.ed.gov/pubs2016/2016144.pdf. *See also* Christopher Magan, "Minnesota achievement gap worsening by nearly every measure," *Pioneer Press*, October 27, 2015, available at http://www.twincities.com/2015/10/27/minnesota-achievement-gap-worsening-by-nearly-every-measure/.

22 National Center for Education Statistics, 2015 Mathematics Grades 4 and 8 Assessment Report Cards: Summary Data Tables for National and State Average Scores and Achievement Level Results, available at http://www.nationsreportcard.gov/reading_math_2015/files/2015_Results_Appendix_Math.pdf.

23 David Dahl, "A Cloudy Future for Minnesota's Businesses," *Federal Reserve Bank of Minneapolis Quarterly Review*, Vol. 3, No. 2 (Spring 1979), available at https://www.minneapolisfed.org/research/qr/qr322.pdf.

24 Erin Carlyle, "The Best And Worst States For Taxes In 2016," *Forbes*, March 21, 2016, at http://www.forbes.com/sites/erincarlyle/2016/03/21/the-best-and-worst-states-for-taxes-in-2016/#64f45b50244d.

25 Minnesota Center for Fiscal Excellence, *Comparison of Individual Income Tax Burdens by State* (October 2015), available at https://www.fiscalexcellence.org/our-studies/income-tax-burden-study-2015edition-final.pdf.

26 Wayne Winegarden, The 50-State Small Business Regulation Index (Pacific Research Institute 2015), available at https://www.pacificresearch.org/article/the-50-state-small-business-regulation-index/.

27 Lucas Puente, 2016 Thumbtack Small Business Friendliness Survey: Methodology & Analysis (Thumbtack.com, June 2016).

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