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Presents

ECONOMIC INDICATORS

An update for the 7 Rivers Region



March 29, 2018

Economic Indicators and Trends

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Economic Indicators

Economic Indicators: An Update for the 7 Rivers Region reports on a long-term study of regional economic indicators. The research is ongoing and spans a period of time to enable us to understand and report trends. This project is expected to continuously build on a base of economic information and provide decision makers with valuable tools for strategic planning. The information will also provide a basis for comparison with other regions and a measure of our progress.

State Bank Financial sponsors this research project in collaboration with the University of Wisconsin-La Crosse College of Business Administration and the *La Crosse Tribune*. These programs will continuously build on a base of information and provide decision makers like you with valuable tools for strategic planning.

Specific goals of this project are:

- Support business owners in their business decisions by gathering key local economic indicators and trend information.
- Develop specific economic indicators for this region that are not readily available to decision makers.
- Develop tools to assess our progress in economic growth. Prepare baseline measures that will allow comparison with other regions and measure future progress of the region.
- Track the region's participation in the "new economy" and development in the high tech arena.
- Bring professionals together with business owners for discussion about the local economy and related critical issues.
- Create a business recruitment and retention tool by publishing the information.

Core economic indicators cover the following areas:

- Employment
- Income
- Cost of Living
- Consumer Attitude and Behavior
- Real Estate and Housing
- Interest Rates
- Equity Performance

Economic Indicators and Trends

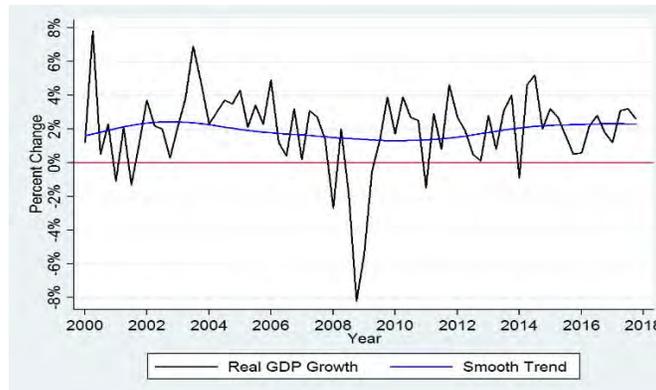
John M. Nunley, Associate Professor, UW-La Crosse Department of Economics

March 2018:

The State of the U.S. Economy

At the national level, the economy is performing quite well according to various measures. Growth in real gross domestic product (GDP) has been hovering around the 2 percent range in recent years (Figure 1), and professional forecasters have revised their projections of short-term growth upward slightly to a range of 2.4 to 3.0 percent ([Survey of Professional Forecasters, 2018](#)).¹ However, economic growth projections for 2020 and 2021 are more pessimistic, with expected growth falling back to the 2 percent range.

Figure 1
Growth in Real Gross Domestic Product (2000-2017)

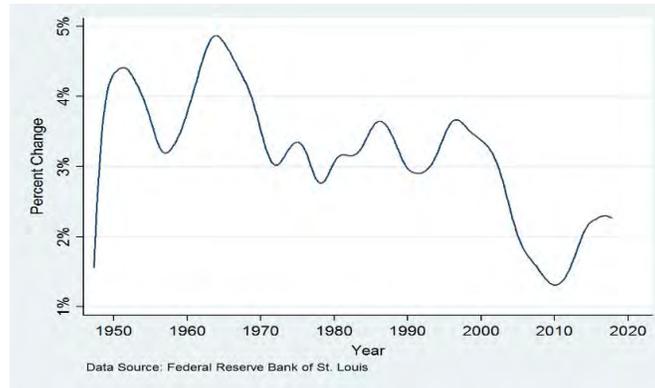


Source: St. Louis Federal Reserve

When taking a longer run perspective, it is clear that real GDP growth has fallen to a much lower level than that experienced during, for example, the 1960s. An important driver of growth during the 1960s and 1970s was the sharp increase in female labor force participation and relatively larger productivity gains. The leveling off of the female labor force participation, declining male labor force participation, stagnant productivity growth, and an aging population are, in large part, responsible for the sluggish growth experienced over the last decade.

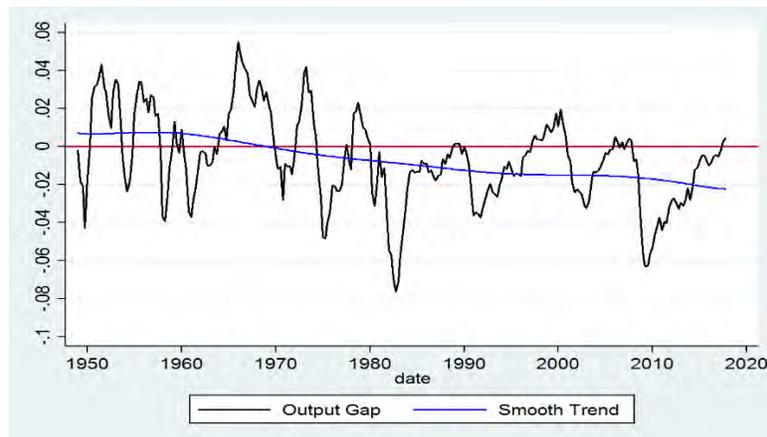
¹ For the linked content throughout this report, refer to the pdf version. It can be found at the State Bank Financial website: <https://www.statebankfinancial.bank/home/economic-indicator-reports.html>.

Figure 2
Smoothed Real GDP Growth (1947-2017)



Another metric often used to gauge the health of the overall economy is the output gap (Figure 3), which is the percentage difference between real GDP and its potential. Negative values indicate an economy is underperforming and positive values indicate an economy that is performing above its potential.

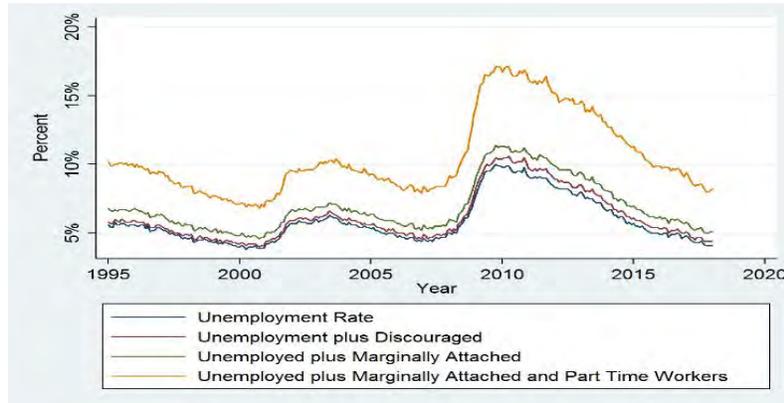
Figure 3
Output Gap – Percentage Difference in Real GDP and Its Potential



During the Great Recession the output gap widened significantly, but has steadily narrowed in the recession’s aftermath. The most recent data suggest that the economy is performing slightly above its potential. The blue line in Figure 3 fits a “smooth” trend line through the data points, which indicates a steady downward trend in the output gap over time, an indication that negative output gaps (underperformance) have become more common than positive output gaps (overperformance). Nevertheless, the economy is currently operating near its potential, which is a positive sign.

Various (un)employment rates are also useful in making a judgement regarding how the economy is performing. Figure 4 shows the evolution of four different unemployment rates from the mid-1990s through early-2018. Because the civilian unemployment rate only captures the share of people in the labor force who are unable to find work, relying solely on this measure misses discouraged, marginally-attached, and part-time workers. In Figure 4, the blue line represents the civilian unemployment rate; the red line adds discouraged workers; the green line incorporates marginally attached workers; and the yellow line incorporates both marginally-attached and part-time workers. Prior to the Great Recession, small fluctuations are present in each measure over time. During the Great Recession, each measure increased sharply and around 2010 each measure began to fall. Currently, each measure of unemployment is back, for the most part, to their pre-financial-crisis levels.

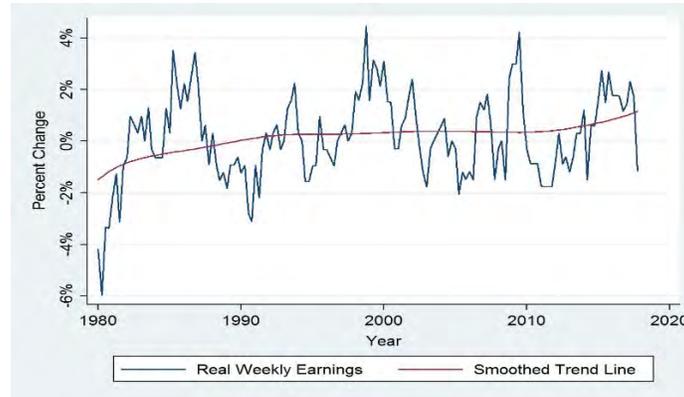
Figure 4
Various Unemployment Rates (1995-2018)



Source: St. Louis Federal Reserve

Lastly, an examination of real wages over time provides insights into how living standards have changed. Figure 5 plots the average real wage growth between 1980 and 2017.

Figure 5
Real Median Weekly Earnings Growth in the U.S.



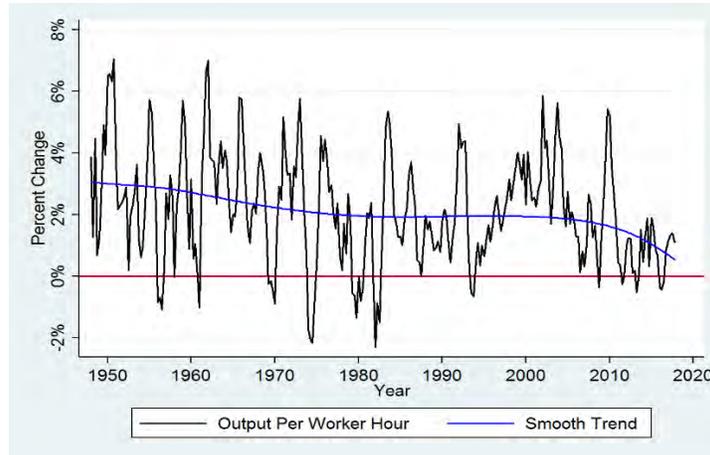
Source: St. Louis Federal Reserve

Figure 5 shows the growth in real weekly wages over time. The smoothed trend line (in red) shows an upward trend from 2010 onwards. In 2017, real earnings growth was reasonably strong, with the exception of the fourth quarter: real weekly earnings grew by 1.4 percent in the first quarter; 2.3 percent in the second quarter; 1.7 percent in the third quarter; and then fell 1.1 percent in the fourth quarter. An examination of Figure 5 reveals substantial volatility. As a result, it is possible, maybe even likely, that the sharp drop in real earnings growth in the fourth quarter is an ephemeral blip.

Productivity and Labor Force Growth

Figures 1-5 are suggestive of a reasonably healthy U.S. economy. However, there are reasons for concern. Two key drivers of economic growth, at least in the short term, are productivity growth and labor force growth. In Figures 6 and 7, the percentage change in real output per worker hour and the growth rate of labor force are plotted over time. What is clear from these metrics is the following: productivity growth has been steadily trending downward since the early-1950s and the U.S. labor force is growing but at a slower rate than it has in the past. Lackluster productivity growth and slower labor force growth explain, at least some, of the sluggish growth observed over the last decade or so.

Figure 6
Real Output Per Worker Hour

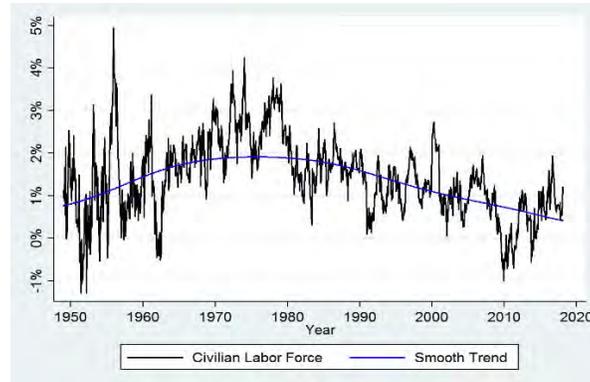


Source: St. Louis Federal Reserve

The slowdown in productivity growth, especially in recent years, has been somewhat of a puzzle. One prominent macroeconomist, Robert Gordon, has [argued](#) that a likely cause is the absence of significant innovations (e.g., consider the importance of the electric power grid) or simply that new innovations are not as important as they once were. However, a [report](#) by the International Monetary Fund (IMF) conducts state-by-state comparisons, reaching the conclusion that the lack of meaningful technological innovations is a questionable explanation for the dismal productivity growth observed in the U.S. in recent years. The report notes that productive efficiency varies widely across states and, while all states have experienced slowdowns in productivity growth, particular states have experienced significantly sharper slowdowns. The IMF report argues that efficiency losses and a lack of dynamism in the economy are the primary culprits for lackluster productivity growth.² However, the drivers behind slower productivity growth are still being debated and studied.

² The following Financial Times article from May 2016 provides useful information regarding the decline in economic dynamism in the U.S.: <https://ig.ft.com/us-economic-dynamism/>. Note: subscription needed to access content.

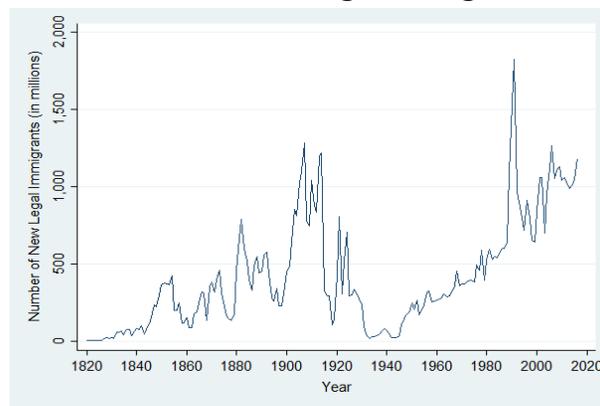
Figure 7
Labor Force Growth



Source: St. Louis Federal Reserve

It is well known that social programs, such as Social Security and Medicare, are facing increasing pressure from the Baby Boomers who are exiting the labor force and moving into retirement. However, there are other concerns about these workers leaving the labor market. In particular, a shrinking labor force is an important concern. Ultimately, the only way to counter such a strong demographic headwind is to allow more immigrants into the U.S. to work. Legal immigration to the U.S. has been trending upward since 1940, but seems to have stabilized in recent years around one million or so new immigrants each year (Figure 8).

Figure 8
Number of New Legal Immigrants



Source: St. Louis Federal Reserve Board

The Trump Administration’s immigration policy, while focused on curbing illegal immigration, supports restrictions on legal immigration as well, including limiting the number of refugees, guest workers and green card recipients. Given the rapidly aging population, the U.S. economy could benefit from an influx of workers, and the only way to achieve that is through more, not

less, immigration. In addition, immigrants tend to be [drivers of innovation](#) in the U.S. economy, and regions with more immigrants tend to be more economically dynamic than areas with fewer immigrants. In addition, the benefits immigrants confer on the U.S. tend to [outweigh the costs](#) (especially for prime-age workers, which comprise the majority of immigrants coming to the U.S.). Perhaps Senator Jeff Flake (R-AZ) [said it best](#): “You can be pro-growth and anti-immigrant. You just can’t be both.”

Protectionism

In January 2018, President Trump announced tariffs on imported [washing machines and solar panels](#), and he announced his intent to impose [tariffs on imported steel and aluminum](#) in early-March 2018. The President believes particular countries (e.g., China) engage in unfair trade practices, and he wants to protect particular firms/industries from such practices. However, curbing unfair trade practices with tariffs has the potential to cause more harm than good. In fact, President Bush, in 2002, implemented [tariffs on steel imports](#), and the net effect on employment was actually negative. That is, estimates suggest that more jobs were lost in response to the tariffs than were gained.

Consider the steel industry. About two-thirds of steel used by U.S. firms is produced in the U.S., leaving about one-third coming from abroad. The top four countries from which the U.S. imports steel are Canada, Brazil, South Korea, and Mexico. These countries are not known for or typically accused of unfair trade practices. Thus, in an effort to punish countries that the administration believes is trading unfairly (e.g., China), the steel and aluminum tariffs inflict harm on our allies, and the countries accused of trading unfairly are modestly, if at all, affected by the tariffs.

Although the direct effect of the tariffs imposes harm on non-U.S. steel and aluminum producers, the impact will spill over and harm U.S. producers who rely on steel and/or aluminum as key inputs. Large industries, such as the automotive, heavy equipment, and construction industries, would be particularly harmed by the tariffs. Steel-using producers would, as a result of the tariffs, pay higher input prices, which would have a ripple effect on these firms. One likely outcome is an increase in the prices of many final goods (e.g., automobiles, fork lifts, etc.).

Interestingly, [Lydia Cox \(Harvard\) and Kadee Russ \(UC-Davis\)](#) estimate that steel-using industries employ 80 times as many workers as the steel-producing industry. As a result, workers in steel-using industries are likely to be harmed more than workers in the steel-producing industry are helped. The harm on the steel-using industry could result in layoffs and/or stunt the wage growth currently underway in the U.S.

Another aspect of the steel and aluminum tariffs should be emphasized as well. In particular, our trading partners will likely respond with increases in tariffs on U.S. goods flowing into their countries. In fact, both [Canada](#) and the [European Union](#) have threatened to impose tariffs in response. If other countries retaliate, exporting industries, both those that do and do not use steel or aluminum as inputs, would be harmed.

In the end, the tariffs may generate some winners (U.S. steel and aluminum producers), but it will create many losers (everyone else).

Changes to Business, Corporate and Individual Taxes

In December 2017, President Trump signed into law a number of changes to the tax code.³ When thinking about these changes, it is useful to separate the changes to individual income taxes and business/corporate taxes.

On the individual side, the bill preserved the seven tax brackets in place before the law change, but the marginal rates in many cases were lowered slightly. The standard deduction was almost doubled, some personal exemptions were eliminated, caps on state and local tax deduction were put in place, the child tax credit was expanded, the cap on mortgage interest deduction was lowered, the number of people subject to the alternative minimum tax (AMT) was lowered, almost everyone was exempted from the estate tax, the speed of inflation adjustment in the tax code was lowered, and the mandate to buy health insurance was eliminated.

On the corporate side, the bill lowers the tax rate on pass-through businesses but includes some measures to prevent abuse of the pass-through tax breaks, reduces the statutory corporate from 35 percent to 21 percent, and moved the U.S. to a territorial tax system.

Given the healthiness of current economic conditions, most economists (as well as fiscal conservatives) would contend that any tax reform implemented should be deficit-neutral. That is, reforms that improve efficiency but do not increase budget deficits would be beneficial for the U.S. economy. Prior to these tax changes, U.S. statutory corporate tax rates were without question near the highest in the world. Lowering the rate improves the competitiveness of U.S. firms in the world. But, again, any tax cuts need to be offset by additional revenue (e.g., closing of various loopholes). However, the tax plan cuts revenue more than it raises revenue, even taking into the dynamic growth effects coming from the tax reductions. In fact, the Joint Committee on Taxation projects a \$1.46 trillion increase in the budget deficit over the next

³ In an interview with the *Harvard Business Review*, Harvard Finance Professor Mihir Desai discusses the corporate tax changes: <https://hbr.org/ideacast/2017/12/breaking-down-the-new-u-s-corporate-tax-law>.

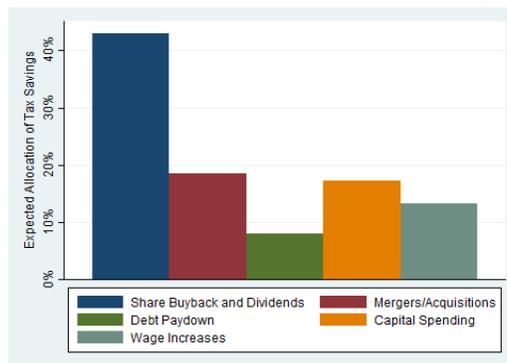
decade. Other groups have reached similar conclusions, including the Tax Policy Center, the Penn-Wharton Budget Model, and the Committee for a Responsible Federal Budget.

In times of collapsing economic activity, one can justify, on reasonable grounds, the need for fiscal stimulus (i.e. tax cuts and/or government spending). However, it is difficult to justify economic stimulus given current economic conditions. It is likely that the tax cuts will generate some increase in economic activity, but that will come at a significant cost. The government will need to borrow funds to finance the tax cuts. Such action puts the U.S. at risk when the next recession comes, which will certainly happen but at an unknown date. Put differently, the U.S. should be preparing for the next recession instead of injecting stimulus at a time when the economy is doing well.

In addition, the economic activity generated by the tax cuts may be, to some extent, offset by Federal Reserve (FED) policy. If the tax cuts generate more demand, prices would rise. If prices rise above the two-percent FED target, the FED will likely respond with rate hikes, which would slow growth. In fact, the FED has already indicated to markets its [intent to raise rates during 2018](#).

One justification for the tax cuts provided by the Trump Administration was their impact on wages. The theory behind this justification is, to some extent, appealing. However, businesses will not necessarily use the proceeds from the tax cuts to raise workers' wages. Business may use the proceeds for other priorities. Recently, Moody's Analytics surveyed corporations and asked them how they planned to spend their tax savings. Their responses indicate that raising wages is low on the list of priorities (Figure 9).

Figure 9
Expected Allocation of Tax Savings



Source: Moody's Analytics

Raising wages was ranked fourth out of the five possible ways to allocate the tax savings. Corporations, on average, expect to allocate about 40% of the tax savings to either buying back

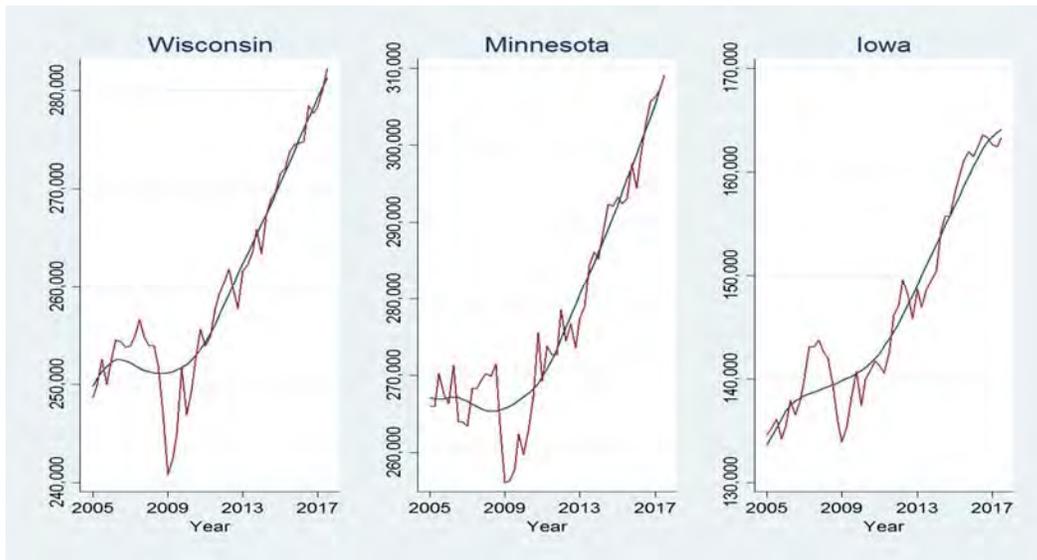
shares or paying dividends. Mergers and acquisitions and capital spending rank second and third, respectively. If the expected allocations come to fruition, the corporate tax changes will have, at best, a modest effect on real wages.

Labor market concentration, which has been on the rise in recent years, is another feature of the labor market that is suppressing real wages. When labor markets are more concentrated, employers possess market power, which affords them the ability to pay wages below the value created by the worker. When labor markets are less concentrated, employers must compete more vigorously for workers, and that greater competition results in higher wages. In the end, rising labor market concentration will counter, to some extent, any positive wage increases in response to business tax relief.

Economic Activity in Iowa, Minnesota and Wisconsin

Economic activity in Iowa, Minnesota and Wisconsin has improved substantially over the last decade (Figure 10). For each state, a sharp drop in real GDP occurred between 2008-2009, but then each state began to recover. The smooth trend line fitted through the data points for each state show upward trends in each state. For Wisconsin and Minnesota real GDP appears to be steadily increasing in recent years, whereas real GDP appears to be leveling off in Iowa.

Figure 10
Real Gross Domestic Product



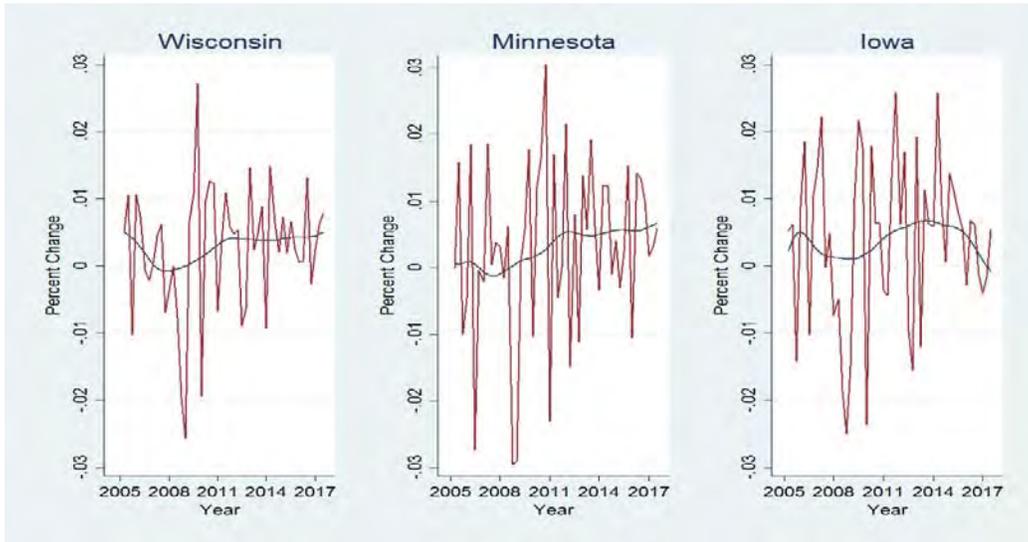
Source: Bureau of Economic Analysis

While the economies of Wisconsin, Minnesota and Iowa appear to be growing relatively strong, the percentage change in real GDP, which captures the rate at which real GDP is growing over

time, may provide a more nuanced story regarding how these state economies are performing. In Figure 11, the growth rates in real GDP for Wisconsin, Minnesota and Iowa are plotted from 2005-2017. Visual inspection of the actual data (red lines) is quite “noisy.” The smooth trend fitted through the data points (blue lines) removes the “noise” in the data, providing insight into how real GDP growth in these states is trending.

From Figure 11, the real GDP growth rate in Wisconsin is largely flat in recent years, hovering around a half a percent in real growth each year. Minnesota’s growth rate is similar, although the trajectory of Minnesota’s growth rate is steeper than Wisconsin’s. In Iowa, real GDP growth has begun to slow, as the smooth trend fitted through the data points reveals a downward trend since 2014. Thus, all three states’ growth rates are below that for the U.S. economy as a whole.

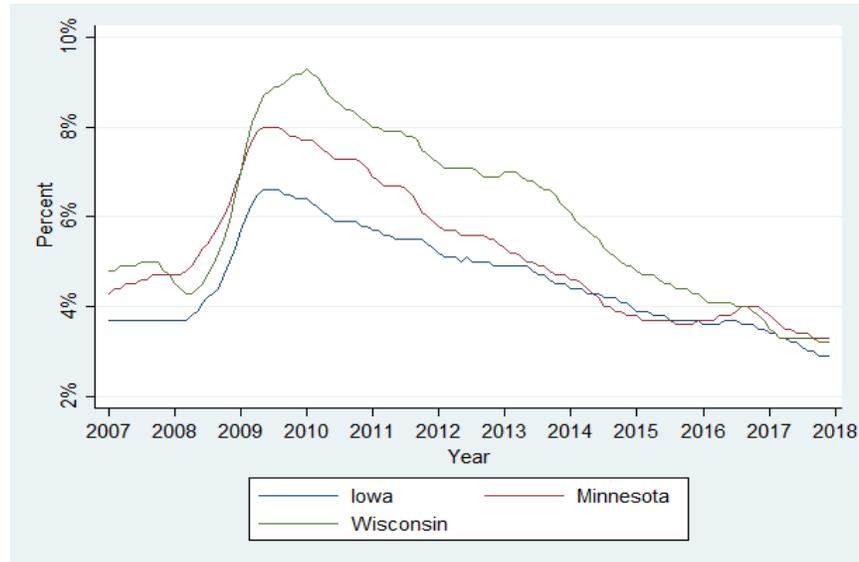
Figure 11
Percent Change in Real Gross Domestic Product



Source: Bureau of Economic Analysis

The unemployment rates in Iowa, Minnesota and Wisconsin rose sharply 2008 and then started falling in 2010. Initially, Wisconsin’s unemployment rose to a higher level than those in Minnesota and Iowa. However, for the most recent data, each of these states has unemployment rates around the 3.5 percent range.

Figure 12
Unemployment Rates in Iowa, Minnesota, and Wisconsin (2007-2017)

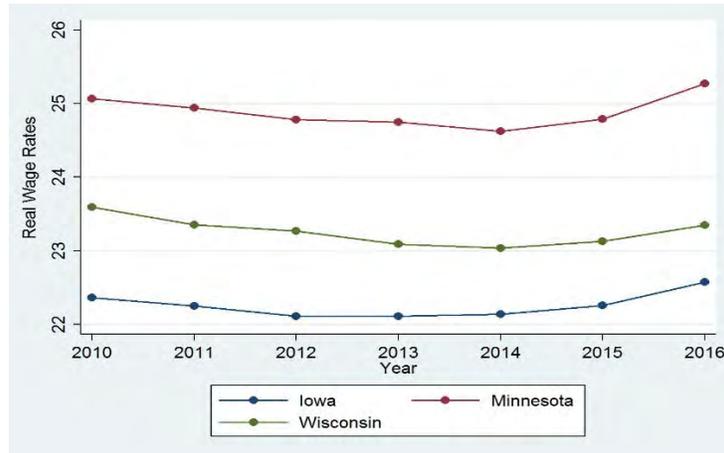


Source: Bureau of Economic Analysis

The slow yet stable real growth in state GDP in Iowa, Minnesota and Wisconsin coupled with the historically low unemployment rates are suggestive of a labor market that is “tight.” Labor economists often use the terms “tight” and “loose” to describe the conditions in the labor market. When conditions are tight, firms are in need of workers, who are hard to find. When workers are searching for jobs for which too few are available, labor economists refer to such conditions as loose. Most analyses of the U.S. labor market indicate significant tightness. The same conditions are seemingly present in Iowa, Minnesota and Wisconsin. When labor markets are tight, economic logic predicts an increase in wages in response, as firms vying for workers would need to compete via raising wages in order to attract workers. In Figure 13, real average wages in Iowa, Minnesota and Wisconsin are plotted over time.

Figure 13

Average Real Wages in Iowa, Minnesota, and Wisconsin

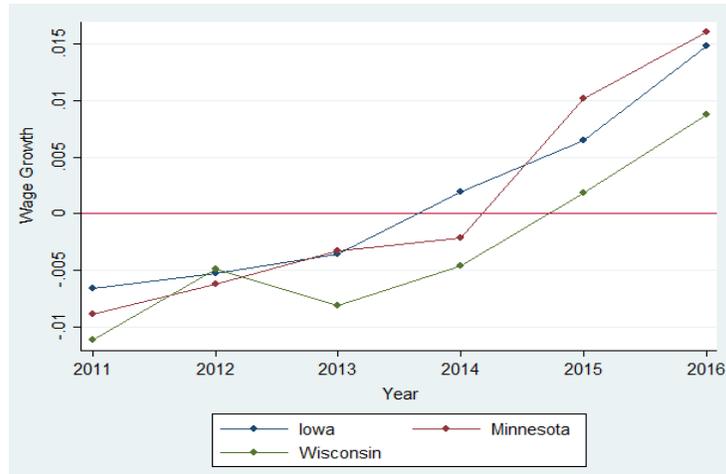


Notes: Author's calculations using data from the Occupational Employment Statistics provided by the Bureau of Labor Statistics

From Figure 13, average real wages in Iowa and Minnesota are above the levels in 2010, while real wages in Wisconsin are below the level they were at in 2010. Real wages declined in each state until 2014, at which time real average wages began growing. Visual inspection of the trend lines for each state suggest that real wages in Minnesota and Iowa are accelerating faster than those in Wisconsin since 2014.

In Figure 14, we examine the rate at which real wages are growing in Iowa, Minnesota and Wisconsin. In particular, the percent change in real average wages for Iowa, Minnesota and Wisconsin are plotted over time. Positive real wage growth began in Iowa in 2014, Minnesota in 2015, and Wisconsin in 2015. Even though all three have posted real wage growth in the last couple of years, real wages in Wisconsin began growing later than the other states, and the level of growth between 2015-2016 is over a half of a percent lower in Wisconsin than it is in the other states.

Figure 14
Real Wage Growth in Iowa, Minnesota, and Wisconsin

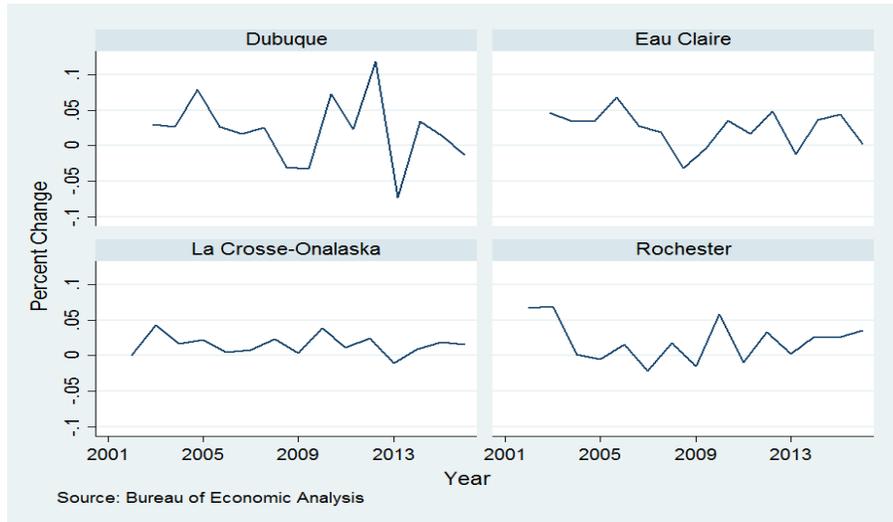


Notes: Author's calculations using data from the Occupational Employment Statistics provided by the Bureau of Labor Statistics

Economic Activity in La Crosse and Surrounding Areas

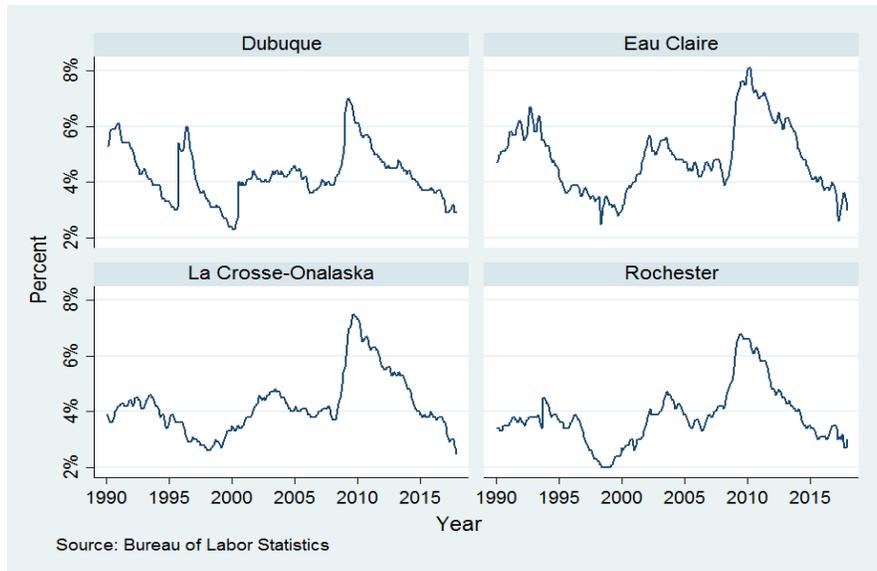
In Figure 15, the percentage change in real GDP, which allows one to measure the growth or lack thereof, for Dubuque, Eau Claire, La Crosse-Onalaska, and Rochester are presented for the years 2001-2017. The real GDP growth rate in Dubuque is far more volatile than that for Eau Claire, La Crosse-Onalaska and Rochester. The latest estimates indicate negative growth in Dubuque, declining growth in Eau Claire, steady but low growth in La Crosse-Onalaska, and steadily increasing growth in Rochester.

Figure 15
Real GDP Growth Rates in
Select Metropolitan Areas (2001-2017)



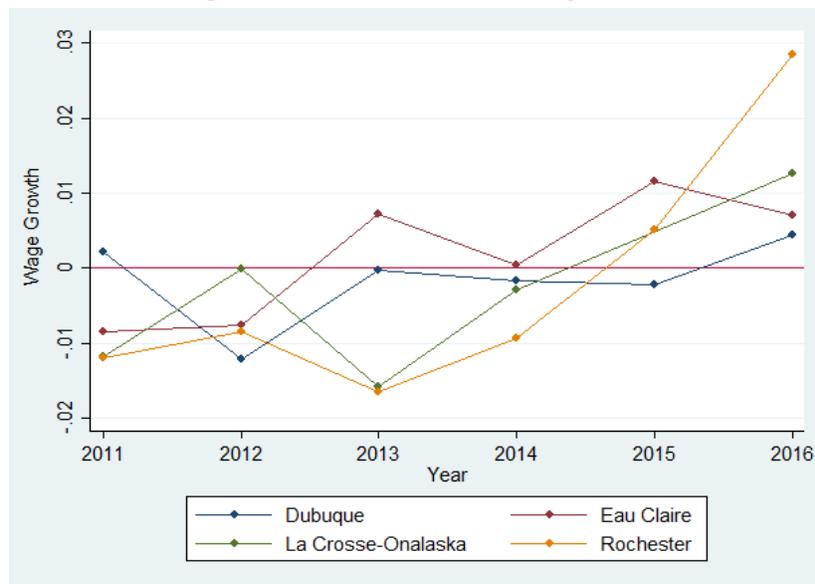
The labor markets in these areas appear to be functioning well, as the unemployment rates in each MSA have fallen substantially over the last decade (Figure 16), with current rates hovering around 3.0-3.5 percent range.

Figure 16
Unemployment Rates in
Select Metropolitan Areas (1990-2017)



Given the strength of the labor markets in these metropolitan areas, economic theory predicts an uptick in real wages as the labor markets tighten. Indeed, such a pattern is present (Figure 17). For the most part, real wage growth was negative until 2015. Real wage growth has been more sluggish in Dubuque than in Eau Claire, La Crosse-Onalaska, and Rochester. In 2016 (the latest data available), real wage growth is nearing 3 percent in Rochester; slightly more than 1 percent in La Crosse-Onalaska, slightly less than 1 percent in Eau Claire, and around 0.5 percent in Dubuque.

Figure 17
Real Wage Growth in Select Metropolitan Areas



Notes: Author calculations using Occupational Employment Statistics

The Market for Interns

Background

Internships often provide students' first experiences in the skilled labor market. In 2015, more than 60 percent of graduates had held an internship at some point during their college careers, more than double the rate in the 1980s.⁴ In response to increasing mismatch between educational attainment and jobs for new college graduates since the early-2000s (Abel, Deitz, and Su 2014) and the prioritization of relevant experience in hiring decisions (Cappelli 2014; Nunley, et al. 2016; Nunley, et al. 2017), students have come under increasing pressure to obtain relevant work experience, and internships seemingly offer students a way to enhance

⁴ See <http://www.naceweb.org/s10072015/internship-co-op-student-survey.aspx> (last seen 19 March 2017) and the Lindquist-Endicott Report (1992). Web page no longer available. Content archived.

their résumés. Empirical evidence on the labor-market returns to internship experience indicates improved early-career employment prospects (Nunley, et al. 2016) and higher earnings later in life (Saniter and Siedler 2014).

The U.S. Department of Labor (DOL) characterizes internships as a means to “provide short-term, practical experience for students, recent graduates, and people changing careers.”⁵ Although the durations of internships are usually less than one year and apprenticeships can last many years, internships have assumed many of the features of apprenticeships as the size of the internship market has grown. For example, a 2015 survey of U.S. firms indicates that 90 percent of interns who return for a subsequent internship are offered full-time employment.⁶ Among the 90 percent offered full-time employment, almost 90 percent of them accept the offers. The high rate of transition from intern to full-time employee seems to indicate that an internship, like an apprenticeship, serves an important role in determining eventual employment.

Our Study (Jaeger, Nunley, Seals and Wilbrandt)

To shed light on the market for interns, we construct a rich data set from information contained in advertisements posted on a prominent online job/internship website to describe the demand side of the internship market. We also conduct the first large-scale résumé audit of the market for internships to estimate the effects of internship and applicant characteristics on employer responses.

The regular labor market college graduates enter and the internship market have conspicuous differences. According to the American Community Survey (ACS), 89 percent of college-educated, 24-28 year-old workers are employed full time in paid jobs, yet our data indicate that 70 percent of internships are part time and 60 percent are unpaid (Table 1). Moreover, 72 percent of full-time internships are paid, whereas only about 27 percent of part-time internships are paid. Hence, the internships that correspond time-wise with regular jobs are likely to be remunerative.

⁵ See <https://www.bls.gov/careeroutlook/2006/summer/art02.pdf> (last seen 19 March 2017).

⁶ The National Association of Colleges and Employers’ 2015 Internship & Co-op Survey.

Table I
Cross Tabulation Between Paid/Unpaid and Part-Time/Full-Time Statuses

	Part-Time Internships	Full-Time Internships	All Internships
	(1)	(2)	(3)
Paid Internships	19.23% [7,092]	21.21% [7,823]	40.44% [14,915]
Unpaid Internships	51.13% [18,859]	8.43% [3,108]	59.56% [21,967]
All Internships	70.36% [25,951]	29.64% [10,931]	100.00% [36,882]

Notes: The numbers of observations in each cell are provided in brackets below the percentages.

To further study the characteristics of internships, the title, description, duties, responsibilities and requirements, from the advertisements, are used as inputs in a machine-learning algorithm (MLA) that (a) classifies the ads into occupation categories by assigning O*NET Standard Occupational Classification (SOC) codes and (b) assigns an occupation-match score that proxies for how closely an ad matches the characteristics of a given detailed occupation category.

Although all occupation categories are represented in our sample, internships are disproportionately concentrated in the following occupation categories: (i) management, (ii) business and finance, (iii) computer and mathematical, (iv) arts, design, entertainment, sports and media, (v) sales, and (vi) office and administration (Table 2). In most occupation categories, similar numbers of internships are paid and unpaid. The only categories that are distinctively different in their offering of paid/unpaid internships are (a) arts, design, entertainment, sports and media and (b) sales. The former are disproportionately unpaid, while the latter are disproportionately paid. In addition, internships assigned to the arts, design, entertainment, sports and media tend to be part time, while those assigned to sales tend to be full time. Again, these patterns suggest a strong link between paid/unpaid and part-/full-time statuses.

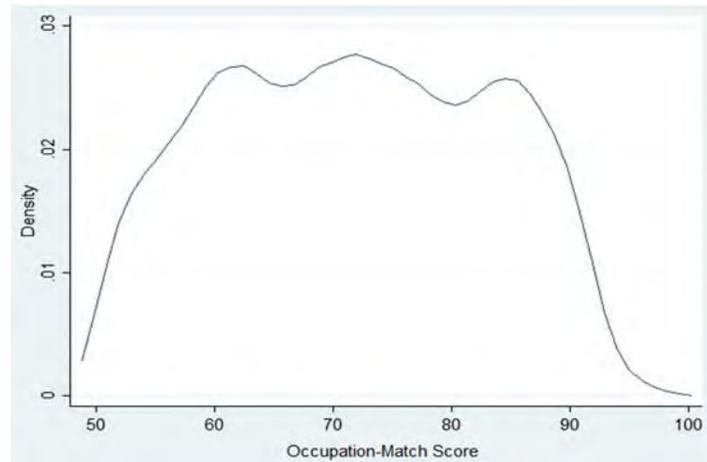
Table 2
Classification of Internships into Occupation Categories

Major Occupation Category	All Internships (1)	Unpaid Internships (2)	Paid Internships (3)	Part-Time Internships (4)	Full-Time Internships (5)
Arts, Design, Entertainment, Sports, and Media	30.00%	38.02%	18.20%	35.44%	17.11%
Business and Financial Operations	21.96%	22.50%	21.17%	22.61%	20.43%
Sales and Related	15.32%	6.82%	27.84%	9.78%	28.46%
Office and Administrative Support	9.64%	8.76%	10.93%	9.63%	9.65%
Management	6.16%	5.27%	7.48%	5.21%	8.42%
Computer and Mathematical	5.83%	5.29%	6.64%	5.24%	7.24%
Other	11.09%	13.34%	7.74%	12.09%	8.69%
Numbers of Observations	36,882	21,967	14,915	25,951	10,931

The occupation-match score generates a nuanced picture of the differences between internships and jobs (Figure 18). An internship assigned a high score is more closely related to the detailed occupation to which it is assigned. Thus, the occupation-match score provides a useful metric for the extent to which an internship resembles an actual job. From Figure 16, one can see that the degree of similarity between internships and jobs varies widely. Put another way, it appears that some internships closely resemble jobs and other internships resemble jobs to a lesser extent. Perhaps the internships with low occupation-match scores are effectively educational experiences.

Figure 18

Similarity Between Internships and Detailed Occupations



Primary Public Policy Issue

An institutional feature of apprenticeships—not paying a wage for the apprentice’s work—has become a common, if controversial, feature of the internship market. The DOL has stated that it is possible for an intern not to be considered an “employee” under the Fair Labor Standards Act (FLSA) if the internship is similar to training obtained in an educational environment and it is understood the intern is not entitled to pay or regular employment with the firm in the future.⁷ Whether interns are employees has been the subject of a federal lawsuit, in which the court ruled interns were employees and therefore subject to the FLSA (*Glatt v. Fox Searchlight Pictures, Inc.* 2015). But that ruling was later vacated by a federal appeals court (*Glatt v. Fox Searchlight Pictures, Inc.* 2016).⁸

Ultimately, the fundamental public-policy issue is whether interns should be extended the normal contractual benefits of employment. Thus, an important aspect of internships is the extent to which they resemble regular jobs. If unpaid internships maintain most or all of the characteristics of otherwise paid labor, a case could be made for the government to require firms to recognize interns as employees, who would then possess all of the attendant protections under the law. However, if unpaid internships noticeably differ from otherwise paid labor, then shoehorning internships into the legal category of paid labor would likely lower the availability of internships, which provide experience to young workers and possibly marketable job skills. Even in situations in which the internship closely resembles a job, the prospect of

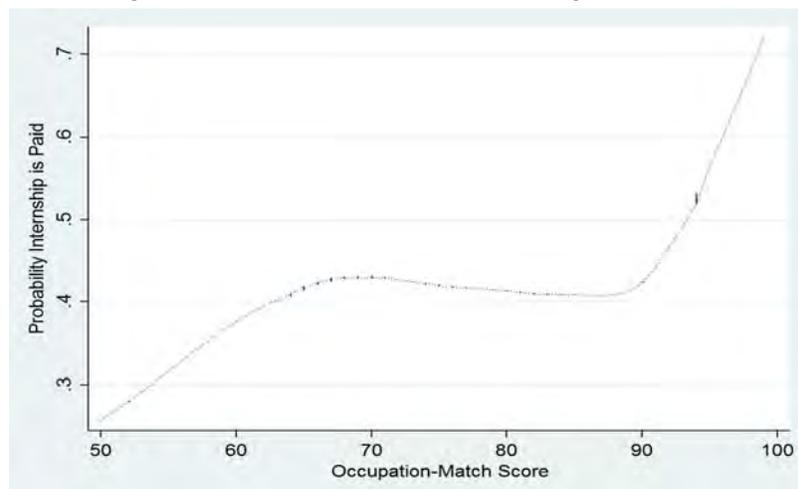
⁷ See <https://www.dol.gov/whd/regs/compliance/whdfs71.pdf> (last seen 19 March 2017).

⁸ The federal appeals court decision created a new set of criteria to determine whether the unpaid intern is the “primary beneficiary” of the internship (*Glatt v. Fox Searchlight Pictures, Inc.* 2016), in which case the intern would not be entitled to compensation. However, Hacker (2016) argues that the criteria generates an ambiguous test for employee status.

better employment opportunities in the future may result in a greater willingness on the part of the intern to work for a zero wage.

Two pieces of evidence already presented suggest that internships and jobs may be fundamentally different. First, college graduates tend to work full time, and most internships are part time. Second, the occupation-match score indicates that many internships do not resemble regular jobs to a great extent. Perhaps a more instructive way to test whether internships are jobs is to examine the relationship between paid status and the occupation-match score (Figure 19). The nonlinear but generally upward-sloping relationship between the two variables suggests the following: when internships resemble jobs, firms tend to pay and when the internships are relatively less job-like, firms have a tendency to offer a zero wage. The reliability of the relationship between these two variables is bolstered by our econometric analysis (not presented in this report but summarized subsequently), which indicates that internships assigned high occupation-match scores are 20-25 percent more likely to be paid than internships assigned low scores.

Figure 19
Relationship between Paid Status and Occupation-Match Score



Summary of Main Findings

- Determinants of Paid Status (Analysis of Ad Data)
 - Part-time internships are about 75 percent less likely than full-time internships to be paid.
 - Internship ads that use words indicative of cognitive and writing skills are less likely to be paid.

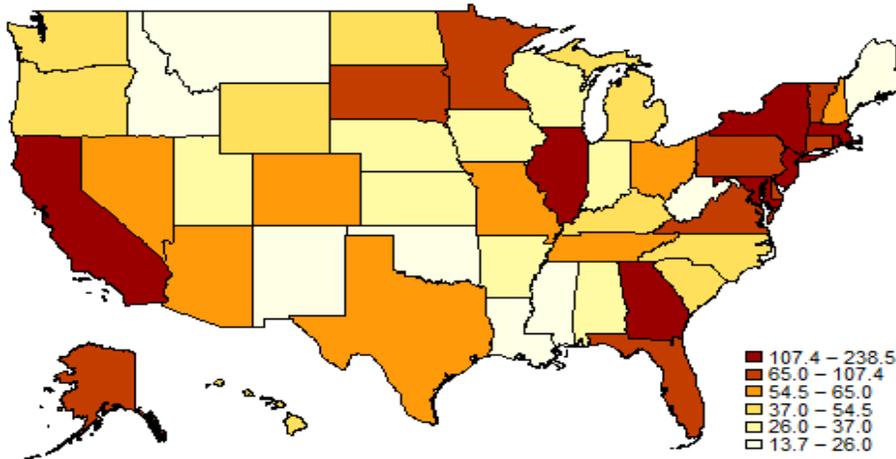
- Internship ads that use words indicative of social and customer-service skills are more likely to be paid.
 - An increase in the unemployment rate in a metropolitan area triggers a decline in the probability an internship is paid.
 - Internships assigned to high-wage occupations are more likely to be paid than internships assigned to low-wage occupations.
 - A strong negative correlation exists between state minimum wages that are above the federal minimum wage and paid status, and the negative correlation is even stronger in states that have committed to raising their minimum wages in the future (e.g., California, New York).
- **Determinants of Internship Opportunities (Resume Audit)**
 - Relative to white applicants, black applicants are about 25 percent less likely to receive a positive employer response. However, the racial gap appears to be driven by distance from the internship. That is, the black-white difference in positive employer responses is essentially zero for applicants living close to the internships. But it widens when applicants are further away from the internship (e.g., over 500 miles). Intern employers were also more likely to inquire about black applicants' location statuses than they did for white applicants.
 - Internship opportunities appear to be local. That is, intern employers tend to discriminate against applicants who live far away. This is true for both white and black applicants. But it matters more for black applicants than it does for white applicants.
 - Applicants with high grade point averages (GPAs) fare better than those with lower GPAs.
 - No pattern exists regarding the importance of college major.
 - Working as an intern in the past helps internship seekers obtain subsequent internships.
 - Paid internships are highly competitive and, as a result, are difficult for applicants to obtain. The probability to receive a positive employer response is about 80% lower when the applicant is applying to a paid internship versus an unpaid one.
 - Internships assigned to high-wage occupations have much lower positive employer response rates than those assigned to low-wage occupations.

Availability of Internships in the U.S.

The geographic location of firms provided in the ads allows us to link internship openings to states. In Figure 20, the number of internships per capita (19-25 year-olds) are provided in a

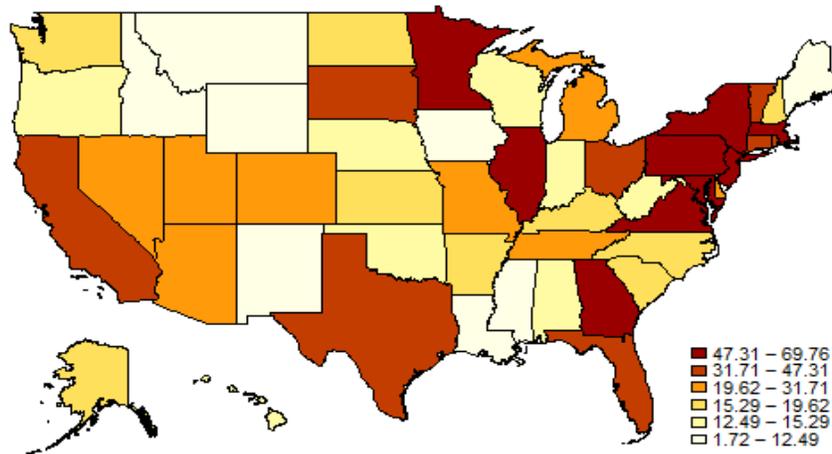
map of U.S. states.⁹ Ranking the number of internships per capita by states reveals the following ordering: Illinois (#7), Minnesota (#10), Michigan (#28), Wisconsin (#40), and Iowa (#42).

Figure 20
Internships per capita by State (19-25 year-olds)



In Figure 21, the same map is presented but, instead of tallying internships overall, focuses on the availability of paid internships. A similar pattern emerges in terms of availability. Wisconsin trails both Minnesota and Illinois. But Wisconsin has more per capita paid internships than Iowa.

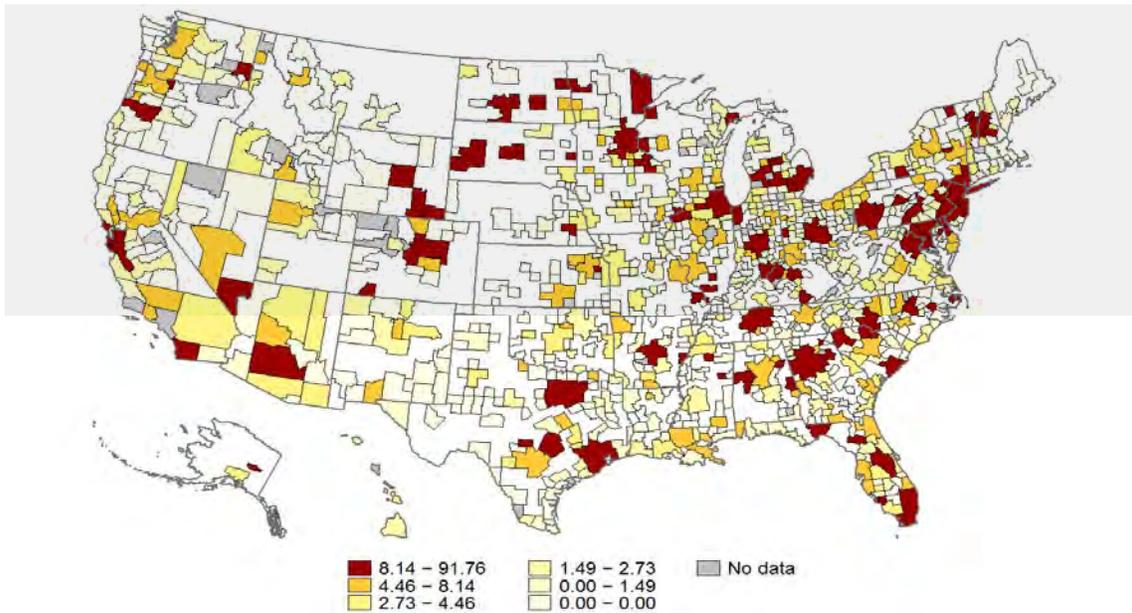
Figure 21
Paid Internships per capita by State (19-25 year-olds)



⁹ Internships per capita in Figures 20 and 21 use the number of 19-25 year-olds to convert the availability of internships into a per-capita measure. If the total population is used instead, the maps are similar.

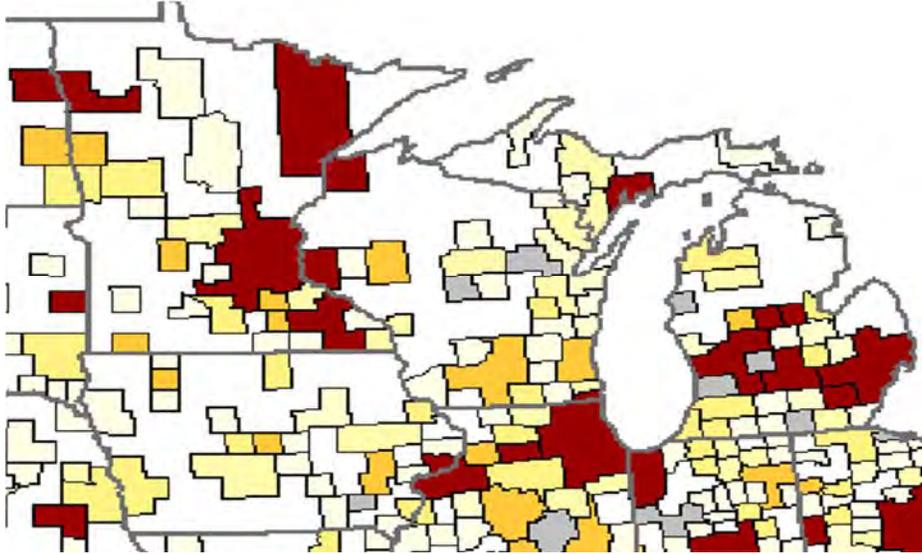
Because the ads contain the firm’s address, it is possible to link the internship openings to metropolitan statistical areas (MSAs). When linking the internships at this level, the patterns in Figures 20 and 21 become clearer. Internships are available throughout most of the U.S., but they are more prevalent in large metropolitan areas along the coasts and in the upper Midwest (Figure 22).¹⁰ The five MSAs with the highest number of internships per capita include a major city (i.e. New York City, Los Angeles, Atlanta, Miami, and Chicago).

Figure 22
Internships per capita by Metropolitan Statistical Area (MSA)



¹⁰ The drawback of examining internship availability at the MSA level, relative to the state level, is that population data by age are unavailable.

Figure 23
Internships per capita by Metropolitan Statistical Area (MSA)
(Select Midwestern States)



In Figure 23, the same map as the one shown in Figure 22 is shown, but the image zooms in on Iowa, Minnesota, Wisconsin, northern Illinois and Indiana, and Michigan. In Minnesota, the Twin Cities, Duluth and the Rochester area have the highest numbers of internships. In Wisconsin, Eau Claire, Madison and Milwaukee are the areas with the highest number of internships available. In Iowa, internship availability is greatest in Ames and Iowa City.

Internships and Recruiting

Knowledge regarding why firms have internship programs is scant. It is possible that firms view their internship programs as de facto training programs, ways to give back to the community, ways to help workers gain valuable work experience, and/or as a type of screening or trial employment program.

In the 7 Rivers Consumer Sentiment Survey sent out in early March, approximately 60 percent of respondents reported that their firms have an internship program. The reasons given for having such a program ranged from training workers (51 percent), screening workers (12 percent), and giving back to the community (20 percent). Regarding whether firms pay their interns, around 69 percent indicated that interns are paid an hourly wage, 10 percent pay a fixed stipend, and 21 percent do not pay their interns. Of firms without internship programs, only three (or 11 percent) reported that they had considered creating such a program.

Worker [shortages](#) are a significant concern in Wisconsin. On top of having a relatively older population, Wisconsin has struggled to keep talent in the state, losing many high-skilled workers to the Twin Cities and Chicago (and other places). It is difficult to know the exact reason why so many young, talented workers are leaving the state, moving to a neighboring state, and working there. But one reason could very well be the lack of internships in Wisconsin. Relative to Minnesota and Illinois, Wisconsin has far fewer internships. In addition, Wisconsin has far fewer paid internships. For obvious reasons, young workers prefer paid internships over unpaid ones.

As noted earlier, internships, like apprenticeships, appear to have substantial effects on eventual employment. Interning with a firm results in a job offer 75 percent of the time, and interning twice with the same firm results in a job offer 90 percent of the time. In the vast majority of cases, the interns accept these jobs. The lack of internships, relatively lower wages and relatively slower wage growth in Wisconsin versus, say, Minnesota puts Wisconsin firms at a disadvantage, and internships (or similar programs) may very well be a way to combat these issues.

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