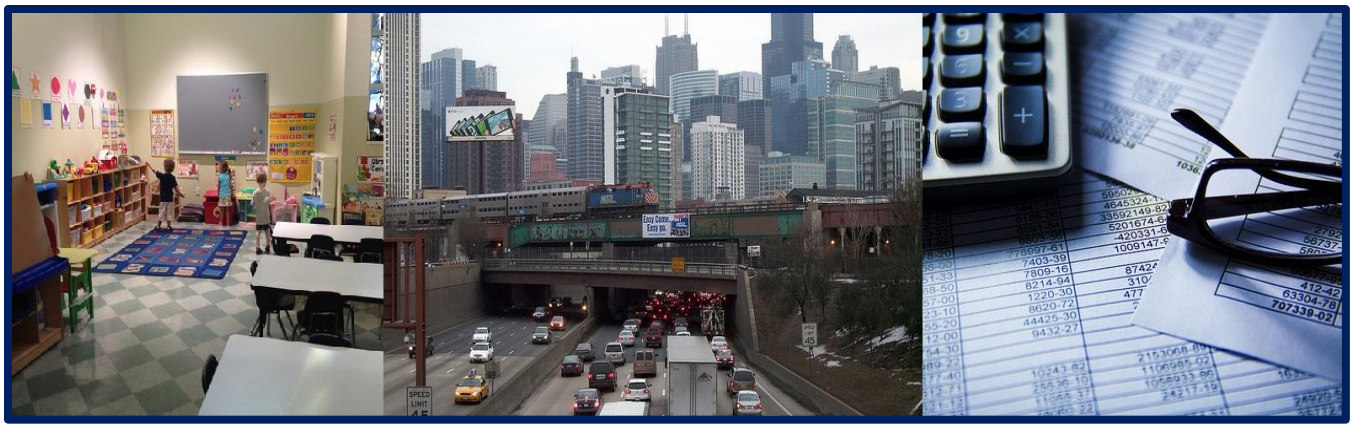
POLICIES THAT SUPPORT EMPLOYMENT



Investments in Public Education, Investments in Public Infrastructure, and a Balanced State Budget

Frank Manzo IV, MPP
Policy Director
Illinois Economic Policy Institute
fmanzo@illinoisepi.org

Robert Bruno, PhD
Director
Labor Education Program and the
Project for Middle Class Renewal
University of Illinois at Urbana-Champaign
bbruno@illinois.edu

A Higher Road for a Better Tomorrow
ILLINOIS ECONOMIC POLICY INSTITUTE
ILEPI

ILLINOIS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
School of Labor and Employment Relations, Labor Education Program

September 7, 2015

Executive Summary

Governments utilize policies to impact the efficiency of labor markets. These policies are designed to increase employment by encouraging people to look for work, make it easier for people to get to work, provide support for people who are working, create opportunities for employment, and help people become qualified to work. This report, conducted by researchers at the Illinois Economic Policy Institute and the Project for Middle Class Renewal at the University of Illinois at Urbana-Champaign, is a national investigation into an assortment of labor market and economic policies that support employment and should be fully implemented in Illinois.

There are four public policies that *directly* support employment:

1. **Improving the share of the population with a bachelor's degree** increases a state's human capital, productivity, and technological and innovative capacities. A one percentage-point increase in the share of the population with a bachelor's degree is statistically associated with a 0.80 percentage-point increase in the employment rate.
2. **Increasing the number of three and four year olds in state early childhood education programs** improves outcomes for children later in life and supports employment because parents, particularly mothers, re-enter the workforce instead of staying at home with their kids. A one percentage-point increase in the share of three and four year old children enrolled in state early childhood education programs also has a statistically significant impact, increasing the working-age employment rate by 0.07 percentage point.
3. **Improving and expanding roads, bridges, highways, subways, railroads, and waterways** all provide direct jobs to construction workers over the short term and allows businesses to efficiently bring their product to market in the long run. As a result, a one percentage-point increase in the highway share of state expenditures is statistically associated with a 0.39 percentage-point increase in the working-age employment rate.
4. **Reducing the average travel time commuting to work** increases worker-to-firm connectivity and improves economic output by providing individuals with more time to engage in productive activities rather than sitting idle in congested traffic. A 20-minute drop in mean travel time to work would increase the working-age employment rate by 0.09 percentage point.

In addition, there is one government practice that *indirectly* supports employment:

5. **Higher budget surpluses in state government** improve investor confidence in states and ensure that funds are available during recessions and other economic downturns. A one percentage-point increase in the state's budget surplus over total revenue is associated with a 0.20 percentage-point increase in the working-age employment rate.

Seven variables have *suggestive* direct impacts on the working-age employment rate. More health insurance coverage for workers, more pension coverage for workers, and more child care workers may all positively affect the working-age employment rate, but there is not enough evidence to draw a confident conclusion. A higher minimum wage, a higher personal income tax rate, a higher amount of corporate subsidies, and a higher violent crime rate may all negatively affect the working-age employment rate, though again there is not enough evidence to draw a confident conclusion.

There are nine additional policies and factors examined that have no apparent direct impact on the working-age employment rate. Among these are "right-to-work" policies and the state-level unionization rate. Contrary to political rhetoric, a higher union density does not reduce employment and related policies to limit the power of labor unions have no discernible impact on the working-age employment rate. A higher number of unemployment insurance weeks also has no impact on the employment rate. Small or modest increases in state sales taxes and corporate income taxes all also have no direct statistical impact on the employment rate. However, tax revenues do enhance the capacity to produce spending on the five major areas that were found to strongly support employment.

A data-driven policy proposal for the State of Illinois is subsequently presented. If the state's flat personal income tax rate is retroactively increased from 3.75 percent to 4.75 percent, the state would generate $3.5 billion in additional tax revenue. The proposal calls for dedicating this new $3.5 billion only to five government expenditures. First, $375,000,000 is to be spent on

grants for public higher education to reduce the cost of attending public universities. Second, $375,000,000 is to be spent on the construction of new highway, road, and bridge infrastructure. Third, $375,000,000 is to be spent on mass transit systems to reduce commute times to work, particularly in the Chicago metropolitan area. Fourth, $375,000,000 is to be spent doubling the number of children enrolled in state early childhood education programs. Fifth, $2,000,000,000 is to be used to reduce the deficit and meet the required income tax revenues needed to implement the budget offered by the nonpartisan, nonprofit Civic Federation (2015). Note that the Civic Federation's proposal includes other revenue-increasing and cost-cutting measures that close the rest of the state budget. While not a labor market policy, decisions to raise the necessary revenue to balance or create state budget surpluses are strongly correlated with an increase in the employment rate.

These public policy changes would boost employment. The working-age employment rate would increase by up to 2.4 percentage points in Illinois, amounting to nearly 180,000 new jobs supported. The policy changes would also add at least $2 billion on net to the Illinois economy, even after accounting for higher income taxes paid. The benefits significantly outweigh the costs.

The public policies that "work" for workers are all *investments* using taxpayer dollars. Government investments in transportation infrastructure, in the education of residents of all ages, and in future public expenditures all support employment. Other policy changes, such as curtailing union membership or lowering the minimum wage, do not increase the employment rate in any way. The State of Illinois should take steps to increase investment in public education, increase investment in public infrastructure, and balance the state budget.

Table of Contents

About the Authors

Frank Manzo IV, MPP is the Policy Director of the Illinois Economic Policy Institute (ILEPI). He earned a Master of Public Policy from the University of Chicago Harris School of Public Policy, a Bachelor of Arts in Economics and Political Science from the University of Illinois at Urbana-Champaign, and an Advanced Certificate of Labor Studies from the University of Illinois. He specializes in labor market analysis, economic development, infrastructure investment, the low-wage labor force, and public finance. He can be contacted at fmanzo@illinoisepi.org.

Robert Bruno, PhD is a Professor at the University of Illinois at Urbana-Champaign School of Labor and Employment Relations and the Director of the School's Labor Education Program. He also directs the Project for Middle Class Renewal at the University of Illinois at Urbana-Champaign. His research focuses broadly on working-class and union studies issues. He earned his Doctor of Philosophy in Political Theory from New York University and his Master of Arts in Political Science from Bowling Green State University. He can be contacted at bbruno@illinois.edu.

Section 1: Background Information

Introduction

Governments utilize policies to impact the efficiency of labor markets. These policies are designed to increase employment by encouraging people to look for work, make it easier for people to get to work, provide supports for people who are working, create opportunities for employment, and help people become qualified to work. For example, policymakers have long recognized child care as a key ingredient in parents' employment decisions (Gennetian et al., 2004). The welfare reform legislation of the 1990s created a host of sanctions for noncompliance with work requirements and were found to triple the risk of "disconnecting" women from employment (Moore et al., 2012). Other studies have documented that institutional arrangements (i.e., employment supports) mediate the costs to women's part-time and intermittent employment and that "employment continuity" is highest among countries in which the state provides support for working mothers (Stier et al., 2001). Moreover, studies on incarceration laws indicate that the United States made a large and coercive intervention into the labor market through the expansion of the penal system (Western & Beckett, 1999).

Research has also demonstrated the labor market policies such as unemployment benefits, job security legislation, and payroll taxes are often complementary in that the effect of each policy is greater when implemented in conjunction with the other policies than in isolation (Coe & Snower, 1997). Scholars have provided a broader critique of labor markets by pointing out that many jobs lack the elements to sustain long-term viable employment and that job quality is becoming more unequal in the United States (Kalleberg et al., 2000). On the other hand, international studies have found that the implementation of active labor market policies has a positive effect on employment rates (Estevão, 2007). Scholars have also documented the major judicial decisions and legislative initiatives that shape the growth of various types of maternity leave policies (Trzcinski & Alpert, 1994).

Extensive historical analysis has persuasively argued that the idea of full employment has been continually thwarted by labor market policy in the United States (Weir, 1992). Investigations as to why full employment has been erased as a major political issue in the United States have also been conducted (Weir, 1987). Other research has examined the need for school-to-work programs or other means of increasing early job market stability (Neumark, 2002). Furthermore, studying policies that are created and enforced at the state level are appropriate because "subnational industrial policies" to create jobs and economic growth have dramatically expanded (Jenkins, Leicht, and Wendt, 2006).

This report, conducted by researchers at the Illinois Economic Policy Institute and the Project for Middle Class Renewal at the University of Illinois at Urbana-Champaign, is a national investigation of some of the standard labor market and economic policies that support employment. The findings indicate that four specific policies should be fully implemented in Illinois while maintaining a balanced budget. The report investigates public policies and economic phenomena across 24 different variables. Section 1 provides background information on the employment rate, including a review of economic research, how the data were collected, and limitations to the analysis. Section 2 evaluates how strongly each policy or economic variable correlates to a higher employment rate, without controlling for other factors. Section 3 subsequently analyzes the unique and independent effect that each variable has on employment, ultimately concluding that five public policies and practices actually make a difference. With this knowledge, Section 4 presents a data-driven $3.5 billion policy proposal to support employment in the State of Illinois. Finally, Section 5 concludes by offering implications and recapping key findings.

Explanation of the Employment Rate

The official unemployment rate is the number of unemployed residents as a percent of the civilian labor force. The civilian labor force is defined as the number of employed persons plus those who do not have a job but want and are looking for one. The unemployment rate is thus ascertained by dividing the unemployed by both the employed and the unemployed. The rate excludes persons who are below age 16, incarcerated criminals, and all personnel on active military duty.

The Bureau of Labor Statistics (BLS) from the U.S. Department of Labor publishes five measures of "labor underutilization" in addition to the official unemployment rate. The BLS also has rates based on duration of unemployment (15 weeks or longer), job losers and workers with temporary jobs, and discouraged workers who have stopped looking for a job. The fifth and six measures include "persons marginally attached to the labor force," who are neither working nor looking for work but indicate

that they want and are available for a job and have looked for work at some point in the past 12 months. The sixth measure, simply called U-6, includes underemployed workers and is the most comprehensive unemployment rate (BLS, 2015).

It is important to note that the unemployment rate is not the only, or even the best, indicator of a state's labor market performance. Economists often prefer the *employment rate*, which is simply the number of residents in an area that have at least one job divided by the total population.[1] Consider two economies with 100 residents: State A and State B. State A has 50 civilians in the labor force – 45 workers and 5 jobless who are looking for a job. State B has 25 in the civilian labor force – 24 workers and 1 jobless who is looking for a job. State A's unemployment rate is 10 percent and its employment rate is 45 percent.[2] State B's unemployment rate is 4 percent and its employment rate is 24 percent.[3] Which economy is stronger? Although State B's economy has a lower unemployment rate, it also has an inferior employment rate because 76 percent of people are not working or trying to work. All else equal, State A has a healthier economy despite a higher unemployment rate.

Regardless of whether able-bodied residents are unemployed and looking for work or are out of the labor force and do not want jobs, nonworking individuals all rely on the productive output of the employed. For example, the unemployed rely on tax revenues generated by workers through unemployment insurance to maintain an acceptable quality of life while they search for new jobs. The intended aim of many government programs is also to induce employment growth, and unemployed persons benefit if tax dollars are effectively spent in ways that stimulate the economy. On the other hand, individuals who are out of the labor force because they are not looking for work also rely on support from workers. A stay-at-home parent relies on the steady income of his or her partner to care for their family. Retirees rely on a high level of employment so that current workers generate enough tax revenues to fund their retirement income. Regardless of their reason for not working, U.S. residents who do not have a job still need food, water, shelter, clean air, and security. A higher employment rate generally increases economic output, raises tax revenues, and improves the quality of life for all individuals in an area.

Gallup and Healthways have interviewed more than 175,000 adults across all 50 states every year since 2008 to calculate a state-level "Well-Being Index." The index is based upon five factors of satisfaction: sense of purpose, social relationships, financial security, connection to community, and physical health. Figure 1 depicts the relationship between 2013 working-age employment rates and the average state rankings from 2008 through 2013 (i.e., all years for which the index had been calculated to that point), as reported by Gallup-Healthways (2014). A rank of 49 would be the "best" possible ranking, representing a state that had the highest reported well-being in every year of the survey. The closest score to this level of well-being is the 47.7 average for Hawaii. A rank of 0 is "worst" and would represent a state that had the lowest reported well-being in all years. West Virginia placed last in five of the six years, receiving a score of 0.2. Illinois ranked 22.3 on average from 2008 through 2013, in the bottom half of all states but near the median (Figure 1).

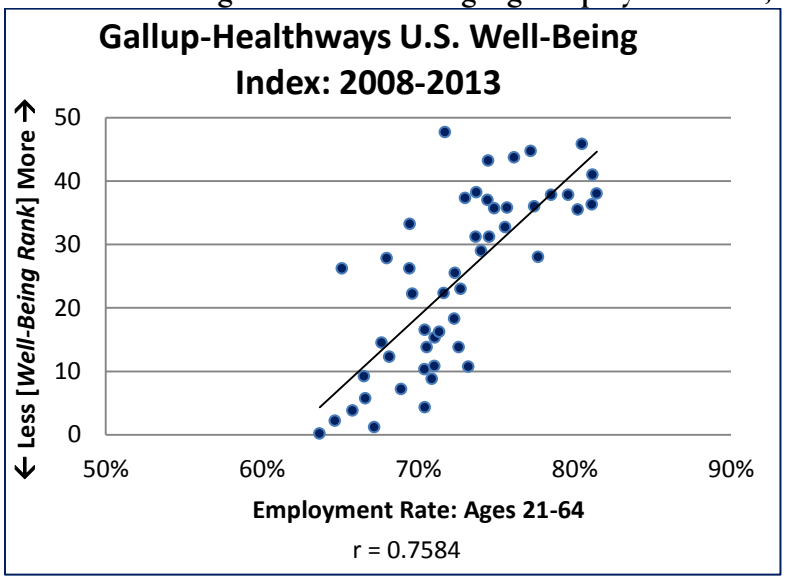
Higher working-age employment rates are strongly correlated with greater well-being in states (Figure 1). In general, as the state-level employment rate of workers ages 21 through 64 increases, the corresponding state-level well-being ranking increases. The correlation between the two measures is a strong 75.8 percent. Employment can have positive impacts on an individual's sense of purpose and financial security, as well as on their physical health if their compensation includes employer-provided health insurance. Valuable relationships with coworkers, colleagues, and local organizations may also improve the well-being index through the social and community elements. Thus, while the working-age employment rate is only one economic metric, results from Figure 1 reveal that policies which support a higher employment rate are likely to have positive impacts on personal happiness and societal well-being.

[1] The employment rate is also sometimes called the "employment ratio," the "employment-to-population ratio," or the "employment share."

[2] Unemployment rate = U/(E+U) = 5/(45+5) = 0.10; Employment rate = E/P = 45/100 = 0.45

[3] Unemployment rate = U/(E+U) = 1/(24+1) = 0.04; Employment rate = E/P = 24/100 = 0.24

FIGURE 1: Well-Being Rank and Working-Age Employment Rate, 2013



Sources: CEPR, 2014; Gallup-Healthways, 2014.

Review of Country-Level Economic Research

The Organization for Economic Cooperation and Development (OECD)– which includes the United States and 33 other developed economies committed to democracy, economic progress, and world trade– has provided "General Policies to Improve Employment Opportunities for All" (OECD, 2006). Reflecting on experiences from 1994 through 2004, the OECD paper draws conclusions for advanced market economies. The following are some of the OECD's lessons for policymakers and lawmakers:

- Overly generous unemployment benefit systems have the potential to create large labor supply distortions;
- An appropriate mix of properly designed active labor market programs can reduce unemployment by improving the efficiency of the job-matching process and by enhancing the skills of those who take part in them;
- Reforms should be considered where collective bargaining practices result in downward real wage rigidities or too little differentiation of relative wages by skill, region or other dimensions;
- A moderate minimum wage generally is not a problem, but adequate allowance for a sub-minimum wage for young workers is essential;
- The main constraint for the overall tax on labor earnings is to maintain budget balance;
- Employment protection legislation– which increases job security for workers but can create a barrier to hiring for employers– that is too strict can reduce labor turnover below an optimal level, disadvantaging youth and women;
- Governments can play an active role in promoting "family-friendly" employment policies by facilitating access to child care and parental leave; and
- Human capital investments for achieving strong economic growth and mitigating poverty and inequality should be demand-driven and include government co-financing.

Thus, the OECD largely concludes that employment is supported by some level of active labor market intervention to increase worker skills and education, a moderate minimum wage, balanced government budgets, and access to child care and parental leave. The OECD generally contends that high unemployment insurance, high union density, and high protections to increase job security all have negative impacts on employment.

Kamilia Fialová (2011) from Charles University in Prague has studied the effect of labor market institutions on the employment rates of OECD and European Union countries. Fialová finds that employment protection legislation significantly reduces the employment rate. High labor taxes also lower the employment rate, though the effect is relatively small. On the other hand, active labor market programs, labor unions, and the unemployment benefit replacement rate (i.e., the ratio of unemployment benefits received as a percentage of previous earnings) have *stimulating* effects and increase the employment

rate. There is also no definitive evidence that a higher minimum wage has any impact on a country's employment rate. These findings tend to align with the OECD lessons that active interventions to increase worker skills and education, a moderate minimum wage, and access to child care and parental leave all support employment while high protections to increase job security have negative impacts. On the other hand, Fialová's analysis calls OECD's cautionary conclusions on high union density, high unemployment insurance, and taxes to balance the budget into question (Fialová, 2011).

Henrik Jacobsen Kleven (2014) from the London School of Economics has found that, contrary to economic theory, countries with high taxes and generous welfare systems tend have higher employment rates among individuals ages 20 through 59. Kleven finds that a person may be more likely to work when his or her country provides public services that make working easier, "including child care, elderly care, and transportation." In effect, these policies are subsidies that reduce the costs of market work, encouraging labor supply and mitigating the negative impacts of higher taxes. Scandinavian countries, in particular, impose high taxes and provide significant public services, "and yet those countries feature very high employment" (Kleven, 2014). M. Christian Lehmann (2004) of the University of Brasilia also finds that large cash transfers to low-income individuals have a stimulating effect on labor supply (Lehmann, 2014).

The studies by Fialová, Kleven, and Lehmann imply that economic research should consider the *benefits* of spending on public services in addition to the *costs* of higher taxation. The suggestion to investigate policy benefits is echoed by Sören Blomquist, Vidar Christiansen, and Luca Micheletto (2009), respectively of Uppsala University, the University of Oslo, and the University of Milan. The authors study the examples of child care, elderly care, primary education, and health care and conclude that "there is a potential gain in efficiency where public provision of such services replaces market purchases." After factoring in public expenditures, economies with higher tax rates can have less severe distortions than those with lower tax rates. This helps explain, in part, why a paper by Emmanuel Saez of the University of California, Berkeley, Joel Slemrod of the University of Michigan, and Seth Giertz of the University of Nebraska (2010) finds that the optimal *top* federal income tax rate is 68.4 percent in America, substantially higher than the current 39.6 percent (Saez et al., 2010).

Country-level evaluations therefore generally find that active labor market policies such as employment subsidies and apprenticeship programs, access to child care and elderly care, access to cheap and efficient transportation, and public provision of educational services all support employment. A moderate minimum wage and moderate tax burden appear to have no significant impact on the employment rate. Labor unions and unemployment benefits have mixed impacts, while significant protections to increase job security have shown some negative effects on the employment rate. A proactive "flexicurity model," as espoused by Denmark, may thus be the best labor market policy. This way of organizing the labor market allows flexible hiring and firing practices but has significant security measures, including a strong social safety net and active labor market programs to educate workers, support families, and promote high wages (Andersen et al., 2011).

Sections 2 and 3 investigate whether these public policies, as well as other government programs and economic factors, are linked to high working-age employment rates among U.S. states.

Data, Methodology, and Limitations

This report investigates state-level data on the working-age employment rate and its relationship with 23 other variables. The latest year for which data are available for all the variables and the working-age employment rate is 2013.[4] Data are collected from ten public sources:

1. The 2013 *Current Population Survey* Outgoing Rotation Groups from the Bureau of Labor Statistics of the U.S. Department of Labor and the U.S. Census Bureau, as provided by the Center for Economic and Policy Research (CEPR, 2013);
2. The 2013 *American Community Survey* 1-Year Estimates by the U.S. Census Bureau (Census, 2014a);
3. 2013 *Annual Survey of State Government Finances* by the U.S. Census Bureau (Census, 2014b);
4. The 2013 *State Transportation Statistics* by the Bureau of Transportation Statistics of the U.S. Department of Transportation (USDOT, 2015);

[4] For a CSV (Comma Delimited) file with the entire dataset and accompanying source links, contact author Frank Manzo IV at fmanzo@illinoisepi.org.

5. The 2013 Wage and Hour Division of the U.S. Department of Labor (USDOL, 2015);
6. The 2013 "Unemployment Rates and Weeks of Unemployment Insurance (UI) Available" by the Center on Budget and Policy Priorities (CBPP, 2013);
7. *Crime in the United States, 2013* by the Federal Bureau of Investigation (FBI, 2013);
8. *The State of Preschool 2013* by The National Institute for Early Education Research by the Graduate School of Education at Rutgers University (NIEER, 2013);
9. The consolidation of Good Jobs First data by the Mercatus Center at George Mason University in "Ranking Known State Subsidies to Private Businesses" (De Rugy, 2014);
10. *Child Care in America: 2013 Fact Sheets* by Child Care Aware of America (CCA, 2013).

This report primarily uses two methods to understand the relationship of a given public policy or economic phenomenon with the working-age employment rate. First, in Section 2, correlation coefficients are calculated and linear graphs are plotted to identify general associations, uncontrolled for other factors. Correlation coefficients range from -100 percent to +100 percent. A -100 percent correlation indicates that the two variables have a perfectly negative relationship with one another, while a +100 percent correlation implies a perfectly positive relationship. A correlation of 0 percent would mean that the variables have no relationship to one another. The following parameters, in accordance with standards of social science in both Turkmen (2013) and Cohen (1992), are used to determine the "strength" of a relationship between two variables when evaluating correlation coefficients.

- 0.0 to 9.9 percent: No relationship;
- 10.0 to 29.9 percent: Weak relationship;
- 30.0 to 49.9 percent: Moderate relationship;
- 50.0 percent or greater: Strong relationship.

Section 3 uses an ordinary least squares (OLS) regression model to parse out the actual and unique impact of a particular variable on the working-age employment rate. This technique describes "how much" a factor is responsible for increasing or decreasing the employment rate. The model includes 17 educational, transportation, labor market institution, poverty, inequality, tax, and government spending variables.

In both sections, the working-age employment rate is defined as the percentage of the population ages 21 through 64 with a job. These age bounds are used to understand employment for the group of individuals that has had time to complete some college or an associate's degree and has not yet reached the full retirement age to receive supplemental income from the U.S. Social Security Administration (SSA).

There are limitations to this analysis. First, the report focuses on the working-age employment rate, which is only one indicator of labor market performance and societal well-being. Second, the study only investigates data from a single year: 2013. While the analysis can explain current (i.e., *level*) differences in the working-age employment rate between the 50 U.S. states and estimate effects of policy changes, it cannot predict how each variable changes the employment rate over time (i.e., *growth*). For instance, the report can establish whether the number of public road miles has a positive impact on the present employment rate but cannot determine what effect more public road miles would have on employment growth ten years from now. Finally, there are only 50 observations in the analysis: The 50 U.S. states. The small sample size could limit the conclusions that can be drawn from statistical analysis. However, the 50 states afford economists and labor researchers with 50 laboratories in which different combinations of public policies operate. In addition, the sample of 50 U.S. states is larger than the sample of OECD member countries (N= 34) and European Union member countries (N= 28). Since the states are all part of an integrated national economy with a unified federal government, this analysis also implicitly controls for national "fixed effects." As an example, interest rates may differ between the United States, the European Union, and Japan, but studies evaluating OECD countries may not factor in this difference, biasing the results. A 50-state study does not suffer from this potential flaw.

Section 2: Introduction to Variables and Evaluation of Correlation Coefficients

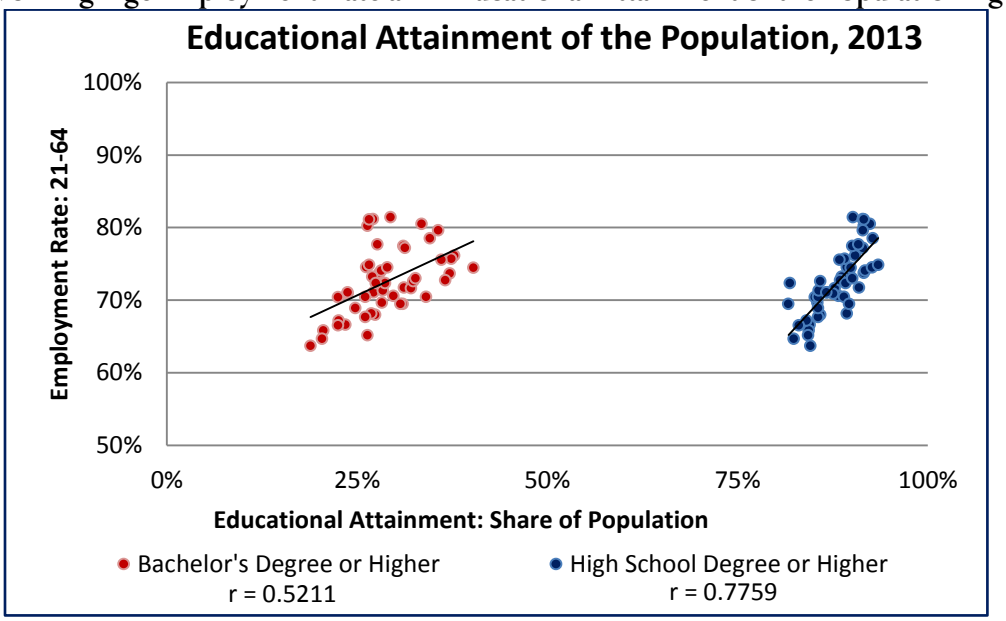
Education and Child Care

Perhaps the most successful function of government in fostering economic development has been to educate the populace. In *American Economic History*, Johnathan Hughes and Louis Cain (2003) of Northwestern University note that the 20th Century was the "human-capital century." In 1910, only about 10 percent of America's youth graduated from high school. Thirty years later, over 50 percent of 18 year olds received a high school diploma. This subsequently "set the stage for the massive increase in college education that took place during the post-World War II years." The returns to education were high, and demand for educated blue-collar workers rose considerably. "It is no coincidence," Hughes and Cain conclude, "that, at the time America began to pull ahead of other countries in terms of income, it also pulled ahead of other countries in terms of education" (Hughes & Cain, 2003).

More recent research corroborates this conclusion. Blomquist, Christiansen, and Micheletto (2009) find that providing public education significantly improves the employment rate. An extra year of education for an individual increases his or her earnings by 7 to 10 percent and an additional year of education on average in the population raises a country's economic growth rate by 1.2 percentage points (Stevens & Weale, 2003; Barro, 1997). Finally, evidence by Noah Berger and Peter Fisher (2013) of the Economic Analysis and Research Network finds that a well-educated workforce raises median wages and builds a foundation for shared economic prosperity within a state.

There is a strong positive relationship between the level of educational attainment and the corresponding working-age employment rate in states across America (Figure 2). As the share of the population with a bachelor's degree or higher increases, the share of the population with a job also increases on average, with a strong correlation of 52.1 percent. Moreover, there is an even stronger correlation (77.6 percent) between the percentage of residents with at least a high school degree or equivalent and the employment rate. As indicated by the data, public policies that support education and improve the number of workers with college degrees are also very likely to improve the employment rate, providing businesses and organizations with the skilled workers they demand.

FIGURE 2: Working-Age Employment Rate and Educational Attainment of the Population Ages 18+, 2013



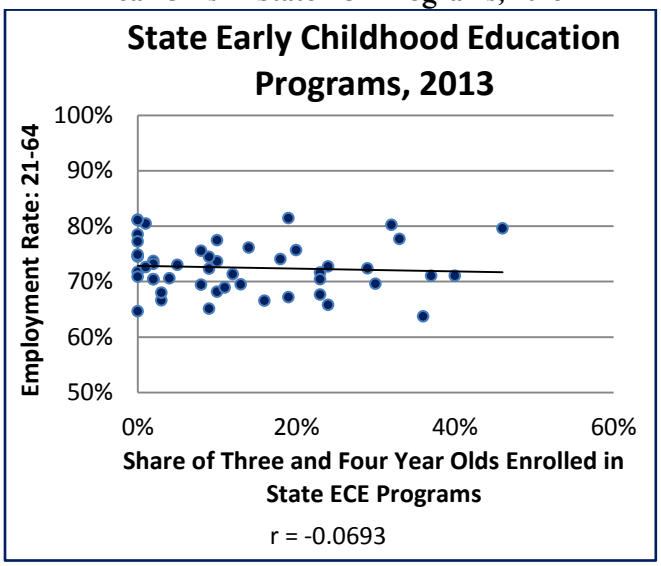
Sources: CEPR, 2014; Census, 2014a.

Economic research demonstrates that early childhood education (ECE) programs have substantial positive benefits over time on both school performance and later labor market outcomes (Calman & Tarr-Whelan, 2005; Kleven, 2014). The significant impact generated by child-care and pre-kindergarten education has led policymakers across the nation to expand these programs. If more three and four year olds are enrolled in state ECE programs, a higher share of their parents might be

expected to enter the labor force and work. However, at first glance, early childhood education seems to have no relationship to the employment rate, with a correlation of -6.9 percent (Figure 3). This lack of relationship is one of the few simple correlations that change considerably in the full economic models in Section 3. Once other factors and public policies are included in the analysis, the effect of state ECE programs on the employment rate is positive and large.

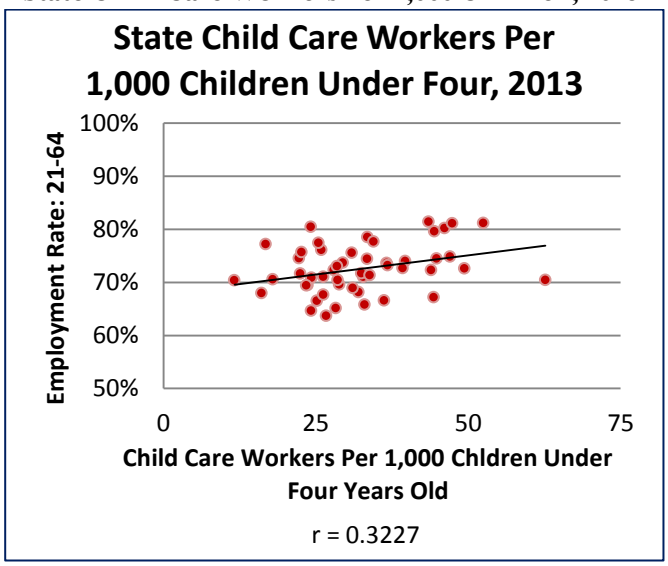
Furthermore, public policy research also finds that publicly-provided child care supports parents entering the workforce (Gennetian et al., 2004; Kleven, 2014). Figure 4 evaluates the association between the number of state child care workers per 1,000 children ages 4 and under and the working-age employment rate. There exists a moderate positive relationship of 32.3 percent. The trend line *suggests* that cutting state child care entirely in Illinois would reduce the working-age employment rate by 0.03 percentage point, amounting to an employment decline of 2,350 workers across the state. This negative impact would be in addition to the 18,870 loss in state child care occupations, and would be particularly harmful to low-income families.

FIGURE 3: Working-Age Employment Rate and 3-4 Year Olds in State ECE Programs, 2013



Sources: CEPR, 2014; NIEER, 2013.

FIGURE 4: Working-Age Employment Rate and State Child Care Workers Per 1,000 Children, 2013



Sources: CEPR, 2014; CAA, 2013.

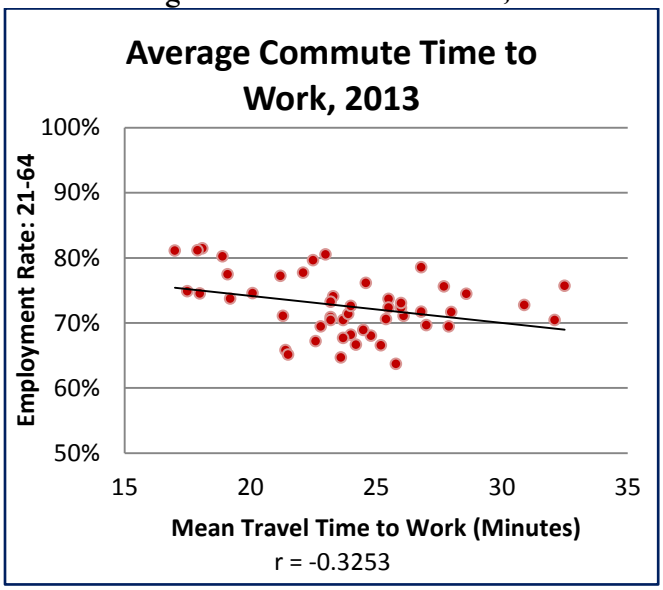
Transportation Funding, Infrastructure, and Utilization

All economic debates that discuss costs are incomplete without also considering benefits. Every action has a cost, even if there is not a defined price attached to it. Going to work, for instance, has many costs: The price of fuel or the fare to use public transit, the wear and tear placed on the worker's vehicle, and even the risk of a transportation-related injury or death. But there are also "opportunity costs" of going to work. The individual could otherwise be learning a new skill, spending time with family, exercising, or sleeping. Despite these costs, people go to work every day, because the monetary and personal fulfillment *benefits* of going to work outweigh the *costs*.

For every potential worker, however, the cost becomes too large at some point. As an extreme example, it would be very unlikely for an individual to accept a job if the commute takes four hours in one direction. The fuel and time costs would simply be too burdensome. This thought experiment, though exaggerated, is important in understanding how investments in transportation infrastructure– especially those which increase worker-to-firm connectivity– are important in supporting employment. When individuals can easily get to a job, they are more likely to enter the labor force.

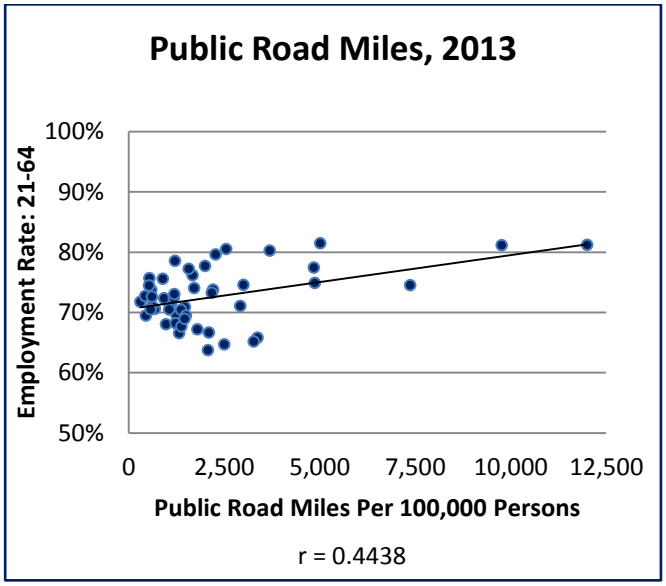
Figures 5 and 6 generally demonstrate this economic phenomenon. Figure 5 depicts the relationship between the average commute time to work reported in the Census Bureau's 2013 *American Community Survey* and the working-age employment rate. There is a moderate negative relationship of -32.5 percent, meaning that longer average commute times are associated with lower employment rates. Additionally, there is a moderate positive relationship (44.4 percent) between the total number of public road miles per 100,000 residents in a state and the employment rate of residents ages 21 to 64 (Figure 6). Increased road availability and decreased congestion tend to support better employment outcomes.

FIGURE 5: Working-Age Employment Rate and Average Commute Time to Work, 2013



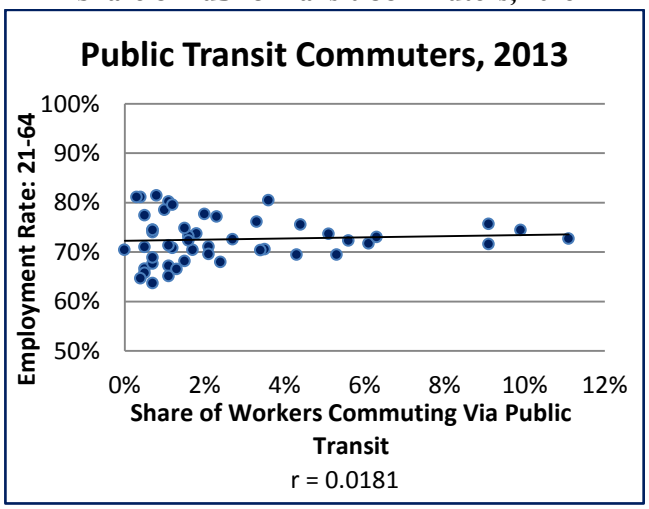
Sources: CEPR, 2014; Census, 2015a.

FIGURE 6: Working-Age Employment Rate and Public Road Miles Per 100,000 Persons, 2013



Sources: CEPR, 2014; USDOT, 2015; Census, 2015a.

FIGURE 7: Working-Age Employment Rate and Share of Public Transit Commuters, 2013



Sources: CEPR, 2014; Census, 2015a

The share of workers using public transportation to commute to their job also appears to have no discernible relationship (1.8 percent), possibly because only a small fraction of American workers use mass transit systems– under 10 percent in every state except New York (Figure 7). Since the share of commuters taking public transit has no negative impact, a possible conclusion is that the *mode* of transportation generally does not matter for the employment rate. It does, however, disproportionately impact low-wage users and an increase in mass transit availability may tend support employment among minimum wage workers.

Information on government spending on, and revenues to fund, transportation infrastructure can be found in the "Taxes and Government Spending" subsection on Page 14.

Labor Market Institutions

Economies are organized around labor market institutions. Governments pass various laws and programs to address perceived socioeconomic problems that arise when the market is unregulated. This is because private markets are not always efficient. As examples, information may not be available to all private actors, monopolies may control a sector, or a market may overprovide or underprovide a good in a manner that is socially suboptimal (called "externalities" in economics). The division of the economic "pie"– the winners and losers of a policy change in the labor market– is also often a consideration for lawmakers. As a result, policies impacting labor market institutions are among the most controversial in whether or not they support employment.

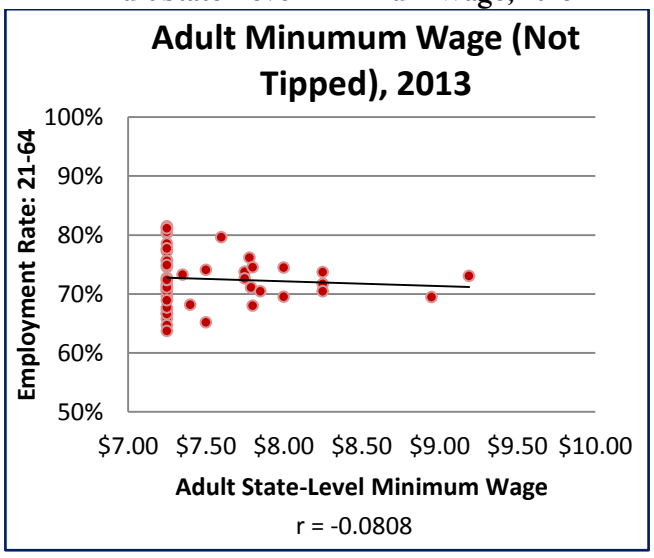
The minimum wage is one of the most contentious labor market institutions. Although 7-in-10 adults nationwide are in favor of raising the minimum wage to $10.10 per hour (PollingReport, 2015), politicians are divided on the issue. The federal minimum wage has remained at $7.25 per hour since 2009. While some argue that the minimum wage is a distortion in the market and increases unemployment, others say the increased wages lead to more spending among low-income families, which stimulates job growth and *offsets* any negative employment effect. Figure 8 tends to support the latter conclusion. With a correlation of just -8.1 percent, a state's adult minimum wage in 2013 had no discernible relationship with its working-age employment rate. There are many explanations for why the minimum wage appears to have little to no effect on total employment (Schmitt, 2013), such as increased demand (Aaronson et al., 2012), reductions in employee turnover and more diligent hiring practices (Dube et al., 2013), and more young workers deciding to stay in school which increases human capital in the long run (Sutch, 2010).

The number of weeks of unemployment insurance provided to workers may also impact employment. Opponents of generous unemployment insurance argue that the longer unemployment benefits last, the less effort unemployed persons will put into looking for a new job. Therefore, states that have higher number of weeks covered by unemployment insurance would tend to have lower employment rates. However, Figure 9 shows a correlation of 14.4 percent, indicating a weak positive relationship between unemployment insurance weeks and the working-age employment rate. It is worth noting, though, that unemployment benefits now run out after 26 weeks in 40 out of 50 U.S. states, a limitation to evaluating the data.

Some commentators and politicians also view labor unions as distorting the labor market and reducing employment opportunities. In fact, there is no relationship between a state's union membership rate and its working-age employment rate, with a correlation of just 0.8 percent (Figure 10). Labor unions form when workers feel that employers have mistreated them, not provided them with enough workplace protections, or unfairly compensated them. Unions collectively bargain on behalf of the workers they represent and agree to contracts with employers that work for both labor and management. By raising worker incomes and increasing personal satisfaction, unions stimulate consumer demand and improve worker morale in ways that often offset disemployment effects.

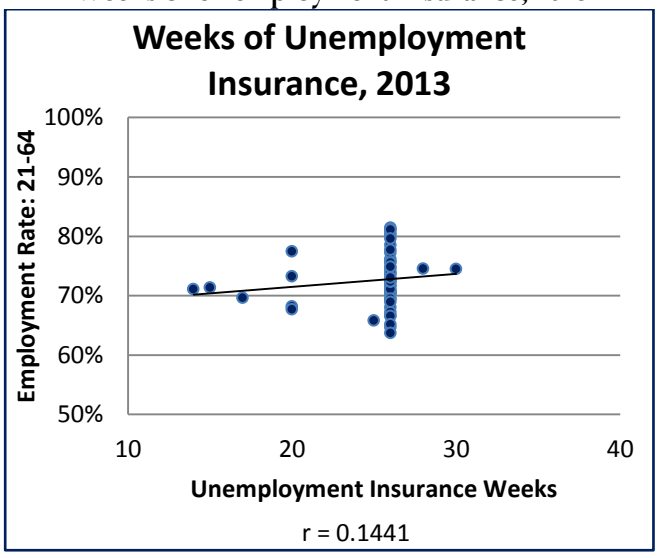
Conversely, "right-to-work" laws impose a government regulation on labor unions, prohibiting them from entering into a specific type of private contract with their employers that includes a "fair-share" clause. "Right-to-work" proponents argue that the regulation helps to encourage business growth and increase job growth by limiting union organizing. However, "right-to-work" laws also have no relationship to the employment rate (Figure 11). While the working-age employment rate is actually marginally higher in collective-bargaining states (71.8 percent) than in "right-to-work" states (71.2 percent), the correlation of 1.4 percent indicates that "right-to-work" does not support employment. This finding echoes much of the economic literature (Manzo & Bruno, 2014; Collins, 2012; Hogler, 2011; Stevans, 2009).

FIGURE 8: Working-Age Employment Rate and Adult State-Level Minimum Wage, 2013



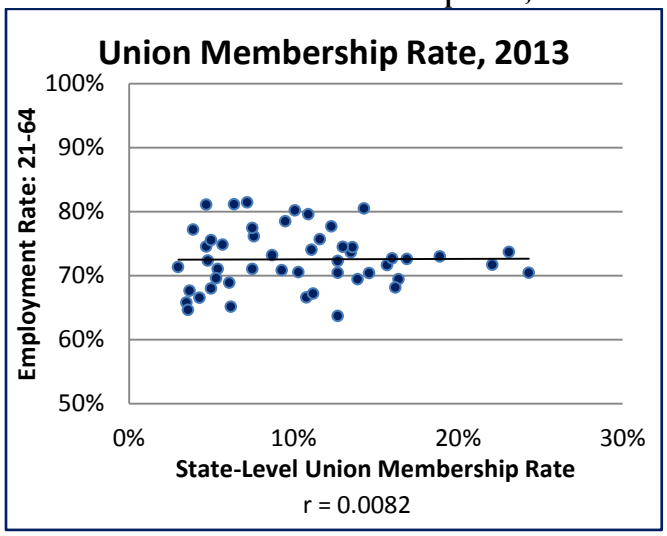
Sources: CEPR, 2014; USDOL, 2015.

FIGURE 9: Working-Age Employment Rate and Weeks of Unemployment Insurance, 2013



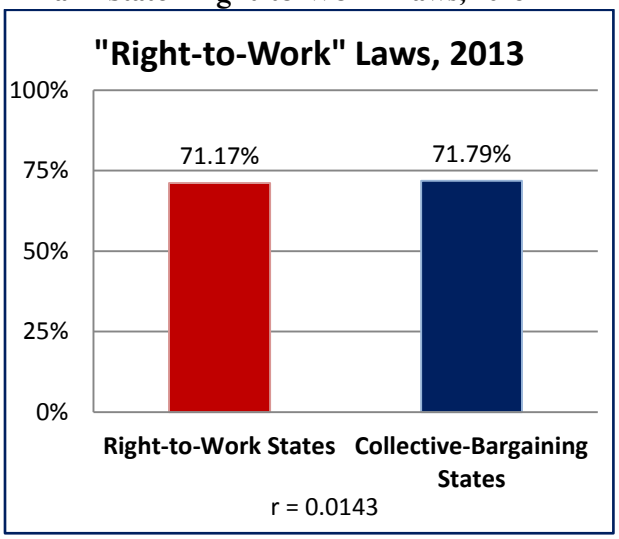
Sources: CEPR, 2014; CBPP, 2013.

FIGURE 10: Working-Age Employment Rate and State-Level Union Membership Rate, 2013



Sources: CEPR, 2014.

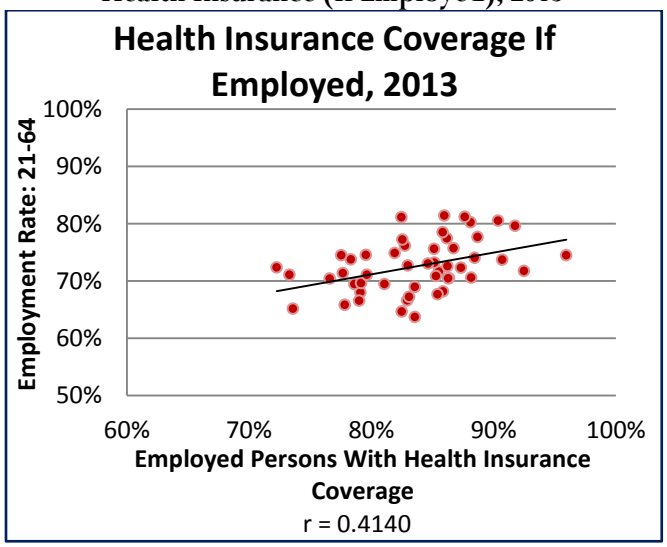
FIGURE 11: Working-Age Employment Rate and State "Right-to-Work" Laws, 2013



Sources: CEPR, 2014.

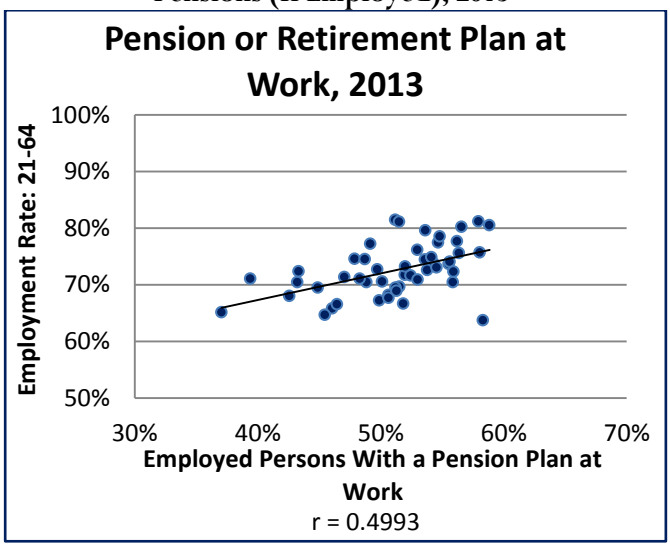
Workers may be encouraged to enter the job market if the jobs offer competitive fringe benefits packages. Health insurance coverage and retirement coverage both increase the benefits of working relative to the costs of going to work. Indeed, in 2013, both the share of employees with health insurance coverage and the share of employees with a pension or retirement plan at work are associated with higher employment rates. Given that workers are more likely to have health and retirement insurance than non-workers simply by having a job, Figures 12 and 13 only report coverage shares *among the employed*. This is done to ensure that the coverage rate (the X-axis) is not explained by the employment rate (the Y-axis). Rather, a non-worker may be encouraged to find a job in a state if he or she is more likely to receive health insurance coverage and retirement coverage once he or she is employed, relative to other states. There is a moderate positive relationship between employee health insurance coverage and the employment rate, with a correlation of 41.4 percent (Figure 12). Similarly, with a correlation of 49.9 percent, there is a moderate positive relationship between the share of employees having a pension or retirement plan at their work and the employment rate (Figure 13). These graphs indicate that higher coverage rates in health and retirement plans may support employment.

FIGURE 12: Working-Age Employment Rate and Health Insurance (If Employed), 2013



Sources: CEPR, 2014; Census, 2014a.

FIGURE 13: Working-Age Employment Rate and Pensions (If Employed), 2013

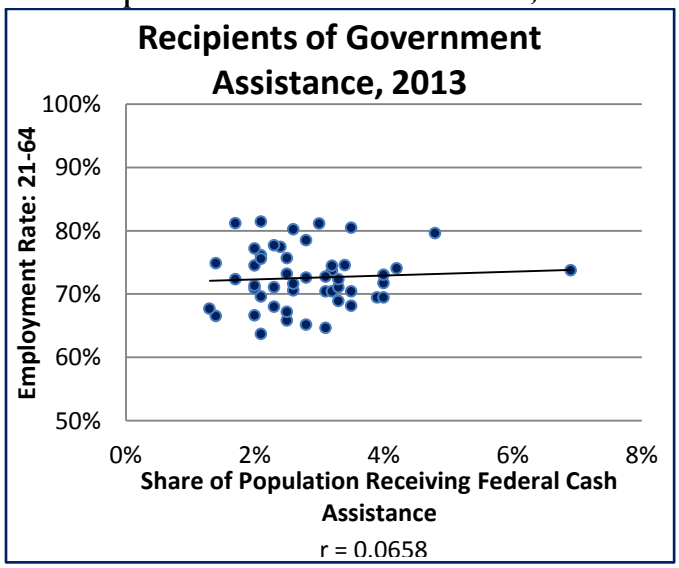


Sources: CEPR, 2014; Census, 2014a.

Poverty, Inequality, and Crime

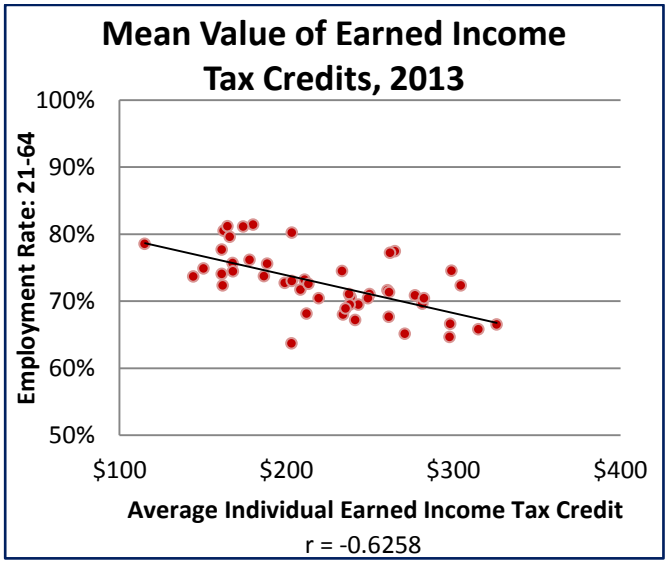
Some commentators and politicians argue that government assistance programs reduce employment because recipients are less likely to seek and accept gainful employment. On the other hand, programs such as the Earned Income Tax Credit (EITC) are designed to increase tax refunds to (or otherwise reduce income taxes paid by) low-wage workers, which theoretically encourages individuals to find a job. The correlations show that the working-age employment rate has no relationship with the share of the population receiving federal cash assistance in Figure 14 (6.6 percent correlation), a strong negative relationship with the average EITC value received by an individual (-62.6 percent correlation) in Figure 15 and a strong negative relationship with the share of the population receiving food stamps (-67.1 percent correlation) in Figure 16. However, these correlations are more likely related to the percent of the population below the poverty line. That is, food stamp and EITC assistance do not lower the employment rate; rather, they are policy responses to a higher share of the population below the poverty line *due* to a lower employment rate. This conclusion is supported in the Section 3 analysis, in which neither food stamps nor EITC value has a statistical impact on the working age employment rate.

FIGURE 14: Working-Age Employment Rate and Recipients of Federal Cash Assistance, 2013



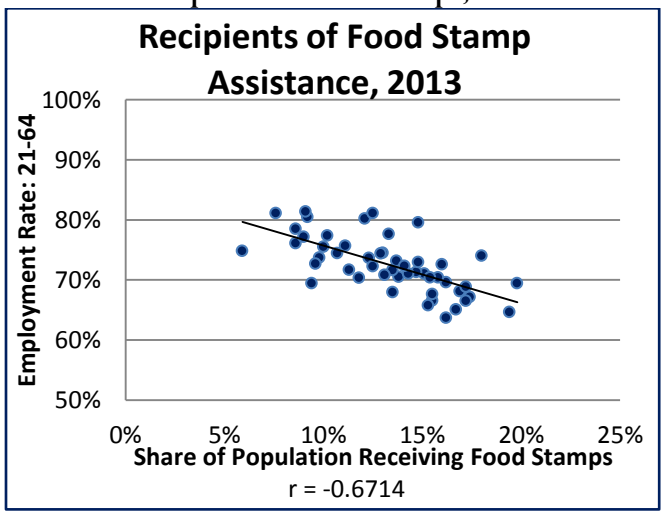
Sources: CEPR, 2014; Census, 2014a.

FIGURE 15: Working-Age Employment Rate and Mean Value of EITC Assistance, 2013



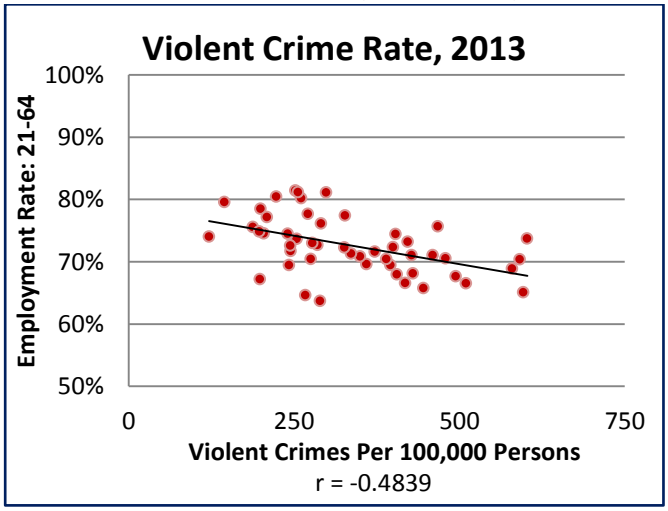
Sources: CEPR, 2014; Census, 2014a.

FIGURE 16: Working-Age Employment Rate and Recipients of Food Stamps, 2013



Sources: CEPR, 2014; Census, 2014a.

FIGURE 17: Working-Age Employment Rate and Violent Crimes Per 100,000 Persons, 2013



Sources: CEPR, 2014; FBI, 2013.

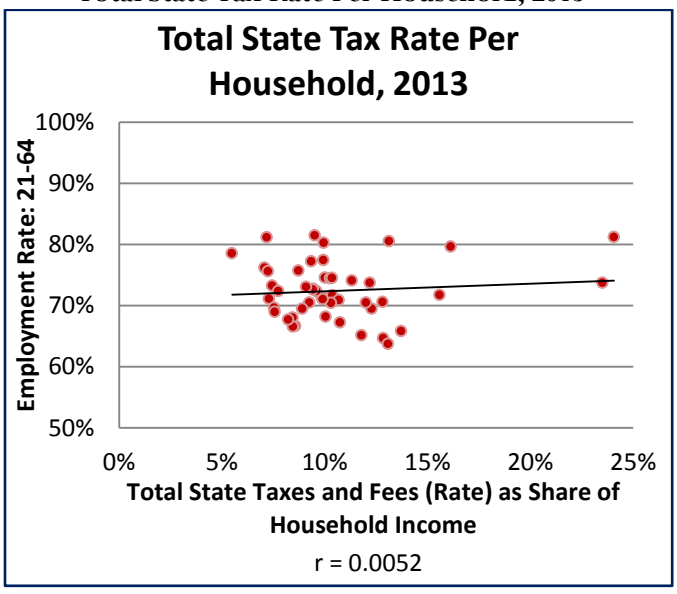
An additional factor that influences employment, which is subject to policy prescription, is a jurisdiction's crime rate. Levitt (2004) provides compelling evidence that increases in the number of police and increases in the prison population are two of the four factors explaining the significant reduction in the crime rate in the 1990s. But does reducing the crime rate have a positive impact on the employment rate? Yes, according to Figure 17. There is a strong negative correlation of -48.4 percent between the number of violent crimes per 100,000 persons in a state and the working-age employment rate (Figure 17). As the violent crime rate increases, the employment rate declines. This relationship, however, may depend on many factors. For instance, if the number of inmates is relatively larger in states with low violent crime rates, they are not counted in the total state population. By removing the inmates from the denominator (individuals who are not currently employed and, even if they were released, are less likely to have a job), the working-age employment rate would be artificially inflated. But reducing criminal behavior is is just one side of the equation. Policies that provide previously incarcerated individuals with job training and placement counseling as well as those that remove the stigma of an arrest record may help increase employment rates among this population.

Taxes and Government Spending

Finally, this report considers the relationship of various taxes and government expenditures on the working-age employment rate. The information utilized is from the 2013 *Annual Survey of State Government Finances* by the U.S. Census Bureau. The data contain details on state government revenue by source, expenditures by function, indebtedness by term, and assets by purpose. This is a voluntary survey, but all 50 state governments participated in 2013 (Census, 2015b).

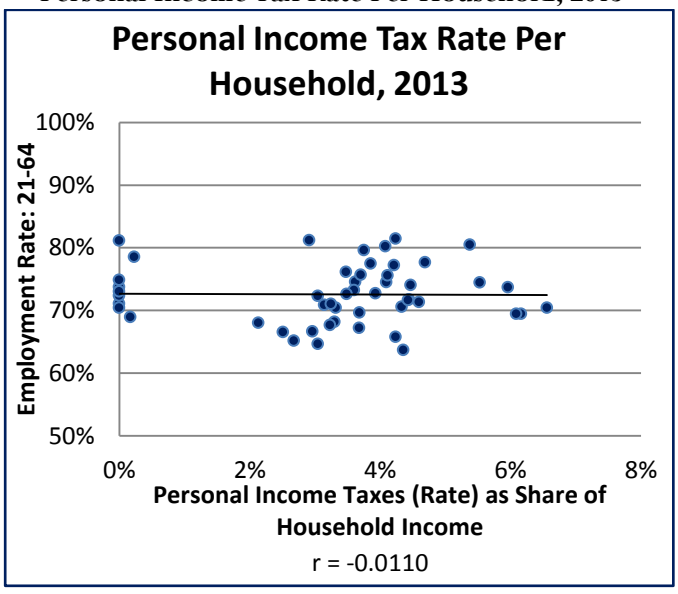
Figure 18 first presents data on the total state tax rate per household. To determine the tax rate per household we first established the state's total collection of tax and fee revenues (for all purposes) and then divided by the number of households reported in each state by the 2013 *American Community Survey*. Then, the average household tax burden is divided by the mean household income reported in the 2013 *American Community Survey* to generate a state-level estimate of total tax rate per household. We found that there is no relationship at all between a state's total tax rate per household and its working-age employment rate (Figure 18). Note that the two outliers in the visual depiction are North Dakota (24.1 percent) and Alaska (23.5 percent), which received disproportionately large corporate net income taxes from energy production companies.The correlation of -0.5 percent is the weakest association of all 35 relationships presented in this paper. As the share of household income paid in total state taxes increases, the employment rate does not go up or down.

FIGURE 18: Working-Age Employment Rate and Total State Tax Rate Per Household, 2013



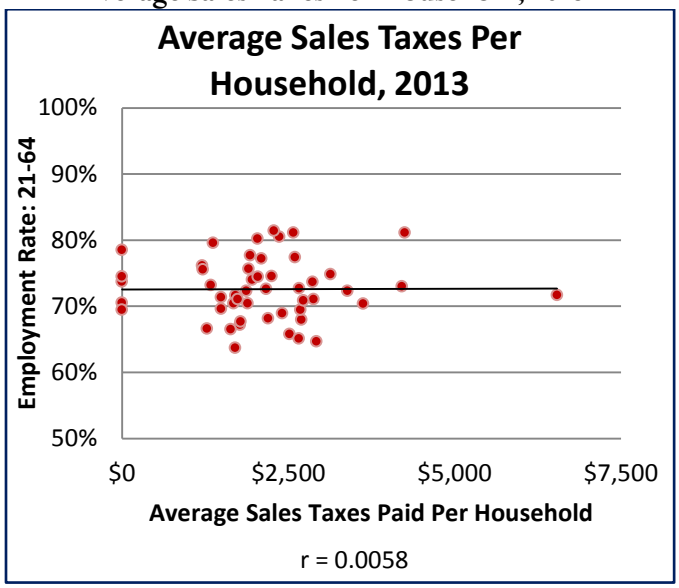
Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

FIGURE 19: Working-Age Employment Rate and Personal Income Tax Rate Per Household, 2013



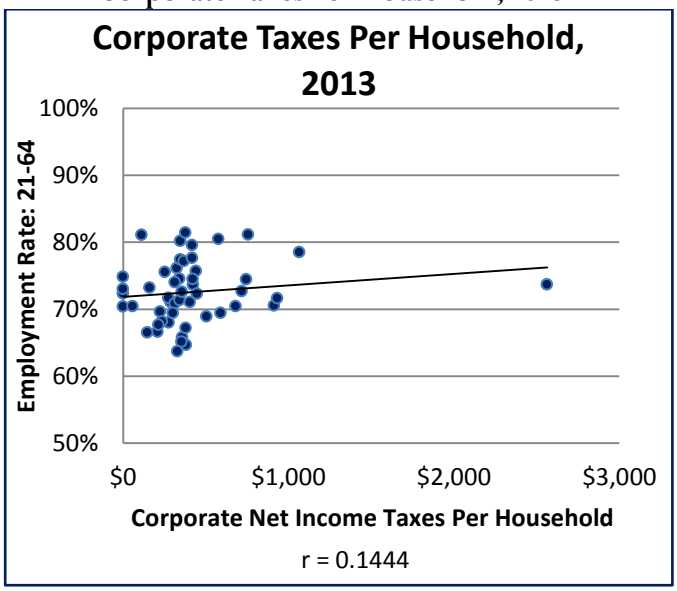
Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

FIGURE 20: Working-Age Employment Rate and Average Sales Taxes Per Household, 2013



Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

FIGURE 21: Working-Age Employment Rate and Corporate Taxes Per Household, 2013



Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

Figures 19 through 21 characterize relationships between specific types of taxes and the employment rate– the personal income tax, the sales tax, and the corporate income tax. In all Figures, there are at least four states that do not have the evaluated tax. Our findings show that there is no relationship between any of the three tax variables and the working-age employment rate. The correlations are -1.1 percent with the personal income tax as a share of average household income (Figure 19), 0.6 percent with the average sales tax paid per household (Figure 20), and 14.4 percent with the corporate income tax rate per household (Figure 21). All states collect tax revenues in some form, whether the primary method is through income, sales, or corporate taxes.

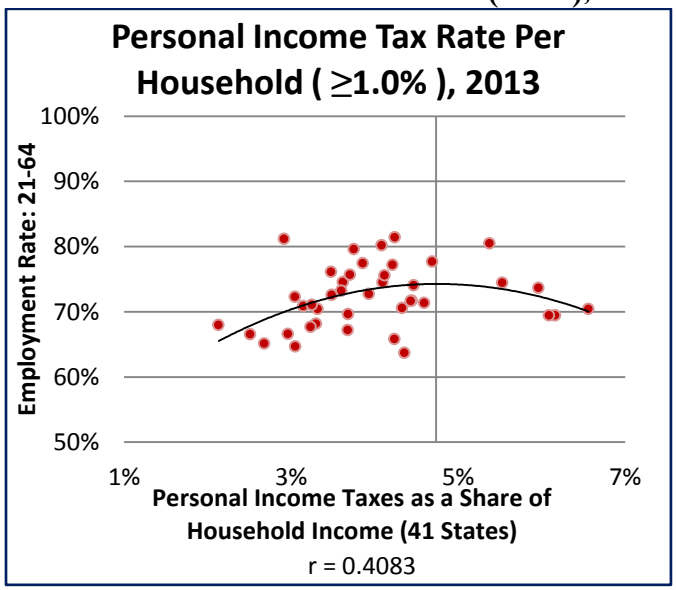
The findings from these three graphs indicate that the manner of collecting revenues does not seem to impact the employment rate. The type of tax or fee and its rate tend to have no real relationship to boosting employment. A possible explanation is that taxes may become too burdensome at some high level, but that no individual U.S. state approaches such a level. However, if states with an effective personal income tax rate of less than 1.0 percent are omitted, a "Laffer Curve" with a moderate 40.8 percent relationship does emerge (Figure 22). The data omits nine states, so definitive conclusions cannot be drawn. Still, it is worth noting that the curve does suggest that the "optimal" effective personal income tax rate is 4.74 percent.

Among all analyzed tax and government spending relationships, Figure 23 shows the strongest association. There is a moderate positive relationship between a state's budget surplus and its working-age employment rate, exhibited by a 33.3 percent correlation. The budget surplus rate is calculated by dividing all remaining revenue after expenditures by total collected revenue. In effect, it is a "rainy day" fund in case market conditions deteriorate and tax revenues decline. Higher budget surpluses tend to instill confidence among investors, workers, and voters that a state government has its financials in order.

In 2013, Illinois' total state revenues amounted to $84.5 billion. This includes $38.7 billion in General Fund revenues (45.8 percent); $17.0 billion from the federal government (20.1 percent); $18.9 billion in "insurance trust revenue" such as workers' compensation, unemployment compensation, and pension contributions (22.4 percent); and the rest from miscellaneous revenue such as lotteries, fines, tolls, and airport fees (11.7 percent). Total expenditures on all functions of government, however, summed up to $75.3 billion, leading to an *overall* budget surplus of 10.9 percent.[5] This included a $1.0 billion surplus of total receipts over total disbursements in the General Fund (Nuding, 2015). However, the state's budget now faces a deficit due the phase-out of the temporary income and corporate tax hikes and declines in federal government revenues.

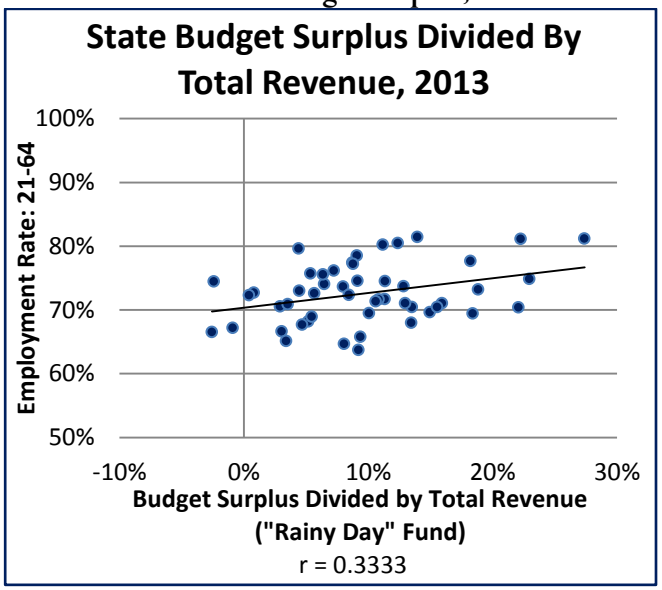
[5] In 2013, the three states with deficits of total state expenditures on all functions exceeding total state revenues from all sources were Louisiana (-2.6 percent), Massachusetts (-2.4 percent), and Kentucky (-0.9 percent).

FIGURE 22: Working-Age Employment Rate and Household Personal Income Tax Rate (≥1.0%), 2013



Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

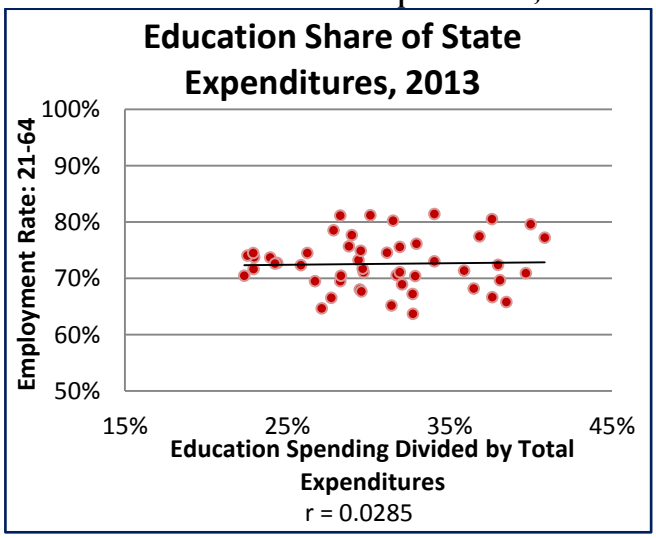
FIGURE 23: Working-Age Employment Rate and Total State Budget Surplus, 2013



Sources: CEPR, 2014; Census, 2015b; Census, 2015a.

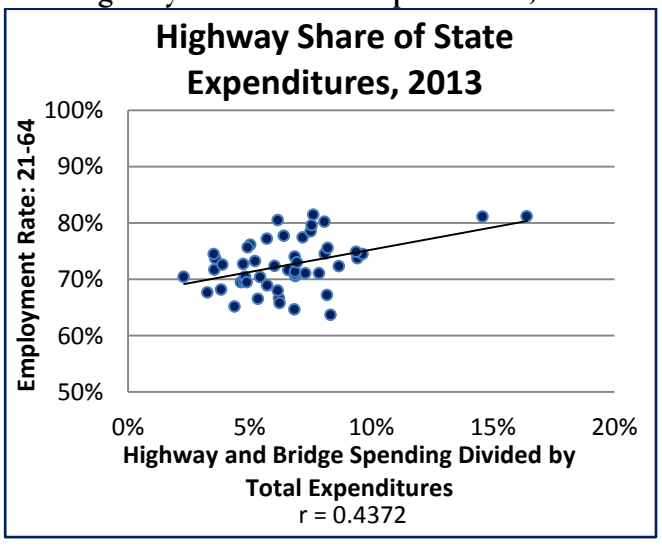
As previously discussed, the levels of educational attainment and transportation infrastructure are the factors demonstrating the strongest relationship with the working-age employment rate. Related to those employment supports are state expenditures directly tied to education and transportation. Figures 24 and 25 display the employment associations with education spending divided by total expenditures and highway spending divided by total expenditures. Highway spending includes spending on all roads, bridges, and capital assets owned by the state, which are typically administered by the state's Department of Transportation. While the overall educational levels of the state's eligible workforce is strongly related to employment, there is no relationship between the education share of state expenditures and the working-age employment rate, with a correlation of 2.9 percent (Figure 24). But, with a correlation of 43.7 percent, there is a moderate strong relationship between the highway share of state expenditures and the working-age employment rate (Figure 25). Though not shown, the correlation between a state's highway share of total expenditures and its public road miles per 100,000 persons is 81.0 percent, indicating that the two are almost perfectly related.

FIGURE 24: Working-Age Employment Rate and Education Share of State Expenditures, 2013



Sources: CEPR, 2014; Census, 2015b.

FIGURE 25: Working-Age Employment Rate and Highway Share of State Expenditures, 2013

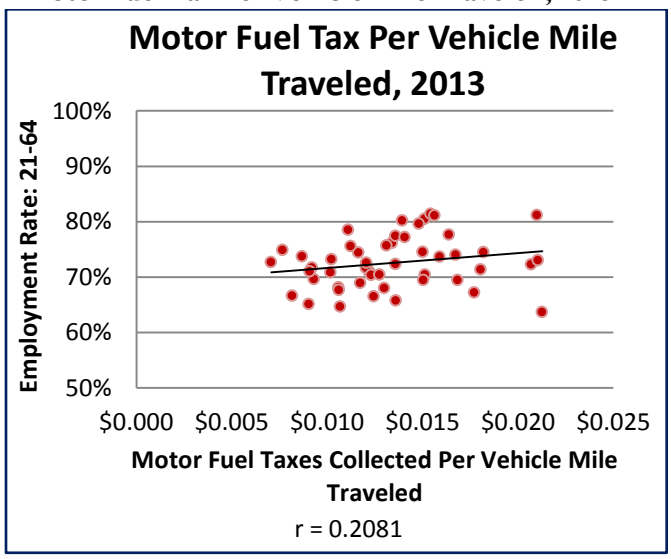


Sources: CEPR, 2014; Census, 2015b.

States primarily fund road and bridge infrastructure through motor fuel taxes paid at the pump, though alternatives to replace the gas tax have been proposed, such as a mileage-based user fee (Manzo & Poulos, 2015). Figure 26 divides total motor fuel taxes collected in a state by the total vehicle miles traveled in the state, as estimated by the 2013 *State Transportation Statistics* by the Bureau of Transportation Statistics of the U.S. Department of Transportation (USDOT, 2015). Motor fuel tax per vehicle mile traveled is then pitted against the working-age employment rate. The data reveal a weak positive relationship, with a 20.8 percent correlation. While a higher gas tax is associated with a higher employment rate, this is because gas tax revenues fund highway expenditures to construct public roads and reduce congestion. Still, raising the motor fuel tax or implementing a new user fee is policy that can be used to support employment through investments in horizontal infrastructure.

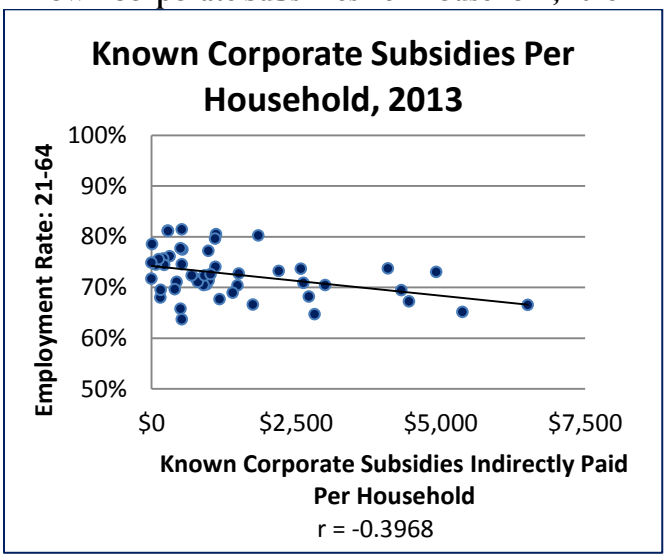
Lastly, research by Veronique de Rugy (2014) of George Mason University finds that "corporate welfare is a significant problem at the state level." Not all corporate subsidies are known because the data is "inconsistently scattered among various government reports and websites," if it is reported at all. However, a Subsidy Tracker compiled by Good Jobs First allows researchers to draw general conclusions from all identified subsidies. There is a moderate negative relationship, -39.7 percent, between the dollar value of known corporate subsidies indirectly paid by each household and the working-age employment rate in a state (Figure 27). While some politicians and commentators claim that business subsidies, tax breaks, and enterprise or tax increment financing zones encourage employment growth, Figure 27 actually points to the opposite conclusion: Corporate welfare reduces the employment rate, hurts workers, and transfers taxpayer dollars to corporations.

FIGURE 26: Working-Age Employment Rate and Motor Fuel Tax Per Vehicle Mile Traveled, 2013



Sources: CEPR, 2014; Census, 2015b; USDOT, 2015.

FIGURE 27: Working-Age Employment Rate and Known Corporate Subsidies Per Household, 2013



Sources: CEPR, 2014; De Rugy, 2014.

Section 3: The Impact of Each Variable

Regression Analyses

To parse out the actual and unique impact of a particular variable on the working-age employment rate, ordinary least squares (OLS) regression models are used. This technique describes "how much" a factor is responsible for increasing or decreasing the employment rate. For example, how much is a higher minimum wage responsible, if at all, for a higher or lower employment rate in a state? Due to the problem of "multicollinearity" in which two explanatory factors are closely related– such as the highway share of state expenditures and the number of public road miles per 100,000 persons– the model is limited to 17 of the most important variables.

The analysis finds five factors that are statistically significant (Figure 28).

First, a one percentage-point increase in the share of the population with a bachelor's degree is statistically associated with a 0.80 percentage-point increase in the employment rate. Although a 0.8 percentage-point increase may seem small, in Illinois this equates to approximately 60,000 new working-age residents that would have a job.

Second, a one percentage-point increase in the share of three and four year old children enrolled in a state early childhood education program also again has a statistically significant impact, this time increasing the working-age employment rate by 0.07 percentage point. In Illinois, just 23 percent of three and four year olds are enrolled in a state ECE program. The analysis finds that doubling the number of these children in ECE programs would increase the working-age employment rate by 1.54 percentage points, or by over 115,000 workers.

State spending on highways and bridges, the average travel time to work, and the state budget surplus are the three additional factors that statistically influence the working-age employment rate (Figure 28). A one percentage-point increase in the highway share of state expenditures is statistically associated with a 0.39 percentage-point increase in the working-age employment rate. Similarly, a one minute rise in the average commute time lowers the employment rate on average by 0.005 percentage point. A 20 minute drop in mean travel time to work would increase the employment rate by 0.09 percentage point. Furthermore, a one percentage-point increase in the state's total budget surplus over total revenue is associated with a 0.20 percentage-point increase in the working-age employment rate.

There are also two variables that have suggestive impacts on the working-age employment rate, with significance at the 10-percent confidence level. A one dollar increase in the state minimum wage has a suggestive but insignificantly negative impact on the working-age employment rate (-0.02 percentage point), which aligns with economic research showing no or a very small negative impact of the minimum wage on employment (Wolfson & Belman, 2013; Dube et al., 2011; Doucouliagos & Stanley, 2009). A one percentage-point increase in worker health insurance coverage has a suggestive but insignificantly positive impact on the working-age employment rate (0.21 percentage point). The number of state child care workers per 1,000 children under four years old, the share of workers using public transportation to commute to work, the union membership rate, "right-to-work" legislation, the number of unemployment insurance weeks offered by a state, the share of workers with pension or retirement coverage, the average personal income tax rate, known corporate subsidies, the average value of the Earned Income Tax Credit, and the share of the population receiving food stamps all have no statistical impact on the working-age employment rate.

The final column in Figure 28 provides conclusions on the impacts of each variable. All five variables that have statistical significance are deemed to have "significant impacts" on the working-age employment rate. If a public policy or economic variable has significance at only the 10 percent level *or* if it has a moderate or strong relationship in the correlational analysis, then it is considered to have a "suggestive impact" on the employment rate. A factor has "no impact" at all if it has no or a weak correlation between the working-age employment rate *and* is insignificant.

Seven public policies have suggestive impacts on the working-age employment rate (Figure 28). More health insurance coverage for workers, more pension coverage for workers, and more state child care workers may all positively affect the working-age employment rate, but there is not enough evidence to draw a confident conclusion. A higher minimum wage, a higher personal income tax rate, a higher amount of corporate subsidies paid by taxpayers, and a higher violent crime rate may all negatively affect the working-age employment rate, though again there is not enough evidence to draw a confident conclusion.

All of the suggestive impacts are likely true "at some point." As an example, increasing the minimum wage from $8.25 per hour in Illinois to $10.00 per hour is unlikely to have a significant impact on the employment rate. The higher wages at the lower end of the income distribution would actually stimulate consumption and offset the negative employment effect (Manzo & Bruno, 2014). But the minimum wage is just that: A minimum. Increasing the wage floor to an extreme for which no one advocates, such as $100.00 per hour, would have negative impacts. The marginal cost exceeds the marginal benefit *at some point*. Another example is that a personal income tax rate of 100 percent, again at the extreme, would discourage every person from working– so the tax becomes too burdensome *at some point*. For states, this threshold is possibly after a personal income tax rate of 4.74 percent is reached for the average household (as demonstrated in Figure 22).

FIGURE 28: Statistical Analyses of Independent Variables on the Working-Age Employment Rate

Variable	Correlation	Strength	Regression Model		Conclusion
Variables of Interest					
Bachelor's Degree or Higher	0.5211	Strong	0.7967	***	Significant Impact
3 and 4 Year Olds Enrolled in state ECE	-0.0693	None	0.0670	**	Significant Impact
State Child Care Workers Per 1,000 Children Under 4	0.3227	Moderate	-0.0001		Suggestive Impact
Highway Share of State Expenditures	0.4372	Moderate	0.3916	**	Significant Impact
Mean Travel Time to Work	-0.3253	Moderate	-0.0047	**	Significant Impact
Public Transit Commuters	0.0181	None	-0.0010		No Impact
Minimum Wage	-0.0808	None	-0.0207	*	Suggestive Impact
Union Membership Rate	0.0082	None	0.0422		No Impact
Right-to-Work Law	0.0143	None	0.0071		No Impact
Unemployment Insurance Weeks	0.1441	Weak	0.0010		No Impact
Income Tax Rate Per Household	-0.0110	None	-0.3656		Suggestive Impact
Known Corporate Subsidies Per Household	-0.3968	Moderate	0.0000		Suggestive Impact
Budget Surplus	0.3333	Moderate	0.2025	**	Significant Impact
Health Insurance Coverage If Employed	0.4140	Moderate	0.2299	*	Suggestive Impact
Pension/Retirement Coverage At Work	0.4993	Moderate	0.0644		Suggestive Impact
Mean Value of EITC	-0.6258	Strong	0.0001		*Collinear*
Food Stamp Recipient	-0.6714	Strong	-0.0018		*Collinear*
Public Road Miles Per 100,000 Persons	0.4438	Moderate			*Collinear*
Motor Fuel Taxes Per Vehicle Mile Traveled	0.2081	Weak			No Impact
Violent Crime Rate Per 100,000 Persons	-0.4839	Moderate			Suggestive Impact
Cash Public Assistance Recipient	0.0658	None			No Impact
Total State Tax Rate Per Household	0.0052	None			No Impact
Average Sales Taxes Per Household	0.0058	None			No Impact
Corporate Income Taxes Per Household	0.1444	Weak			No Impact
R^2	N/A	N/A	0.8805		N/A

There are also nine policies and factors in Figure 28 that have no impact on the working-age employment rate. Among these are "right-to-work" policies and the state-level unionization rate. A higher union density does not lower the working-age employment rate. Policies that reduce the power of labor unions, such as "right-to-work" laws, also have no discernible impact on employment. While a higher number of unemployment weeks may cause a small increase in the unemployment rate, it has no impact on the *employment rate*. This is because recipients are considered unemployed– that is, in the labor force and looking for work. In states with less generous unemployment benefits, many out-of-work individuals become discouraged and drop out of the labor force altogether, which artificially lowers the unemployment rate while having no impact on the working-age employment rate. Small or modest increases in state sales taxes, corporate income taxes, and motor fuel taxes all also have no statistical impact on the employment rate. Different states choose varying taxes and tax rates to levy, but all collect some form of taxation. The other variables that have no impact on the employment rate are the share of workers commuting via public transportation and the percentage of residents receiving cash assistance from the federal government.

Five Policies and Practices that Make a Difference

Improving the share of the population with a bachelor's degree increases a state's human capital, productivity, and technological and innovative capacities. These positive effects improve employment outcomes for all individuals, including low-wage workers. Possible public policies to improve educational attainment outcomes include significantly increasing tuition grants to lower the cost of college, increasing the number and availability of low-cost online courses (with responsive professors), reducing class sizes in K-12 educational institutions to improve student achievement to put children on the path to

college, creating degree programs that recognize life experience credits, and reducing the burden on transferring education credits into 4-year degree programs.

Increasing the number of three and four year olds in state early childhood education programs offers considerable benefits. First, the evidence is mounting that ECE programs significantly improve individual education and labor market outcomes later in life (Calman & Tarr-Whelan, 2005). ECE enrollment also supports employment because parents, particularly mothers, re-enter the workforce instead of staying at home with their kids. A possible public policy to increase the share of three and four year olds in state ECE programs is to offer significant subsidies to more parents to offset the cost of preschool. An even better approach would be to implement universal early childhood education funded by a small income tax increase on high-income families. Additionally, raising the number of people eligible for childcare financial assistance would support the employment rate.

Highway expenditures and reduced commute times to work also make a difference. Infrastructure investments support economic activity. Improving and expanding roads, bridges, highways, subways, railroads, and waterways all provide direct jobs to construction workers over the short term, increasing consumer demand in an economy. Over the long run, high-quality infrastructure investment benefits businesses by allowing them to efficiently bring their product or service to market, benefits workers by connecting them to jobs, and benefits families by reducing time costs of congestion. The simplest public policy to improve state spending on public infrastructure and reduce the average travel time to work is to raise the state motor fuel tax, which is not pegged to inflation and loses real value every year. But, because corporate average fuel economy (CAFE) standards are rising and automobiles are becoming more fuel efficient, motor fuel tax revenues are declining across the country. A technologically modern, sustainable revenue option based on vehicle miles traveled (VMT) is an alternative that has been proposed in many states. The Illinois Road Improvement and Driver Enhancement (I-RIDE) program is one such proposal that increases revenues for roads as well as public transit systems in Illinois (Manzo & Poulos, 2015). State governments should also "lockbox" their road construction funds and prohibit using motor fuel taxes and vehicle license fees on any government function other than improving transportation infrastructure. Wisconsin voters, for example, passed a constitutional amendment in November 2014 to lockbox the state's transportation fund, by a vote of 80 percent to 20 percent (Ballotpedia, 2014).

States with higher budget surpluses also tend to have higher working-age employment rates. Budget surpluses improve investor confidence in a state and ensure that funds are available during recessions and other downturns in the business cycle. Public policy changes to turn budget deficits into budget surpluses, especially in Illinois, should increase tax revenue while making necessary cuts to programs that do not support employment. Many states can increase personal income tax rates while cutting tax subsidies to corporations. Reducing tax exemptions and closing loopholes can also increase revenues. In addition, increased legalization of gambling and recreational marijuana could increase state tax revenues while reducing spending on police and correctional facilities. Any number of options could be pursued to improve the budget and support positive employment outcomes.

Section 4: A $3.5 Billion Policy Proposal

To support employment, Illinois and other state governments should use taxpayer dollars to implement policies and programs related to the four variables that have significant impacts. This section presents the effect of a $3.5 billion increase in Illinois' available revenue spent on public policies to support employment. The amount is predicated on increasing the state's flat personal income tax rate from 3.75 percent to 4.75 percent. This reflects the *potentially* optimal rate of 4.74 percent reported in Figure 22 but is slightly above the balanced-budget recommendation of 4.25 percent by The Institute for Illinois' Fiscal Sustainability at the Civic Federation (Civic Federation, 2015). The retroactive income tax increase would generate approximately $3.515 billion in additional revenue.[6]

[6] Because the policy proposal includes road construction and investments in mass transit, this part of the $3.5 billion could also be imagined as a combination of a smaller retroactive income tax increase and an increase in the motor fuel tax. For simplicity, however, this policy change only assumes an income tax increase. Spending General Fund revenues on public infrastructure can be justified by the past sweeps from the Road Fund into the General Fund.

Projected impacts are presented in two simulations of the Illinois economy. The first is a straightforward application of the regression model, which is a "static" analysis. The second utilizes IMPLAN, the leading economic impact analysis software, to produce a "dynamic" simulation and measure the impact through a multiplier effect, or "ripple effect," on the entire economy.

It is recommended that the $3.5 billion in additional tax revenue be invested in the following four areas:

1. **$375,000,000 is spent on public higher education**: $15,000 annual grants to make the cost of attending public universities more affordable for 25,000 students. Complete College America (2011) finds that 37 percent of Illinois students who enroll in a public postsecondary education institution matriculate in a four-year university, and that 65 percent of those students graduate in six years. Conservatively assuming a 60 percent graduation rate, these grants would "produce" 15,000 new graduates with bachelor's degrees.

2. **$375,000,000 is spent on the construction of new highway, road, and bridge infrastructure**: In 2004, the average construction cost per lane-mile in Illinois was $653,459 (Poupore, 2004). From March 2003 to December 2014, the National Highway Construction Cost Index (NHCCI) increased by 11.6 percent (FHWA, 2015). Conservatively assuming a 15 percent increase in costs, the new expenditures would allow for the construction of 500 lane-miles of highway.

3. **$375,000,000 is spent on mass transit systems to reduce commute times to work, particularly in the Chicago metropolitan area**: Although the "public transit commute" variable has no statistical impact on the working-age employment rate, a shorter travel time supports work. Congestion in the Chicago area costs the state $7.3 billion in annual economic output (MPC, 2008). The new expenditures could, over four years, allow the state to construct the Metra's Union Pacific North and West improvements and the Chicago Transit Authority's Orange Line extension, which cost a total of $1.47 billion according to the Chicago Metropolitan Agency for Planning (CMAP, 2014). These three improvements are projected to make 24,478 jobs newly accessible to workers in 75 minutes or less.

4. **$375,000,000 is spent on state early childhood education programs**: A total of 75,305 three and four year olds in Illinois were enrolled in a state early childhood education program, or 23 percent of all three and four year olds. Annual state spending was $241.2 million, or $3,189 per child enrolled (NIEER, 2013). The new expenditures would more than double the state's ECE investment. Conservatively assuming a state commitment of $5,000 per new child enrolled, the policy change could increase the number of three and four year olds enrolled in a state ECE program by 75,000 children.

While not a direct labor market policy, $2,000,000,000 should be used to reduce the deficit and implement the state budget recommendations proposed by the Civic Federation: This policy proposal to support employment is based on a retroactive increase in the personal income tax from 3.75 percent to 4.75 percent, 0.50 percentage-point higher than the rate proposed by the nonpartisan Civic Federation. The Civic Federation estimates that their proposed increase would increase income tax revenues by $1.77 million in the 2016 fiscal year (Civic Federation, 2015). The policy proposal to support employment in this paper allows the state to make critical education and infrastructure investments while also following the Civic Federation's sound recommendations to balance the budget and pay down the bills. Note that the Civic Federation's proposal includes other revenue-generating and cost-cutting measures that close the rest of the current budget deficit. This $3.5 billion policy proposal assumes that the other Civic Federation recommendations are adopted and carried out as well.

The first economic forecast of this $3.5 billion policy proposal is the regression analysis (Figure 29). Using the inputs, the share of the population with a bachelor's degree or higher would increase by 0.18 percentage point, the share of total state spending devoted to highways would increase by 0.36 percentage point, and the average time spent commuting each day would be reduced by 0.37 minute per day per worker. The share of three and four year old children enrolled in a state ECE program would nearly double, increasing by 22.91 percentage points, while the deficit reduction measures would create an additional 2.62 percentage point surplus over total revenue. These public policy changes would boost the working-age employment rate by 2.40 percentage points, mainly due to parents re-entering the workforce and businesses re-gaining confidence in the State of Illinois. Compared to other states, the change in the working-age employment rate would improve

Illinois' ranking from 28th (71.62 percent) to 19th (74.02 percent). The total impact would amount to nearly 180,000 new jobs supported.

FIGURE 29: Predicted Impact of $3.5 Billion Policy Proposal on Illinois' Employment Rate, OLS Regression

Policy Change	A: Percentage-Point (or Minute) Change	B: Estimated Effect (Regression)	A*B: Predicted Change in Employment Rate
$375,000,000 Higher Education	0.1763	0.7967	+0.1405
$375,000,000 Highways	0.3593	0.3916	+0.1407
$375,000,000 Transit (Travel Minutes)	-0.3700	-0.0047	+0.0017
$375,000,000 Early Childhood Education	22.9068	0.0693	+1.5874
$2,000,000,000 Deficit Reduction	2.6204	0.2025	+0.5306
Total Change in Employment Rate (21-64)	+2.4010 percentage-point increase		
Jobs Supported for Workers (21-64)	**+179,426 jobs created**		

The second economic forecast is based on spending multipliers in an input-output model. The analysis is unrelated to the analysis in Figure 28 but is used as an independent "check" of the predicted impacts in Figure 29. IMPLAN is a data-driven software measuring the inter-industry relationships within an economy. Specifically, the input-output model measures the market transactions between businesses and consumers. The framework allows for the examination of how a *spending or income change* in one area affects the entire economy. Thus, this analysis quantifies impacts based on the respective $375 million increases in government spending, the $2 billion change in the budget deficit, and the $3.5 billion decrease in household incomes from a 1 percentage point retroactive increase in the personal income tax (Figure 30).

The economic impact analysis finds that, despite the drop in after-tax household income, the public policy spending changes cause a net gain in employment, worker income, and economic output (Figure 30). This policy proposal would be predicted to support over 48,000 new jobs in total, increasing the working-age employment rate by 0.65 percentage point. The result would be a $3.1 billion increase in total labor compensation, which almost entirely offsets losses from the personal income tax rate hike and demonstrates how a higher tax might not reduce consumer demand. Ultimately, the market simulation finds that the state's economic output would expand by $2.2 billion on net, even after accounting for the $3.5 billion "transfer" from households to the government. Although the economic impact analysis (Figure 30) yields results that show lower benefits to Illinois than the regression model (Figure 29), they both lead to the same compelling conclusion: Public sector expenditures on higher education, early childhood education, public infrastructure, congestion reduction, and balanced budgets all support strong employment outcomes and improve the economy.

FIGURE 30: Predicted Impact of $3.5 Billion Policy Proposal on Illinois' Employment Rate, IMPLAN Model

IMPLAN Simulation of Policy Change		Employment	Labor Income	Economic Value Added
Direct Effect		47,413 jobs	$2.94 billion	$2.00 billion
Indirect and Induced Effects		864 jobs	$0.12 billion	$0.21 billion
Total Effect for Workers		**+48,277 jobs**	**+$3.06 billion**	**+$2.21 billion**
Implied Change in the Employment Rate (21-64)		+0.6460 percentage-point increase		
Industry Spending Changes		Household Income Changes		
$375,000,000	Colleges, Universities, Professional Schools	-$129,046,507	Households Earning $0-35K	
$375,000,000	Construction of New Nonresidential Structures	-$250,483,173	Households Earning $35-50K	
$375,000,000	State & Local Government Passenger Transit	-$515,206,869	Household Earning $50-75K	
$375,000,000	Payroll (State & Local Gov't, Education)	-$508,060,887	Households Earning $75-100K	
$2,000,000,000	Payroll (State & Local Gov't, Non-Education)	-$809,582,564	Households Earning $100-150K	
		-$1,301,341,803	Households Earning $150K+	

Section 5: Implications and Conclusions

A higher employment rate generally improves well-being, reduces poverty, and increases tax revenues. Policies to support employment therefore tend to have large positive impacts for states. Among 35 public policies and economic phenomena

investigated in this analysis, five make a difference in the working-age employment rate. The policies that support employment include increasing the share of the population with a bachelor's degree, increasing the share of three and four year old children enrolled in a state early childhood education program, increasing state spending on highways and bridges, reducing the average travel time to work, and improving the state budget surplus. This finding echoes many of the conclusions drawn in studies of advanced national economies (Kleven, 2014; Fialová, 2011; Blomquist et al., 2009).

The public policies that "work" for workers are all *investments* using taxpayer dollars. When the government invests in its road and other transportation infrastructure, businesses and workers become more connected and have more time to engage in productive activities. Physical capital investment supports both workers and employers. When the government invests in educating residents of all ages, businesses and workers become more innovative, more productive, and more efficient. Human capital investment supports both workers and employers. When the government balances the budget and carries over surplus revenues, the savings– which can be invested– are an investment in the future. Businesses and workers know that their government is responsible and will be able to make critical training and infrastructure investments in the future, especially during economic downturns when they are severely needed. A budget surplus supports both workers and employers.

Other policies and phenomena have no discernible impact on the employment rate, but that does not mean that they are not needed. While the employment rate is an important indicator to determine the health of an economy, it is not the only measure. Alternative economic or social justifications exist for reducing the violent crime rate or increasing the adult minimum wage or changing the corporate tax rate, but this study does not address those other reasons. The analysis can conclude, however, that certain changes will have no effect. Curtailing union membership, reducing the minimum wage, and providing corporate subsidies are all policy adjustments that would not increase employment. On the other hand, slightly higher personal income taxes are not expected to reduce employment. The whole picture– the *costs* of tax revenues and the *benefits* of how they are used– must be considered.

A $3.5 billion policy proposal in Illinois to retroactively increase the personal income tax rate by one percentage point and use the additional revenues for the five policies that support employment would generate substantial benefits. Even after accounting for the costs of a higher income tax, the policy changes would boost net economic output by at least $2 billion. The proposal is also predicted to support between 48,000 and 180,000 new jobs. The policy proposal makes critical investments in early childhood and higher education, in infrastructure, and in financial solvency. As a result, the proposal supports parents who want to enter the workforce, supports skills development for workers, supports efficient transportation systems, supports congestion reduction, and supports a viable public sector. Ultimately, the $3.5 billion policy proposal supports employment in Illinois.

It is critical for lawmakers and voters to examine both costs and benefits because public policy choices have consequences. Some discourage a potential worker from entering the labor market and reduce opportunities for families to achieve the American Dream. Other public policies facilitate middle-class job creation, a skilled workforce, and a strong economy. The policies that support employment all help to accomplish the latter. The State of Illinois should take steps to increase investment in public education, increase investment in public infrastructure, and a balance the state budget.

Appendix

Sources

Census Bureau (Census). (2015). 2013 *American Community Survey* 1-Year Estimates. Available at http://factfinder.census.gov/.

Center for Economic and Policy Research (CEPR). (2013). 2013 *Current Population Survey* Outgoing Rotation Groups: CPS ORG Uniform Extracts, Version 2.0.1. Washington, DC. Available at http://ceprdata.org/cps-uniform-data-extracts/cps-outgoing-rotation-group/cps-org-data/.

Center on Budget and Policy Priorities (CBPP). (2013). "Unemployment Rates and Weeks of Unemployment Insurance (UI) Available." Updated tables available at http://www.cbpp.org/unemployment-rates-and-weeks-of-unemployment-insurance-ui-available-0.

Child Care Aware (CCA) (2014). *Child Care in America: 2013 State Fact Sheets*. Available at http://cca.worksmartsuite.com/UserContentStart.aspx?category=28.

De Rugy, Veronique. (2014). "Ranking Known State Subsidies to Private Businesses." Mercatus Center, George Mason University. Available at http://mercatus.org/publication/ranking-known-state-subsidies-private-businesses.

Federal Bureau of Investigation (FBI). (2013). *Crime in the United States, 2013*. Available at www.fbi.gov.

IMPLAN (2013). IMPLAN Group, LLC, IMPLAN System (data and software).16740 Birkdale Commons Parkway, Suite 206, Huntersville, NC 28078. Available at www.implan.com.

National Institute for Early Education Research (NIEER). (2013). *The State of Preschool 2013*. Graduate School of Education at Rutgers University. Available at http://nieer.org/sites/nieer/files/yearbook2013.pdf.

Public Religion Research Institute (PRRI). (2015). 2013 *American Values Atlas*. Available at https://ava.publicreligion.org/.

U.S. Department of Labor (USDOL). (2015). "Changes in Basic Minimum Wages in Non-Farm Employment Under State Law: Selected Years 1968 to 2013." Wage and Hour Division. Available at http://www.dol.gov/whd/state/stateMinWageHis.htm.

U.S. Department of Transportation (USDOT). (2015). 2013 *State Transportation Statistics* by the Bureau of Transportation Statistics. Available at http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/index.html.

Bibliography

Aaronson, Daniel, Sumit Agarwal, and Eric French. (2012). "The Spending and Debt Response to Minimum Wage Hikes." *American Economic Review* 102(7): 3111-3139. Available as 2009 working paper from http://faculty.chicagobooth.edu/erik.hurst/teaching/minwagecons160.pdf.

Andersen, Torben, Nicole Bosch, Anja Deelen, and Rob Euwals. (2011). "The Danish Flexicurity Model in the Great Recession." Vox: CEPR's Policy Portal. Available at http://www.voxeu.org/article/flexicurity-danish-labour-market-model-great-recession.

Ballotpedia. "Wisconsin Transportation Fund Amendment, Question 1 (2014). Ballotpedia.org. Available at http://ballotpedia.org/Wisconsin_Transportation_Fund_Amendment,_Question_1_(2014).

Barro, Robert. (1997). *Determinants of Economic Growth: A Cross-Country Study*. National Bureau of Economic Research. Available at http://www.nber.org/papers/w5698.pdf.

Berger, Noah and Peter Fischer. (2013). *A Well-Educated Workforce Is Key to State Prosperity*. Economic Analysis and Research Network. Available at http://www.epi.org/publication/states-education-productivity-growth-foundations/.

Blomquist, Sören, Vidar Christiansen, and Luca Micheletto. (2009). *Public Provision of Private Goods and Nondistortionary Marginal Tax Rates: Some Further Results*.Uppsala University; University of Olso; University of Milan. Available at http://www.diva-portal.org/smash/get/diva2:236593/FULLTEXT01.pdf .

Bureau of Labor Statistics (BLS). (2015). "Alternative Measures of Labor Underutilization." U.S. Department of Labor. Available at http://www.bls.gov/news.release/empsit.t15.htm.

Calman, Leslie and Linda Tarr-Whelan. (2005). *Early Childhood Education for All: A Wise Investment*. Legal Momentum; MIT Workplace Center. Available at http://web.mit.edu/workplacecenter/docs/Full%20Report.pdf.

Cohen, Jacob. (1992). "A Power Primer." *Psychological Bulletin* 112(1): 155-159.Available at http://psycnet.apa.org/?&fa=main.doiLanding&doi=10.1037/0033-2909.112.1.155.

Chicago Metropolitan Agency for Planning (CMAP). (2014). "Go To 2040 Update Appendix: Major Capital Projects." Chicago Metropolitan Agency for Planning. Available at http://www.cmap.illinois.gov/documents/10180/332742/Update+Major+Capital+Projects+FINAL.pdf/51a1943f-0c2d-4243-8d94-9232f4598566.

Civic Federation. (2015). *State of Illinois FY2016 Budget Roadmap: State of Illinois Budget Overview, Projections and Recommendations for the Governor and the Illinois General Assembly. The* Institute for Illinois' Fiscal Sustainability at the Civic Federation. Available at https://www.civicfed.org/sites/default/files/REPORT--FY2016IllinoisRoadmap.pdf.

Coe, David T. and Snower, Dennis J. (1997). "The Case for Fundamental Labor Market Reform." *Staff Papers (International Monetary Fund*), Vol. 44, No. 1 (Mar., 1997), pp. 1-35.

Collins, Benjamin. (2012). *Right to Work Laws: Legislative Background and Empirical Research*. Congressional Research Service. U.S. Congress. Available at http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1984&context=key_workplace.

Complete College America. (2011). "Illinois: 2011." Complete College America. Note that the numbers are misleading at first: 25 percent of students who enroll in a public college or university graduate from a full-time 4-year public college, but only 37 percent of this population enrolls in a full-time 4-year institution. Thus, the graduation rate is 25/37 = 67.6 percent. Available at http://www.completecollege.org/docs/Illinois.pdf.

Gennetian, Lisa A., Danielle A. Crosby, Aletha C. Huston and Edward D. Lowe (2004). "Can Child Care Assistance in Welfare and Employment Programs Support the Employment of Low-Income Families?" *Journal of Policy Analysis and Management,* Vol. 23, No. 4 (Autumn, 2004), pp. 723-743.

Doucouliagos, Hristos and T.D. Stanley (2009). *Publication Selection Bias in Minimum-Wage Research? A Meta Regression Analysis*. Deakin University Australia; Hendrix College. Available at https://www.deakin.edu.au/buslaw/aef/workingpapers/papers/2008_14eco.pdf.

Dube, Arindrajit, T. William Lester, and Michael Reich. (2011). *Do Frictions Matter in the Labor Market? Accessions, Separations and Minimum Wage Effects*. University of Massachusetts- Amherst; University of North Carolina- Chapel Hill; University of California- Berkeley. Available at http://ftp.iza.org/dp5811.pdf.

Dube, Arindrajit, T. William Lester, and Michael Reich. (2014). *Minimum Wage Shocks, Employment Flows and Labor Market Frictions*. University of Massachusetts- Amherst; University of North Carolina- Chapel Hill; University of California-Berkeley. Available at http://www.irle.berkeley.edu/workingpapers/149-13.pdf.

Dynan, Karen, Jonathan Skinner, and Stephen Zeldes. (2004). "Do the Rich Save More?" *Journal of Political Economy* 112(2): 397-444. Available at https://www.dartmouth.edu/~jskinner/documents/DynanKEDotheRich.pdf.

Estevão, Marcello. (2007). "Policies to Raise Employment," *IMF Staff Papers*, 54 (1): 113-138.

Federal Highway Administration (FHWA). (2015). "Construction Cost Trends for Highways." NHCCI Index. U.S. Department of Transportation. Available at http://www.fhwa.dot.gov/policyinformation/nhcci/pt1.pdf.

Fialová, Kamila. (2011). *Labor Market Institutions and their Effect on Labor Market Performance in OECD and European Countries*. Charles University in Prague. Available at http://siteresources.worldbank.org/ECAEXT/Resources/258598-1284061150155/7383639-1323888814015/031412_02.pdf.

Gallup-Healthways. (2014). *State of American Well-Being: 2013 State, Community and Congressional District Analysis*. Gallup-Healthways Well-Being Index; 11. Available at http://cdn2.hubspot.net/hub/162029/file-610480715-pdf/WBI2013/Gallup-Healthways_State_of_American_Well-Being_Full_Report_2013.pdf.

Hogler, Raymond. (2011). "How Right to Work Is Destroying the American Labor Movement: From the Ku Klux Klan to the Tea Party." *Employee Responsibilities and Rights Journal* 23: 295-304. Available at http://link.springer.com/article/10.1007%2Fs10672-011-9183-1.

Hughes, Johnathan and Louis Cain. (2003). *American Economic History* (Sixth Edition). New York: Addison Wesley; 498. Newest editions available at http://www.pearsonhighered.com/hughes/.

Jenkins, J. Craig, Kevin T. Leicht and Heather Wendt. (2006). "Class Forces, Political Institutions, and State Intervention: Subnational Economic Development Policy in the United States, 1971–1990," *American Journal of Sociology*, 111 (4), January 2006: 1122-1180.

Kalleberg, Arne L., Barbara F. Reskin and Ken Hudson. (2000). "Bad Jobs in America: Standard and Nonstandard Employment Relations and Job Quality in the United States," *Sociological Review*, 65 (2), April: 256-278.

Kleven, Henrik Jacobsen. (2014). "How Can Scandinavians Tax So Much?" *Journal of Economic Perspectives* 28(4): 77-98. Available at http://www.henrikkleven.com/uploads/3/7/3/1/37310663/kleven_jep2014.pdf.

Krueger, Alan. (2012). "The Rise and Consequences of Inequality in the United States." Council of Economic Advisers testimony. Available at https://www.whitehouse.gov/sites/default/files/krueger_cap_speech_final_remarks.pdf.

Lehmann, M. Christian (2014). *Labor Market Equilibrium Effects of Cash Transfers: Evidence from a Structural Model and a Randomized Experiment*. University of Brasilia. Available at http://www.anpec.org.br/encontro/2014/submissao/files_I/i13-cd41ccb0047d931eb836f774a89719ce.pdf.

Levitt, Steven. (2004). "Understanding Why Crime Fell in the 1990s: Four Factors that Explain the Decline and Six that Do Not." *Journal of Economic Perspectives* 18(1): 163-190. Available at http://pricetheory.uchicago.edu/levitt/Papers/LevittUnderstandingWhyCrime2004.pdf.

Manzo, Frank. (2015). *Illinois Income Report: How Are You Doing This Tax Season?* Illinois Economic Policy Institute. Available at http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2013/10/ILEPI-Economic-Commentary-Illinois-Income-Report.pdf.

Manzo, Frank and Marc Poulos. (2015). *The I-RIDE Proposal: A Smart, Reliable Policy to Fund Transportation Infrastructure* (Version 2.0). Illinois Economic Policy Institute; Indiana, Illinois, Iowa Foundation for Fair Contracting. Available at http://illinoisepi.org/countrysidenonprofit/wp-content/themes/12/docs/i-ride.pdf.

Manzo IV, Frank and Robert Bruno. (2014). *Free-Rider States: How Low-Wage Employment in "Right-to-Work" States Is Subsidized by the Economic Benefits of Collective Bargaining*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign. Available at https://ler.illinois.edu/wp-content/uploads/2015/01/Free-Rider-CB-States.pdf.

Manzo, Frank and Robert Bruno. (2014). *Minimum Wage, Maximum Benefits: How a $10 Wage Floor Impacts All Workers and the Economy*. Illinois Economic Policy Institute; University of Illinois at Urbana-Champaign. Available at http://illinoisepi.org/countrysidenonprofit/wp-content/uploads/2013/10/MinimumWageMaximumBenefit.pdf.

Metropolitan Planning Council (MPC). (2008). *Moving at the Speed of Congestion*. Metropolitan Planning Council. Available at https://www.metroplanning.org/uploads/cms/documents/mpcreport_movingatthespeedofscongestion.pdf.

Moore, Quinn, Robert G. Wood, and Anu Rangarajan. (2012). "The Dynamics of Women Disconnected from Employment and Welfare", Social Service Review, Vol. 86, No. 1 (March), pp. 93-118.

Neumark, David. (2002). "Youth Labor Markets in the United States: Shopping around vs. Staying Put," *The Review of Economics and Statistics*, 84 (3), August: 462-482.

Nuding, Tim. (2015). *Illinois State Budget: Fiscal Year 2016*. Governor's Office of Management and Budget. Governor Bruce Rauner. Available at http://www2.illinois.gov/gov/budget/Documents/Budget%20Book/Budget%20Book%20FY16/FY2016IllinoisOperatingBudgetBook.pdf.

Organisation for Economic Co-opertion and Development (OECD). (2006). "General Policies to Improve Employment Opportunities for All." *OECD Employment Outlook: Boosting Jobs and Incomes* (Chapter 3). Available at http://www.oecd.org/employment/emp/38569396.pdf.

Polling Report. (2015). "Work." PollingReport.com. Conclusions from 5 CBS News/*New York Times* Polls dating from 1/17-21/2014 to 5/28-31/2015 which respectively found 72 percent, 65 percent, 70 percent, 71 percent, and 71 percent of adults nationwide in favor of raising the minimum wage to $10.10. Available at http://www.pollingreport.com/work.htm.

Poupore, Raymond. (2004). *The Impact of Wages on Highway Construction Costs: Updated Analysis*. The Construction Labor Research Council. Available at http://www.heavy-highway.org/library/document-library/20090212172702.WageStudybooklet.pdf.

Saez, Emmanuel, Joel Slemrod, and Seth Giertz. (2010). *The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review*. University of California, Berkley; University of Michigan; University of Nebraska. Available at http://eml.berkeley.edu//~saez/saez-slemrod-giertzJEL10round2.pdf.

Schmitt, John. (2013). *Why Does the Minimum Wage Have No Discernible Effect on Employment?* Center for Economic and Policy Research. Available at http://www.cepr.net/documents/publications/min-wage-2013-02.pdf.

Stevans, Lonnie. (2009). "The Effect of Endogenous Right-to-Work Laws on Business and Economic Conditions in the United States: A Multivariate Approach." *Review of Law and Economics* 5(1): 595-614. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1027987.

Stevens, Philip and Martin Weale. (2003). *Education and Economic Growth*. National Institute of Economic and Social Research. Available at http://cee.lse.ac.uk/conference_papers/28_11_2003/martin_weale.pdf.

Stevenson, Betsey and Justin Wolfers. (2008). *Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox*. University of Pennsylvania; Brookings Institution. Available at http://www.brookings.edu/~/media/Projects/BPEA/Spring-2008/2008a_bpea_stevenson.PDF.

Stiglitz, Joseph. (2013). *The Price of Inequality: How Today's Divided Society Endangers Our Future* (1st Edition). New York: W.W. Norton & Company; 83-117. Available at http://books.wwnorton.com/books/the-price-of-inequality/.

Stier, Haya, Noah Lewin Epstein, and Michael Braun. (2001). "Welfare Regimes, Family-Supportive Policies, and Women's Employment along the Life Course," *American Journal of Sociology*, Vol. 106, No. 6 (May), pp. 1731-1760.

Sutch, Richard. (2010). *The Unexpected Long-Run Impact of the Minimum Wage: An Educational Cascade*. National Bureau of Economic Research. University of California- Riverside. Available at http://www.nber.org/papers/w16355.

Trzcinski, Eileen and William T. Alpert. (1994). "Pregnancy and Parental Leave Benefits in the United States and Canada: Judicial Decisions and Legislation," *The Journal of Human Resources*, 29 (2), Special Issue: Women's Work, Wages, and Well-Being (Spring): 535-554.

Turkmen, Mutlu. (2013). "Investigation of the Relationship between Academic and Sport Motivation Orientations." *Middle-East Journal of Scientific Research* 16(7): 1008-1014; Table 6. Available at http://www.idosi.org/mejsr/mejsr16(7)13/20.pdf.

Weir, Margaret, (1992). Princeton, NJ, Princeton University Press. *Politics and Jobs: The Boundaries of Employment Policy in the United States*.

Weir, Margaret. (1987). "Full Employment as a Political Issue in the United States Source," *Social Research*, 54 (2), Summer: 377-402.

Western, Bruce and Katherine Beckett. (1999). "How Unregulated Is the U.S. Labor Market? The Penal System as a Labor Market Institution," *American Journal of Sociology*, Vol. 104, No. 4 (January), pp. 1030-60.

Wolfson, Paul and Dale Belman. (2013). "Does Employment Respond to the Minimum Wage? A Meta-Analysis of Recent Studies from the New Minimum Wage Research." *What Does the Minimum Wage Do?* (Chapter 2). W.E. Upjohn Institute for Employment Research. Available at http://research.upjohn.org/up_press/227/.

Cover Photo Credits