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2019 Illinois Economic Report

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ILLINOIS DEPARTMENT OF EMPLOYMENT SECURITY

2019 Illinois Economic Report

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Executive Summary

This report focuses on issues that have some relevance to the Illinois economy and its labor markets. The material referenced includes studies of economic issues done at the national level. This is because the amount of material available nationally is much greater than it would be for Illinois or the Midwest. National data is assumed to be reflective of Illinois data unless otherwise specified for this report.

The U.S. economy has remained strong but is showing signs of weakening. The national unemployment rate is near a 50-year low, inflation is low, and wages are growing at their fastest pace in years. However, the risks of recession appear to be increasing for multiple reasons, including high debt held by consumers, businesses, and the government; as well as the impact of trade disputes. A survey completed by the National Association for Business Economics shows that America's business leaders believe the risk of a recession starting in 2019 is only 15% but is 60% by the end of 2020. Meanwhile, a report from Moody's Investors Service says Illinois is among two states least equipped to handle another recession.

Growth in Illinois' economic production has lagged the United States primarily due to differences in population growth. The South and West regions of the U.S. have had stronger population growth than the Northeast and Midwest over the last few decades. Illinois' population fell 0.8% from 2010 to 2018, while the U.S. grew 5.8% and the Midwest grew 2.0%.

Population estimates for 2018 released by the Census Bureau show that the city of Chicago has stabilized in population, while its metropolitan area lost population for the fourth year in a row. The Center for Budget and Tax Accountability believes that the city's population of higher-skilled people is growing while the less-educated and poorer residents are moving away. Chicago was once a city that had manufacturing plants that attracted low-skilled workers to the area, but that is no longer the case.

A World Economic Forum report says that 29% of workplace tasks are carried out by machines today and this will increase to 52% by 2025. Many jobs will be eliminated, and even more will be created

during that time. Workers will need to be trained or re-trained in preparation for these new jobs. Total shipments of robots increased by 16% over 2017 according to the Association for Advancing Automation.

The Federal Aviation Administration expects the number of commercial drones in the U.S. to more than triple by 2023. Lewis University in Romeoville launched an Unmanned Aircraft Systems program in 2015 in anticipation of an increased demand for skilled drone operators.

A section of the bipartisan Tax Cuts and Jobs Act of 2017 includes an Opportunity Zone program intended to reduce the cost of investing in disadvantaged neighborhoods. One site being targeted as an Opportunity Zone in Chicago is the Michael Reese Hospital site south of McCormick Place. Other Chicago sites of interest include the 440-acre South Works steel mill site along Chicago's south lakefront. Small data centers are being planned for Chicago neighborhoods to fill gaps in the data network. These sites are from a list of 135 sites on Chicago's south and west sides.

The middle class has been shrinking while the global and national economies have experienced strong economic growth. Real incomes at the top of the distribution are hitting new highs while real incomes in the middle of the distribution have not grown. The rising costs of education, health care and housing (in some markets) has put even more pressure on the middle class.

The current level of income inequality in the U.S. has not been seen since before World War II. This has a negative impact on the potential for economic growth and thus employment opportunities. Children of families at lower incomes tend to obtain lower educational attainment levels. Therefore, this group is less likely to be as productive as they could be. People of lower educational attainment levels also have lower labor force participation rates. These outcomes are likely to continue for lower income individuals as post-secondary education becomes more expensive.

Rural areas in the Midwest have a smaller prime-age labor force than they once had as some in this age group have transitioned to mid-sized or larger communities with better job opportunities. Many young people that leave after high school for college or military service do not return to the area where they were raised because of a lack of economic opportunity. Employers in those rural areas then face an absence of available workers.

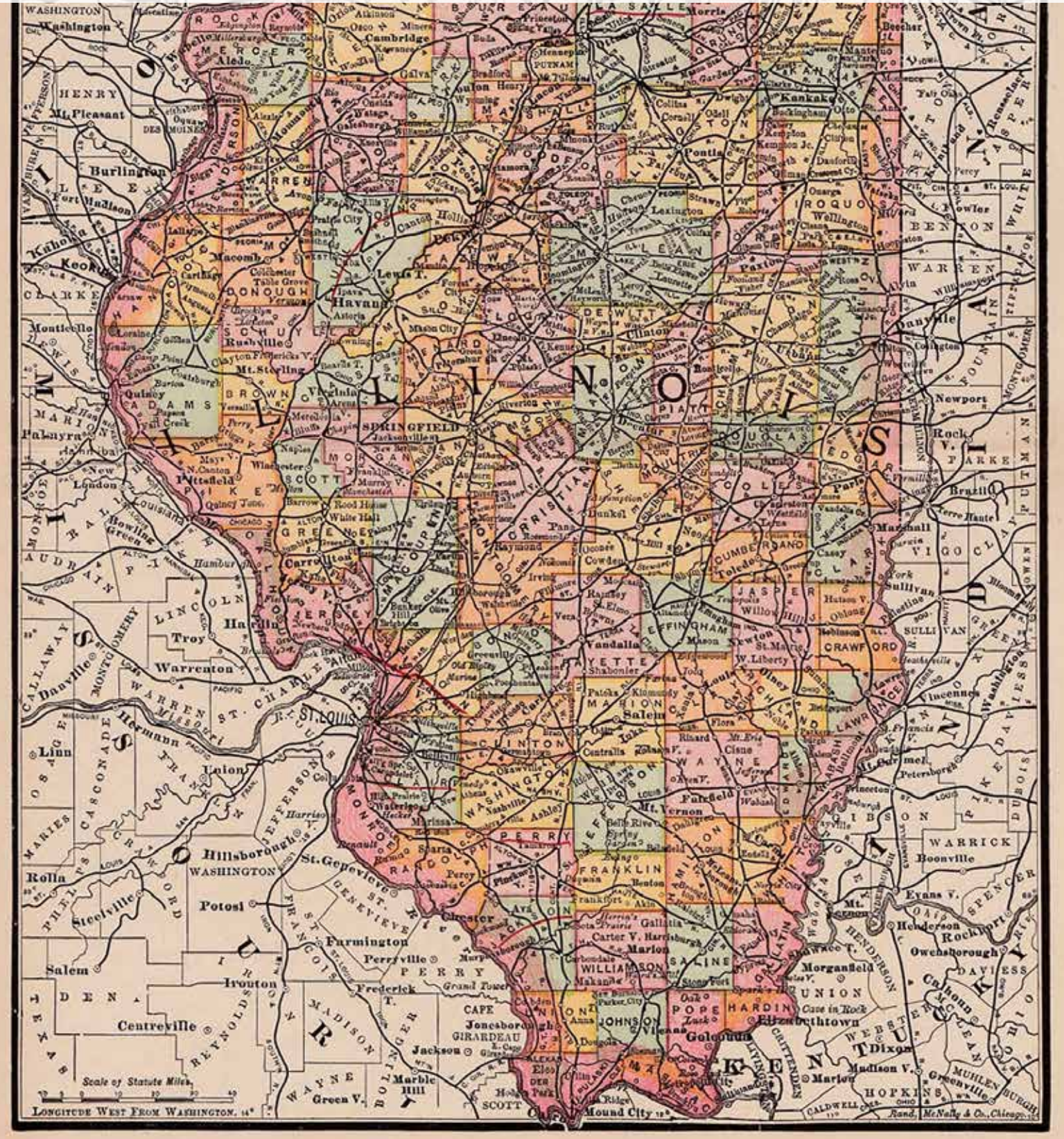
A national survey sponsored by the American Farm Bureau showed 91 percent of respondents cited financial trauma as affecting their mental health. Most rural adults have either sought mental-health care or have a family member who did. Rural areas are now populated with individuals who tend to be older, poorer and sicker than urban areas. They also tend to have more challenges accessing health care and other services.

Employers are now more willing to consider the disabled and individuals with criminal records. Illinois has changed licensing laws to make more than 100 occupations more accessible to people with criminal records.

Participation rates for the elderly have risen in part because some don't have the financial resources to retire. Higher health costs, inadequate retirement savings, and uncertainty about government safety nets have combined to raise the labor force participation rate of those ages 65 and over above the 20 percent mark. Many older workers have college educations and make a good income. This group of older workers are more educated, wealthier individuals in better health who probably like to work.

Although Illinois lags the U.S. in housing starts and growth rates in housing prices, it also offers cheaper housing than the nation. In fact, the median price of a single-family home in the Chicago MSA is cheaper than the median price for the U.S. Median prices for other MSAs with at least a portion of their area in Illinois have median prices well below the median price of the Chicago MSA. This is something that Illinois should take advantage of when recruiting employers and workers to the state.

Technical Notes



Multiple data sources were used for the 2019 Illinois Economic Report.

Data from the Quarterly Census of Employment and Wages (QCEW) program data comes from Unemployment Insurance (UI) tax records submitted by employers covered by the UI Act. The data can be used to measure employment and wage growth over time. Detailed industry data can be easily compiled into four Broad Industry Groups (BIGs). The BIGs are defined as 1) Goods Producing; 2) White Collar Services; 3) Blue Collar Services; and 4) Public. The two separate groupings of "Services Providing" industries are based on assumptions of educational attainment required to perform the tasks of the component industries.

The QCEW data can also be compiled by Economic Development Region (EDR) due to the presence of county codes included on each employer record in the QCEW database. Combined with the separation of data by BIG, non-economic code change (one example: change of reporting location but not location of work) issues associated with QCEW can be minimized. Coding issues in QCEW data can cause problems when using QCEW data at a detailed industry level and/or for detailed geographic regions.

The QCEW data used in the report are annual averages. Since employers report total wages paid to employees (including bonuses and overtime), this provides the best information on the amount workers are earning each year. The annual average employment reported is the average of the 3rd month employment (for each quarter), which is the employment number typically used in QCEW reports.

Current Employment Statistics (CES) data is used to show a comparison of total nonfarm employment trends from 1990 through 2018. Industry and geographic breakouts for CES data do not allow for easy transition to the BIG analysis as was done with the QCEW data. The CES program also does not have the quality of wage data available that QCEW provides. The main attraction of CES data is that employment estimates are made available one month after employers are surveyed.

Labor force data for the United States comes from the Current Population Survey (CPS) with estimates provided by the Bureau of Labor Statistics (BLS). Additional labor force data for Illinois and the ten Economic Development Regions (EDRs) comes from the Local Area Unemployment Statistics (LAUS) program administered by the Illinois Department of Employment Security (IDES).

Data for employment projections (industry and occupational) come from the BLS and IDES. Occupational wage data comes from the Occupational Employment Statistics (OES) program operated by the BLS and IDES.

Labor force participation rates (LFPR) used in this report come from the American Community Survey (ACS) 5-Year estimates (2013-2017). Estimates of educational attainment for adults used in the report also comes from ACS data. The ACS data is used in these cases because it is also available at the county-level making it possible to develop estimates for the ten EDRs in comparison to national and state data.

The LFPR estimates are properly calculated when using non-institutionalized population. However, this data is typically available for the nation and states only. In order to compare LFPRs from the nation with Illinois and its EDRs, the total population is used in place of the non-institutionalized population. The ACS provides only total population estimates, but it does allow then to compare approximated LFPRs for the geographic regions of interest.

Other data sources used in this report include various data sets from the Census Bureau, Federal Reserve Bank, the Bureau of Economic Analysis, and S&P CoreLogic Case-Shiller.

Introduction

A strong labor market requires a strong economy and a strong economy requires the optimization of the allocation of resources. Globalization has increased international trade, which has hurt American labor markets by increasing competition in some markets and through the loss of jobs such as in the manufacturing industry. It has also kept prices low by producing goods in other countries where they can be made cheaper before being brought to the U.S. for sale.

The U.S. economy has some dependence on the global economy as international trade has continued to become more important. Likewise, a state's economy has some dependence on the national economy and a sub-state economy has some dependence on the statewide economy. This report focuses on issues that have some relevance to the Illinois economy and its labor markets, even if the discussion is based on the global or state economies.

The global economy currently appears to be in flux. Issues such as Brexit with the European Zone and Great Britain will have an impact on the economies of those countries and likely some impact on the U.S. economy. Trade issues between the U.S. and China, and the U.S. and Canada and Mexico will have more of a direct impact on the U.S. economy. Political issues involving the U.S. and Middle East countries will have some impact on the U.S. economy, but probably not as much as the previously mentioned international issues.

The U.S. economy has been strong for some time and indicators appear to show that it will remain strong for now. In fact, continued strength in the economy through the summer of 2019 will make it the longest economic expansion on record. However, questions about how long the U.S. economy will remain strong are starting to percolate. Some of these questions are tied to the global trade issues. Other issues include corporate and consumer debt.

Data for the Illinois economy continues to show that it is not as strong as the national economy. Population growth plays a role in economic growth and employment growth; an increase in population of a geographic region naturally increases demand for goods and services in the region. The population growth for the U.S. is strong in the South and West portions of the country. The Midwest and Northeast regions have paled in comparison. The state of Illinois fell behind Pennsylvania in statewide population in 2017 and currently ranks as the 6th largest state in the United States.

Approximately two-thirds of Illinois' population and employment reside in just one of its ten Economic Development Regions (EDRs), the Northeast Region (EDR 4). So much of the Illinois economy reflects what happens in its largest region. This region has virtually all the population growth for the state and thus the strongest economic and employment growth. The region continues to outperform the rest of the regions in the state.

The Northeast Region (EDR 4) is clearly unique. It includes the third most populous metropolitan area in the nation. EDRs 1 (Central), 2 (East Central), 3 (North Central), 5 (Northern Stateline), 6 (Northwest), and 9 (Southwestern) have mid-sized metropolitan areas at their core. EDRs 7 (Southeastern), 8 (Southern), and 10 (West Central) are more rural economies based on smaller communities.

One section of the report "Discussion of Key Topics Related to Employment" is based on numerous news references where other people or organizations have written about topics related to employment issues. The information from these news stories is organized to provide relevant information to the readers of this report. Some stories are included in the report that show what is or could be done in Illinois to expand economic opportunities.

Economic data is used in the "Data Analysis" section of the report that will compare the U.S. with Illinois and Illinois' ten EDRs when the data is available. Some measures may not have data readily available for the sub-state regions. Sometimes a comparison of national and state data is all that is necessary. A review of employment statistics is also done that will provide some idea of the standing of Illinois and its sub-state regions in relation to the nation.

The purpose of this report is to provide a discussion of issues that are related to employment and labor markets for Illinois. They may have impacts at one, some, or all geographic regions (global, national, state, and sub-state).

Discussion of Key Topics Related to Employment

Macroeconomy

The macroeconomy considers issues that impact the large-scale economy. The global economy has had some recent struggles including a trade dispute between the U.S. and China; the renegotiation of a trade agreement between the U.S., Canada and Mexico (NAFTA to USMCA); and the progress of Brexit with Great Britain negotiating its withdrawal from the European Union.

The growth of the Chinese economy has slowed as it tries to transform its economy from one based on agriculture and lower-level manufacturing to one more based on services and consumption. Trade disputes with the U.S. have put more stress on their economy.

The U.S. economy has data measures showing low unemployment rates, low inflation, and rising wages would make one believe that all is well throughout the economy. However, other issues with income inequality, housing affordability, people unable to afford basic needs, and a mismatch between the skill-level of workers with the type of jobs employers have available still exist.

The peak for the global economy appears to have passed by as economists are now hoping to avoid a recession in the U.S. and a "hard landing" in China. The forecast is vastly different as of the end of 2018 compared to a year earlier when the world had its best growth since 2010. Builders in the U.S. are erecting fewer single-family homes, German factories are sputtering, and retail sales in China are growing at their slowest pace in 15 years. [1]

The current U.S. administration has made the adjustment of international trade rules a focus of its strategy. China was already having some economic issues before this challenge and is now growing at its slowest rate in nearly a decade. Japan and Germany (3rd and 4th biggest economies in the world) both contracted in 2018 Q3. [2]

The administration has introduced trade barriers cutting off some market channels resulting in the increase of some manufacturing costs due to the higher price of inputs. This has also created a lot of uncertainty for American firms with global supply chains. [3]

Good relationships among central banks, finance ministers, and other leaders around the world was beneficial to coordinating a response during the last financial crisis. This helped to keep matters from getting worse than they already were. The relationships for this group of people are not as strong now and may result in a worse outcome if the world were to face similar circumstances. [4]

Meanwhile, the U.S. economy has remained strong. A federal tax cut helped stimulate the economy to its fastest pace since 2005. The national unemployment rate is near a 50-year low and corporate profits and wages are growing at their fastest pace in years. However, certain industries such as housing that are sensitive to rising borrowing costs are struggling. Consumers have also shifted their preferences from sedans toward SUVs and pickup trucks, which is causing layoffs in the auto industry. [5]

The Bureau of Labor Statistics reported an average gain in hourly wages of 3.2 percent in December 2018, higher than the 2.4 percent average gain seen over the last five years. This increase is due to minimum wage increases, higher starting wages for workers due to competition, and resulting wage increases for experienced workers. The increase in wages also appears to be drawing back people who had previously left the labor force. [6]

China had $2.2 trillion of imports in 2017 while the U.S. had $2.7 trillion. The world has become almost as dependent on China to buy up their goods and services as the U.S. Any decline in the Chinese economy would have a large impact on the global economy. This would hurt American farmers who have in the past exported large amounts of agricultural commodities to China. Of course, the U.S.-China trade war has already curtailed much of the agricultural trade between the two nations. [7]

During the last 40 years, China has utilized economic policies that have lifted more than 700 million people out of poverty while becoming a member of the global economy. These policies led to pollution of their environment and a large amount of debt. China is now shifting policies in an effort toward becoming a wealthy nation. [8]

The only five industrial economies in East Asia that have taken that step are Japan, Hong Kong, Singapore, South Korea, and Taiwan. China is now trying to transform its economy from primarily an agricultural economy, with a secondary sector of construction and manufacturing to a service-based economy. A budding trade war slows China down from making progress toward the objective continued economic growth needed to increase per capita income. [9]

Only 30 percent of the Chinese labor force had finished high school as of 2015. They provided the labor force for the agriculture and manufacturing sectors of the economy, but the education of its workers must be improved for China to reach its goal. A big problem with education is that workers in the rural areas are one-fourth as likely to have a high school education as those from the urban parts of China. Rural areas account for two-thirds of the country's children. [10]

Nobel laureate Paul Krugman has said that the U.S. economy may be heading into a recession due to an accumulation of problems such as larger amounts of public debt and with the Federal Reserve Bank lacking the firepower for a good policy response. Not much room is left for the Fed to increase public debt or lower interest rates. [11]

Many U.S. businesses took advantage of low interest rates following the financial crisis to obtain higher returns on their investment. The generous lending terms available to struggling businesses at the time encouraged them to take on more debt than what might have been available in other times. Some of these same businesses are now in a situation that requires them to use much of their earnings to pay off lenders rather than putting it toward their business. [12]

About 17% of publicly traded companies had trouble making debt interest payments at the end of 2018, up from less than 10% in 2010, and slightly down from a peak of over 20% in 2016 according to the Institute of International Finance Inc. This situation should be watched as this could have a negative impact on hiring and would be only worse in the case of a recession. [13]

China is under pressure to make a trade deal with the U.S. as its economy has slowed down. It has tried to ramp up government-led spending and ordered banks to lend more to private businesses. However, the results have not been as effective as they were previously. The number of defaults is rising as is the amount of debt, which decreases the rate of long-term growth. [14]

China has proposed that it could buy an additional $30 billion a year of U.S. agricultural products including soybeans, corn and wheat as part of the trade negotiations. China has offered to increase purchases of agricultural and energy products to shrink the U.S. trade deficit. In 2017, China imported a total $24.2 billion in American agricultural products, with 60 percent of that being oilseeds with the remainder in products such as meat, cotton, cereals and seafood. [15]

The U.S. and China came to a preliminary agreement in December 2018 where the U.S. postponed an increase in tariffs from 10 percent to 25 percent on almost half of the goods it buys from China (about $200 billion). The two countries have continued to negotiate since then. China has agreed to increase its purchases of agricultural products, energy, industrial products and services from the U.S. to alleviate the trade imbalance between the two countries. [16]

The U.S. would like to see China's government be less involved in their country's economy and for there to be more protection of U.S. intellectual property. The enforcement aspect of the intellectual property appears to be difficult. An agreement would allow the U.S. to remove tariffs, but neither side wants to be portrayed as giving in to the other. There is a big risk to both sides to move forward with the trade war as this will hurt both economies as well as the global economy. The future rules of the global economy seem to be at stake. [17]

New U.S. tariffs on Mexican goods along with higher tariffs on Chinese imports are expected to raise prices on everything from fruit and vegetables

to cars and some electronic gadgets for American consumers. Analysts also fear the conflict with Mexico could hinder passage of the USMCA, the trade pact negotiated as the replacement for the North American Free Trade Agreement (NAFTA). [18]

Most Americans have not yet felt much impact from the trade conflicts, but that will likely change. The Mexican and U.S. economies are so interlinked after 25 years of NAFTA that a proposed 5% tariff on all Mexican imports and increases in tariffs for Chinese goods could cause price increases for a range of products. This could include items such as avocados, tomatoes, beer, tequila, phones, computers, television and gas at the pump. Prices would likely rise at restaurants and consumers may reduce their spending on eating out and consumer electronics. Walmart has also warned about a potential rise in prices of footwear, clothing and other products. [19]

Senator Marco Rubio believes the real problem with the American economy is that American business no longer invests in the future. In a report released in May of 2019, Rubio puts the blame on institutional changes in corporate management and capital markets that demand an emphasis on short-term financial results over sustainable growth. He believes the main requirement of a successful economy is "developing productive, long-life capital assets". [20]

Net investment by the nonfinancial business sector has collapsed since 2000. Companies that use to make the products and provide the services now look more like banks, with an increasing share of profits coming from financial assets. This change to short-term payouts to shareholders has diverted resources away from investing for long-term payoffs and has hurt innovation and research. [21]

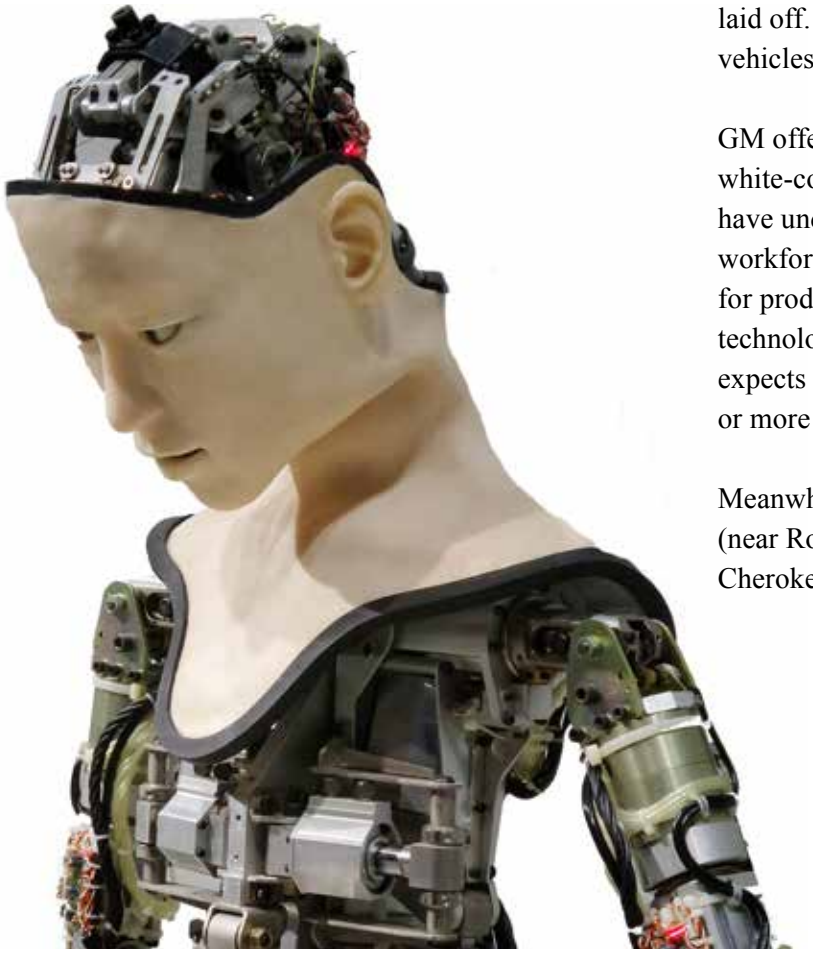
America's business leaders are growing more worried that the United States will enter a recession by the end of 2020 because of protectionist trade policy. A report by the National Association for Business Economics based on a survey by 53 economists found a surge in recession fears. The report shows risks of a recession starting in 2019 is only 15%, but 60% by the end of 2020. [22]

A report from Moody's Investors Service says Illinois and New Jersey are the two states least equipped to handle another recession. It believes the probability of a recession beginning in the next year remains low but says Illinois and New Jersey would face more difficult challenges if a recession were to occur. The main issues for Illinois are its large unfunded pension liabilities and the state's low amount of "rainy day" reserves. The state's bond rating remains at the lowest investment grade available for the same reasons as its low ranking for recession preparedness. [23]

Changes in Industry & Occupation

A World Economic Forum report released in September 2018 says that 29% of workplace tasks are carried out by machines today and this will increase to 52% by 2025. The report expects 75 million jobs to be eliminated, but 133 million jobs would be created during that time. Workers will need to be trained or re-trained in preparation for these new jobs. Employers are expected to have more flexible arrangements for workers and to make work available in different locations to match up with workers that have the right skills. [24]

Walmart, the world's largest retailer, announced in the spring of 2019 that it was adding thousands of new robots to its stores. It expects to have autonomous floor scrubbers in 1,860 of its 4,700 U.S. stores by early in 2020. They also will have robots that scan shelf inventory at 350 stores. Even more will be deployed at 1,700 stores that automatically scan and sort boxes as they are unloaded from delivery trucks. Walmart believes this will reduce the amount of time workers spend on "repeatable, predictable and manual" tasks so they can spend more time on customer service. It also expects this will make stores more efficient and limit worker turnover. [25]



The most robots ever were installed in the U.S. in 2018. Robots are now more diverse in performance as well as cheaper allowing them to spread into more industries. Total shipments increased by 16% over 2017 according to the Association for Advancing Automation. The largest increases were in food and consumer goods businesses (increase of 60%); semiconductor and electronics plants (increase of 50%); and metal producers (increase of 13%). Automation is now spreading into warehouses and smaller factories. [26]

The automotive industry is undergoing changes in labor staffing due to consumer's reduced demand for the traditional sedan as sales dropped to a record low of 30% of total U.S. sales. This is expected to continue to drop to 21.5% of total sales in 2025, according to LMC Automotive. Many factories have been closed and thousands of workers have been laid off. Demand has been increasing for sport utility vehicles (SUVs) and big trucks. [27]

GM offered buyouts to more than one-third of its white-collar staff in the U.S. in October 2018. They have undertaken the process of transforming their workforce to one that has the appropriate skill sets for producing self-driving vehicles and other new technologies including electric vehicles. The company expects 10%-15% of those employees with 12 years or more with GM to accept the offer. [28]

Meanwhile, the Fiat Chrysler plant in Belvidere (near Rockford) is continuing to produce the Jeep Cherokee. The Ford plant in Chicago is changing

production from the Ford Taurus to the Lincoln Navigator in addition to continuing production of the Ford Explorer. These two plants employ almost 10,000 workers. [29]

Rivian Automotive intends to build electric trucks and SUVs in the former Mitsubishi plant in Normal beginning in 2020. The biggest question for the automotive industry is if the workforce currently exists to build electric and self-driving vehicles. [30]

The Bureau of Labor Statistics (BLS) estimates that 46,000 automotive service technicians and mechanics will be needed in the U.S. by 2026. Demand for these skilled workers is increasing because vehicles have become more complex and the required training to fix them is more advanced. [31]

Icahn Automotive recently started its "Race to 2026" program that will provide support for individuals who have an interest in the trade. The program will provide money for education along with job placement and continuing education opportunities. The median annual salary for this occupation was around $40,000 in 2017, but experience and advanced certifications can bring salaries over $100,000. [32]

As the labor force becomes more educated, fewer workers are willing to do manual and low-pay service jobs. The labor shortage in the construction, transportation, and accommodation and food services industries has put upward pressure on wages in those jobs. The manufacturing industry has many workers retiring and are having trouble filling openings. [33]

Automation technology is changing the retail industry and threatening jobs. Shelf stockers, salespeople, cashiers, and other related workers account for 16 million jobs. Stores like Wal-Mart have now made personal shoppers available who fill on-line orders from store shelves. [34]

Independent pharmacies have been closing in Illinois due to changes that allow private insurers to administer Medicaid benefits on behalf of the state. The program saves the state money, but the amount paid out was shifted around resulting in small pharmacies being paid less than before. Pharmacies that are making little or losing money have closed. The change has been especially hard on pharmacies and customers in rural areas. [35]

The Federal Aviation Administration expects the number of commercial drones in the U.S. to more than triple to 835,000 drones by 2023. Chicago-area companies are exploring new ways to use the machines and training more employees how to operate them. Sales of drones topped $69 billion in 2017 and are expected to surpass $141 billion by 2023, according to consulting firm TechSci Research. [36]

As one example, a drone could be used to fly packages to your home and would drop the package into the top of a special mailbox once they have verified the address is correct. Lewis University in Romeoville launched an Unmanned Aircraft Systems program in 2015 in anticipation of an increased demand for skilled drone operators. The industry likes to say that drones are best used for jobs that are dirty, dangerous and dull. [37]

State Farm has used drones for home roof and other inspections since 2017 and learning how they can best be used following natural disasters. The most prominent use for non-hobby drones is for research and development. Other uses for drones include filming events, like weddings or sports, industrial or utility use, aerial inspections, real estate and construction, and agriculture or crop inspection. [38]

Labor Force Participation

Many of the unemployed are concentrated in urban areas that have high unemployment rates with few employment opportunities. According to a review of federal data by Reuters, approximately a quarter of the nation's unemployed live in 50 urban counties in the U.S. Furthermore, a third of the nation's total unemployed reside in just 100 urban counties. Much of this unemployment is associated with cities having large minority populations such as St. Louis, Cleveland, and Baltimore. [39] The city of Chicago has a higher unemployment rate than the surrounding metropolitan area.

Researchers at the University of California, Davis have demonstrated that workers in geographic areas that had lower wages, lower levels of educational attainment, less patents per capita and higher unemployment rates around 1990 were less likely to move. One reason is that areas with higher economic growth tend to have higher living costs associated with them, and maybe these workers cannot afford to move to the locations of higher growth. [40]

Some economists and policymakers believe that these areas need to be addressed through "place-based" policies. A section of the bipartisan Tax Cuts and Jobs Act of 2017 includes an Opportunity Zone program intended to reduce the cost of investing in disadvantaged neighborhoods. This program uses the federal tax code to change incentives for investing in communities that are associated with the "cycle of poverty". The changes include a measure granting capital gains waivers for those who invest in distressed areas. [41] [42]

The program targets investors who have made large returns in markets such as stock and real estate, who would have to pay large capital gains taxes on their earnings if they were to cash out. It allows these same investors to move their money into investments in designated distressed neighborhoods while deferring taxes on their investment until the 2026 tax year. The tax owed on the original gain would be cut by 15 percent after the seven-year period, and any gain on the new investment is tax-free if the investment is held for at least 10 years. [43]

Each state can designate up to 25 percent of its eligible Census tracts to be Opportunity Zones. A tract qualifies if the poverty rate is at least 20 percent and the median household income does not exceed 80 percent of the greater of metropolitan or state median household income. [44]

One site being targeted as an Opportunity Zone in Chicago is the Michael Reese Hospital site south of McCormick Place. Other Chicago sites of interest include the 440-acre South Works steel mill site along Chicago's south lakefront. Small data centers are being planned for Chicago neighborhoods to fill gaps in the data network. These sites are from a list of 135 sites on Chicago's south and west sides. [45]

The earliest impacts of Opportunity Zones are likely to be in areas that were already in the path of progress. The program could help push new projects farther into economically challenged areas. The goal of the Opportunity Zones could align well with the vision of Chicago's newly elected mayor. She has emphasized the need to spread jobs and prosperity into the depressed neighborhoods that Opportunity Zones are designed to lift. [46]

Rural areas in the Midwest have a smaller prime-age labor force than they once had as some in this age group have transitioned to mid-sized or larger communities with better job opportunities. Many young people that leave after high school for college or military service do not return to the area where they were raised because of a lack of economic opportunity. Employers in those rural areas then face an absence of available workers. [47]

Some workers remain not working because they do not live close to the jobs they are qualified to do. Some central urban areas have a large supply of low-wage jobs but the housing in these same areas is unaffordable. Some cities are working to provide affordable housing for low-income workers while others are expanding public transportation opportunities to help people get to the jobs. [48]

The Federal Reserve Bank of Kansas City produced a report showing that many have left the labor force because of job polarization. This is a decline in work for people of middle-skill level since these jobs tend to be more procedural making them easier to automate. The result is more jobs are available at the lower- and higher-skilled levels than at the middle-skill level. An estimated 1.9 million prime-age males lost employment for that reason and are less likely to return to the labor force for that reason. [49]

The Organisation for Economic and Co-Operation and Development (OECD) found that opioid prescription rates tend to be higher in areas where labor force participation rates are lower. This same report shows that the opioid prescription rate per capita is significantly higher in the U.S. than in other OECD countries. People who are prescribed opioids are more likely to be addicted and less likely to be labor force participants. [50]

Recent data reports from the Bureau of Labor Statistics have shown job openings nationwide have exceeded the number of unemployed. This situation has led to upward pressure on wages and employers are trying to provide side benefits that encourage their workers to stay with them. [51]

Employers are also more willing than ever to consider portions of the labor pool that have not received full consideration in the past. For instance, the unemployment rate for people with disabilities fell to an annual average of 9.2% in 2017, down from 15.0% in 2011. This is the lowest it has been since the Bureau of Labor Statistics started tracking it (a decade earlier). Still, transportation remains an issue for many of the disabled population. [52]

Another group that employers are giving more consideration to are individuals with criminal records. The state of Illinois has changed licensing laws to make more than 100 occupations more accessible to people with criminal records. This includes real estate and accounting. Illinois has also expanded the types of convictions that can be sealed making them inaccessible to employers. Banks are now able to hire people convicted of minor crimes. The National Employment Law Project estimates that 42% of the people living in Illinois have criminal records or arrest histories. [53]

Although the number of females in the labor force is at an all-time high, the female labor force participation rate (16 and older) hit its high in 2000 (60.3%) but has declined (57.5%) as of 2018. The female labor force participation rate for the U.S. is behind many other developed countries in the world for reasons including parental leave and universal preschool policies. [54]

Federal Reserve Chairman Jerome Powell believes the U.S. workforce faces many challenges even as measures such as the unemployment rate tell us otherwise. Globalization and drug addiction have taken a toll on the labor market and education levels are climbing slowly. A National Bureau of Economic Research working paper explores the ties between education, globalization and declining opportunity. [55]

Americans used to pick up and move when their local labor markets soured -- but that's changed according to research by University of California, Davis' Katherine Eriksson, Katheryn Russ, Minfei Xu, and George Washington University's Jay Shambaugh. Worker mobility is much lower today, which probably intensified regional economic pain when factories moved jobs overseas in search of cheaper labor. [56]

"When the China shock hit the United States from 1990-2007, the areas most exposed had lower wages, lower levels of education, less innovative capacity as measured by patents per capita, and higher unemployment rates prior to the shock," the authors write. "People in these areas were less likely to move, and firms less likely to innovate or switch into different industries." [57]

First, less-educated workers are less likely to move, and trade-related economic disruptions hit places with low training levels. Second, high-growth places have high rent and land costs, so it might be too expensive to follow the better jobs. [58]

Besides these issues leaving people behind, the opioid epidemic has added fuel to the fire. Higher prescription rates have come alongside plunging prime-age employment, according to a paper released by the Cleveland Federal Reserve Bank in 2019. They find that for a 10 percent increase in the prescription rate, local employment rates fell by half a percentage point for men and 0.17 percentage point for women. [59]

Participation rates for the elderly have risen in part because some don't have the financial resources to retire. Higher health costs, inadequate retirement savings, and uncertainty about government safety nets have combined to raise the labor force participation rate of those age 65 and older above the 20 percent mark. This is about double the rate of 1985. [60]

Many older workers have college educations and make a good income. This group of older workers are more educated, wealthier individuals in better health who probably like to work. The older, less-educated, working class individuals are the ones who probably need to work the most. The typical worker in the bottom 50 percent of the income distribution has no retirement savings. Workers in the top 10 percent of the distribution have a median amount of $200,000 saved, which is still likely not enough. [61]

Income Inequality

Income inequality has increasingly become a bigger issue over the last several decades in the United States. The households at the very top of the income distribution have seen the amount of income as a proportional share of total household income rise, while the households lower on the income distribution have seen their proportional shares in decline. This has in turn had a negative impact on the middle class of the country as the gap between the haves and the have-nots continues to grow.

Data such as a low unemployment and inflation rate, that are regularly available, would seem to indicate a healthy, strong national economy. However, income inequality has continued to grow for decades. A Census study showed nearly half of young adults had 1) entered the labor force; 2) left their parent's home; 3) gotten married; and 4) had a child – by age 34 in 1976. This proportion has been reduced to 24 percent in 2016. These markers of adulthood have become more difficult to attain. [62]

Federal Reserve data shows that the proportion of family income from wages has declined from almost 70% to under 61% in the last 15 years, primarily due to earnings from investments by households at the higher income levels. Most Americans believed owning a home was good before the financial crisis as home prices always seemed to trend upward. Now the typical net worth of a middle-class family has fallen more than $40,000 below where it was in 2007. Actions taken by the Federal Reserve in response to the financial crisis have benefitted those who had investments in the stock market. [63]

The current level of income inequality in the U.S. has not been seen since before World War II. This has a negative impact on the potential for economic growth and thus employment opportunities. Children of families at lower incomes tend to obtain lower educational attainment levels. Therefore, this group is less likely to be as productive as they could be. People of lower educational attainment levels also have lower labor force participation rates. These outcomes are likely to continue for lower income individuals as post-secondary education becomes more expensive. [64]

A Social Work Research study showed that children growing up in poverty receive less education and grow up with fewer skills, making them less productive as workers when they become adults. This group is more likely to have health problems and be involved in crime. The study identified a cost to the nation of $1.03 trillion in 2015 due to childhood poverty. [65]

The Pell Institute for the Study of Opportunity in Higher Education finds that almost 90% of high school graduates from affluent families enroll in college compared to 60% of kids in the bottom 25% of the income distribution. College graduates earn more and have better health outcomes. A relationship known as the Great Gatsby Curve (GGC), which was introduced by economist Alan Krueger, states that children from poor families are less likely to improve their economic status as adults in countries where income inequality is higher. [66] [67]

Poor countries like Panama and Madagascar have high income inequality and kids are more likely to remain poor if they are born poor. Countries with lower income inequality such as Denmark and Finland are more likely to move further within the income distribution from their parents. The United States is a country at the higher end of income inequality and the GGC predicts lower upward income mobility for children in the lower income class. [68]

International Monetary Fund economist Shekhar Aiyar calls this a "talent misallocation." He says that this is not only unfair, but bad for economic growth of the country. He believes countries with high income inequality see slower economic progress. This belief has been reinforced by research conducted by Harvard economists Raj Chetty, Nathaniel Hendren, and others. [69]

An optimal amount of income inequality exists that allows for people to be in different income classes yet have a healthy economy. This was demonstrated by a 2015 World Bank research paper and a 2017 report produced by the International Monetary Fund. [70]

The less than optimal income inequality also has a negative impact on people at the top of the income distribution. People who are in the higher income class who own businesses have fewer customers that can afford their goods and services. A 2016 study from the London School of Economics shows that more property crime results in the richer neighborhood as income gaps in adjoining neighborhoods gets larger. [71]

Evidence of everyday people struggling financially is documented in a report by the Federal Reserve Bank of New York. The report states a record 7 million people in the United States are 90 days or more behind on their auto loan payments as of the end of 2018. Although the proportion of delinquent loans is lower (5.3% in 2010 to 4.5% in 2018), the number of people behind in loans is higher than the level reached during the financial crisis around the Great Recession. [72]

Most people consider their auto loan payment as critical as they need their vehicle to get to work. The report found that most of the people behind in their payments were under 30 years old who had low credit scores. [73]

Furthermore, an Urban Institute study produced in 2018 shows that about 40% of American families struggled to pay for at least one of the following: food, health care, housing, or utility bills. 30% of the households in the study with at least one working adult still struggled. [74]

Debt of all kinds is becoming a problem for households. Data from the Federal Reserve shows that the amount of debt Americans are carrying has increased by $1 trillion since 2013. The total amount of debt is nearly $1.2 trillion in auto loans; almost $1.6 trillion of student loans; and $1 trillion of consumer credit, primarily from credit cards. [75]

The Census Bureau has found that data supports the conclusion that the nation's cities with the strongest economies are losing people to other parts of the country. For example, more people left King County, Washington and Santa Clara County California than moved in from other parts of the country. In fact, eight of the largest ten metropolitan areas (includes many with strong economies) in the country had a net loss of people to other places. [76]

These areas tend to have wages well above the national median per occupation. But most of these high-paying jobs require a strong educational background. Jobs in these same geographic areas not requiring a high-level of educational attainment do not pay nearly as well. Since the associated costs of living in these areas is much higher, such as housing, lower income workers are better off moving to somewhere that is more affordable. [77]

The middle class has been shrinking while the global and national economies have experienced strong economic growth. Real incomes at the top of the distribution are hitting new highs while real incomes in the middle of the distribution have not grown. The rising costs of education, health care and housing (in some markets) has put even more pressure on the middle class. [78]

A report released in 2019 by the National College Access Network (NCAN) shows that more than half of the nation's most affordable colleges are still unaffordable for low-income students. Only 48% of the nation's community colleges are affordable for students who qualify for Pell grants (for low-income students) and only 27% of public four-year colleges are affordable. About 70% of community college students across the country who responded to a survey said they had financial issues related to food or housing in the previous year. [79]

Housing

The housing industry is considered an important sector of the U.S. economy because it includes the construction, banking, manufacturing, commodities, international trade, and transportation sectors of the economy. The Federal Reserve Bank keeps track of the housing industry as a key piece of making monetary policy decisions. The Fed announced in February 2019 that it would not raise interest rates any more in 2019 as a response to a weak housing industry. A robust housing industry is key to a strong national economy. [80]

The rate of increases in national housing prices has slowed down toward the end of 2018. This is a result of a decline in the number of existing homes for sale and because mortgage rates had trended up over the year. [81]

Although the national economy appears to be healthy on the surface with near 50-year low unemployment rates, a healthy GDP growth rate and inflation remaining low, the housing market continues to have issues. Construction of higher-priced houses and apartments has recovered strongly after the crash. However, construction of homes for lower- and middle-income housing has lagged demand. Builders constructed 50,000 new single-family homes with less than 1,400 square feet across the nation in 2018. The number of these new homes is typically closer to 200,000 in times when the overall economy is healthy. [82]

Today's housing crisis is about lack of affordable housing. A shortage of construction workers, truckers, and forklift operators has helped increase wages and prices. Building materials have increased in price and made it more difficult for builders to make a profit building homes of smaller size. The problem is even greater in high-growth states such as Texas, California, and Florida. [83]

The financial crisis may have changed the way people look at owning a home. It used to be that people counted on this as part of building wealth toward retirement. However, some people still are underwater (owe more than home's equity) with permanent damage done to their financial situation. Recent changes to the federal tax code for mortgage and property tax deductions may have also lowered incentives for owning a home. [84]

The number of middle-class Americans that find home ownership is not affordable is growing. The number of homes that are affordable for a household with a median income has gone down in many metropolitan areas. Many existing homeowners are content to stay in their current home, which reduces the inventory available on the market. [85]

According to a Pew Research Center study, rates of homeownership declined 8% from 2004 to 2016. The impact was greater for adults between 25 and 44 (declined 16%), and even greater for those under 35 (18%). As the population shifts from rural areas to urban the proportion of homeowners declines since real estate is more expensive in urban areas. Home prices in the largest 100 metropolitan areas have risen 53% during the 5-year period ending in mid-2018 according to Trulia, a real estate Web site. The proportional increase for rural areas during that time was 28%. [86]

RentCafe.com produced a study of pricing, demographic, and real estate data that showed renters earning at least $150,000 per year were the fastest-growing segment of renters. The number of renters in this group grew by 175% between 2007 and 2017 while the number of homeowners in the group grew by 67% in the same period. [87]

People living in the more expensive parts of the country, where higher incomes are prevalent, may have encountered higher price increases in housing in the last decade. This same group of people may be more likely to have student loan debt. This would imply some barrier exists to home ownership, but they also may enjoy the flexibility of renting. [88]

Homebuilder sentiment dropped to its lowest level in three years at the end of 2018 according to the National Association of Builders. Increases in mortgage rates and housing prices have hurt the market. Housing starts were down more than 10% year-to-year according to U.S. Department of Commerce data while building permits were down almost 2%. Builders face higher costs for land, labor and materials. The housing market has become undersupplied due to affordability challenges. [89] [90]

Employers have left California for years to move to states with lower taxes and less regulation. Now more employers are leaving California because they want to have affordable housing available for their workers. The median home price in California for 2018 was $570,010 according to the California Association of Realtors, which is more than twice as much as the national median price. The median price for the Bay area is around $1 million. The number of homes being built is not nearly enough to keep up with the number of homes needed to keep up with the expected population growth. [91]

The number of people approaching retirement age choosing to remain in the house where they raised a family is growing. Many older Americans are still downsizing to smaller houses, but they are doing so later in life. This has contributed to a housing shortage across the country. [92]

The people in this age group (54-73) are working longer than ever before and putting off retirement. Some still have adult children living with them. They are staying in the labor force because they are healthier and want to accumulate more financial resources before they retire. Many have paid off their mortgages and are comfortable with their housing situation. [93]

Rural

The Missouri Farm Bureau Federation cited the trade war as a major factor contributing to farmers' mental health problems. A national survey sponsored by the American Farm Bureau showed 91 percent of respondents cited financial trauma as affecting their mental health. Most rural adults have either sought mental-health care or have a family member who did. China's tariffs on almost all U.S. agricultural exports has seriously hurt farmers by depressing commodity prices even more. [94]

Metropolitan areas are defined as counties with cities of at least 50,000 in population as well as the counties surrounding that are economically dependent on them. They make up 36% of all counties. Between 2008 and 2017, they accounted for almost 99% of all population and employment growth. More than 71% of the nation's metropolitan counties grew during this period while more than half of the non-metropolitan counties remained the same size or shrank. [95] In Illinois, 22% of metropolitan counties grew from 2010 to 2018. Only 1.5% of non-metropolitan counties grew during the same period.

Viewing the data from a regional perspective shows that the West and South combined have 72% of the total employment gain for the metropolitan counties, and 82% of the total population gain. The Midwest saw a loss in population of 61% of its micropolitan areas (anchored by cities between 10,000 and 50,000) and 81% of its rural counties. Micropolitan counties tend to have rural counties nearby that depend on them so if they are struggling the whole market area will likely be hurt. [96]

Rural areas are now populated with individuals who tend to be older, poorer and sicker than urban areas. They also tend to have more challenges accessing health care and other services. About 4 in 10 rural adults have struggled to afford medical bills, housing or food in recent years, according to a poll conducted by Harvard's T.H. Chan School of Public Health. [97]

About a quarter of rural adults have skipped health care at some time because they could not afford it, or they did not have access to it. Even rural adults with health insurance sometimes go without care. Recent hospital closures in rural areas make access even more difficult as in most cases health care providers are too far away. [98]

Other issues impacting rural Americans include housing conditions that might affect a family's safety such as pests and bugs, drinking water safety, and problems with electrical and sewage service. A lack of Internet access and overall financial insecurity impact a considerable share of families. [99]

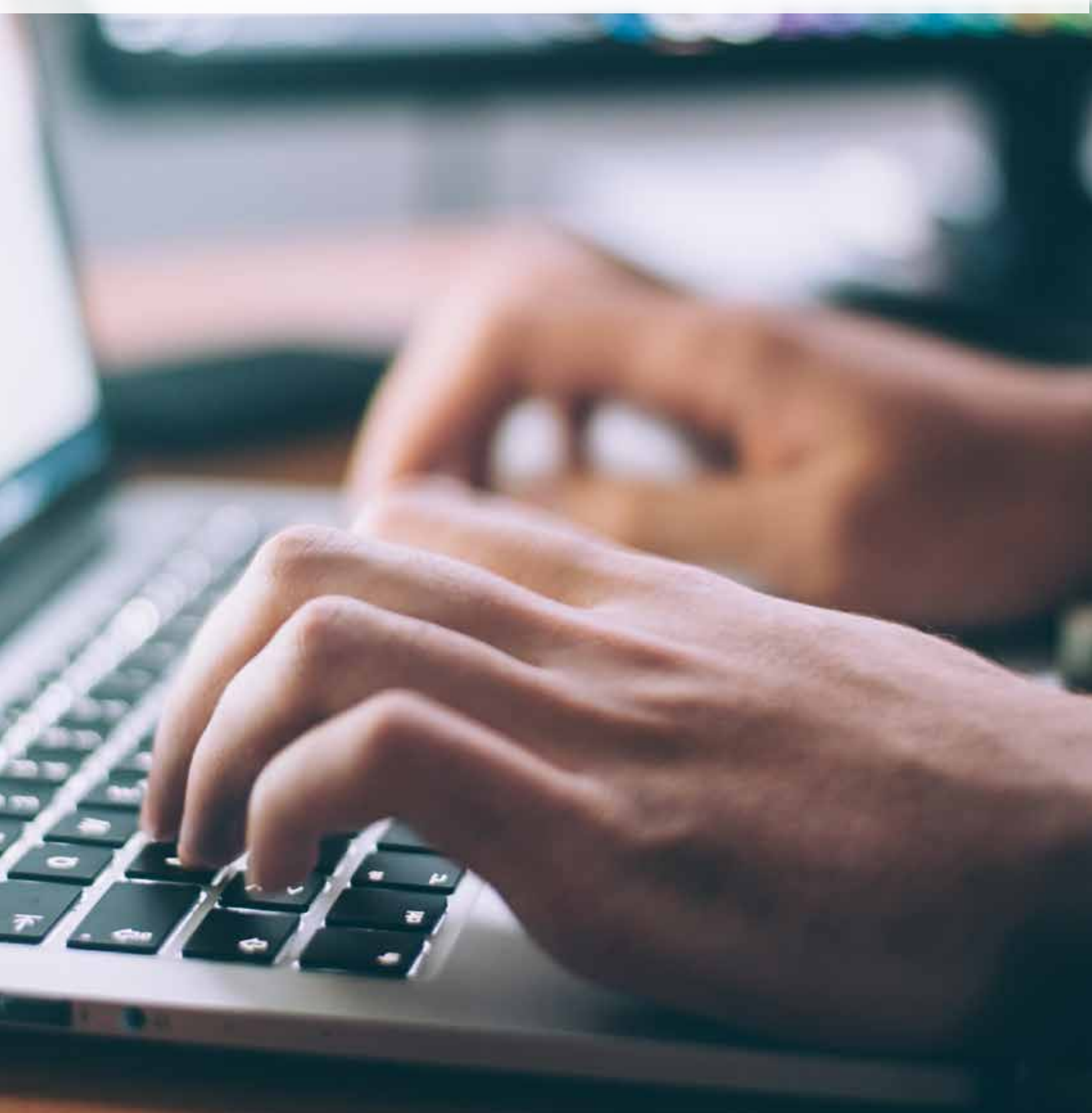
Rust Belt

The recovery of the U.S. economy has benefited coastal cities more than the rest of the country. Much attention has been given on how to aid economic growth in the middle of the country. A new report from Brookings says policymakers interested in the revitalization of this part of the country should focus on the region's older industrial cities, including both large urban areas (i.e. Detroit; Pittsburgh; and Cleveland) and smaller communities (i.e. Albany, GA; Janesville, WI; and Dubuque, IA). [100]

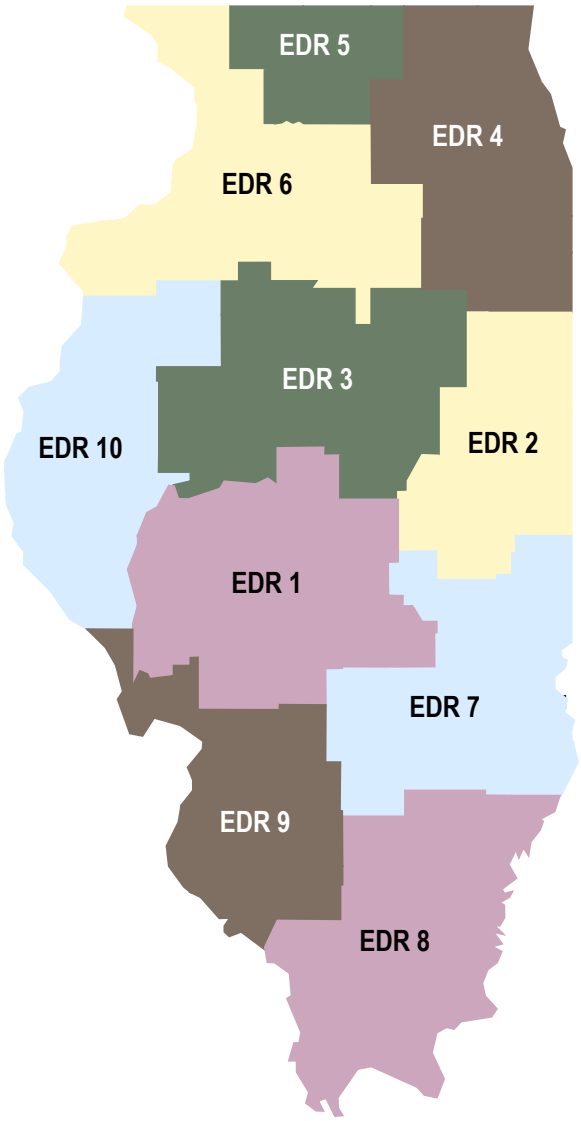
These areas were once known for being key parts of the manufacturing economy but have had some struggles since. Although the tech industry dominates economic growth currently and has tended to be concentrated in the largest metropolitan areas in the U.S., older industrial cities still contain one-eighth of the country's population, jobs and output. [101]

Population estimates for 2018 released by the Census Bureau show that the city of Chicago has stabilized in population, while its metropolitan area lost population for the fourth year in a row. Experts at the Center for Budget and Tax Accountability believe that the city's population of higher-skilled people is growing while the less-educated and poorer residents are moving away. Chicago was once a city that had manufacturing plants that attracted low-skilled workers to the area, but that is no longer the case. [102]

Data Analysis



Illinois EDRs and their Counties



EDR 1 - Central: Cass, Christian, Greene, Logan, Macon, Macoupin, Menard, Montgomery, Morgan, Sangamon, Scott, Shelby

EDR 2 - East Central: Champaign, Douglas, Ford, Iroquois, Piatt, Vermilion

EDR 3 - North Central: DeWitt, Fulton, Livingston, McLean, Marshall, Mason, Peoria, Stark, Tazewell, Woodford

EDR 4 - Northeast: Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, Will

EDR 5 - Northern Stateline: Boone, Ogle, Stephenson, Winnebago

EDR 6 - Northwest: Bureau, Carroll, Henry, Jo Daviess, LaSalle, Lee, Mercer, Putnam, Rock Island, Whiteside

EDR 7 - Southeastern: Clark, Clay, Coles, Crawford, Cumberland, Edgar, Effingham, Fayette, Jasper, Lawrence, Marion, Moultrie, Richland

EDR 8 - Southern: Alexander, Edwards, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Massac, Perry, Pope, Pulaski, Saline, Union, Wabash, Wayne, White, Williamson

EDR 9 - Southwestern: Bond, Calhoun, Clinton, Jersey, Madison, Monroe, Randolph, St. Clair, Washington

EDR 10 - West Central: Adams,Brown, Hancock, Henderson, Knox, McDonough, Pike, Schuyler, Warren

Exhibit 1. Total Population, by Geographic Region [U.S., Regions of U.S., Larger States including Illinois, EDRs 1-10]

	2010	2018	2010-2018 DIF	2010-2018 PDIF
UNITED STATES	**309,326,085**	**327,167,434**	**17,841,349**	**5.8%**
REGION of U.S.				
Northeast	55,380,645	56,111,079	730,434	1.3%
Midwest	66,974,749	68,308,744	1,333,995	2.0%
South	114,867,066	124,753,948	9,886,882	8.6%
West	72,103,625	77,993,663	5,890,038	8.2%
LARGEST STATES				
California	37,320,903	39,557,045	2,236,142	6.0%
Texas	25,242,679	28,701,845	3,459,166	13.7%
Florida	18,845,785	21,299,325	2,453,540	13.0%
New York	19,400,080	19,542,209	142,129	0.7%
Pennsylvania	12,711,158	12,807,060	95,902	0.8%
Illinois	12,840,762	12,741,080	-99,682	-0.8%
ILLINOIS EDR				
1 - Central	554,907	533,795	-21,112	-3.8%
2 - East Central	363,653	363,532	-121	0.0%
3 - North Central	655,957	641,140	-14,817	-2.3%
4 - Northeast	8,709,505	8,738,064	28,559	0.3%
5 - Northern Stateline	450,221	433,334	-16,887	-3.8%
6 - Northwest	501,760	481,858	-19,902	-4.0%
7 - Southeastern	286,839	275,809	-11,030	-3.8%
8 - Southern	385,665	370,257	-15,408	-4.0%
9 - Southwestern	704,553	686,874	-17,679	-2.5%
10 - West Central	227,702	216,417	-11,285	-5.0%

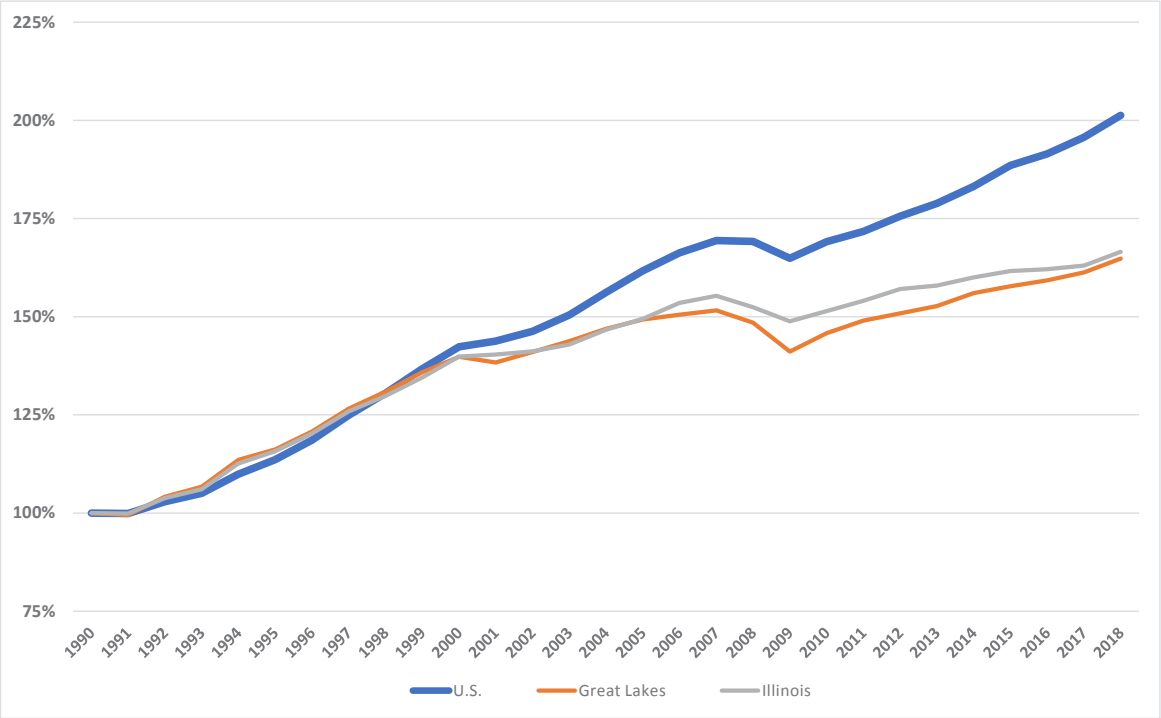
Data Source: U.S. Census Bureau (July 2018 Data)

Midwest Region = Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

Population data shown in Exhibit 1 for both 2010 and 2018 shows that although the population for the U.S. has continued to grow (+5.8%), Illinois' population has fallen (-0.8%). The Midwest Region had a small amount of population growth (+2.0%), which was slightly better than the 1.3% growth seen in the Northeast Region of the U.S. Both regions paled in comparison to the West (+8.2%) and the South (+8.6%). Population changes for the six largest states in the nation are also included. Illinois fell slightly behind Pennsylvania in 2017 in the rankings to become the sixth largest state in the nation. The largest three states all had strong growth from 2010 to 2018 with California (+6.0%), Texas (+13.7%), and Florida (+13.0%).

The Northeast Region (EDR 4) was the only region in Illinois that grew in population (+0.3%) while the East Central Region (EDR 2) remained flat (0.0%). The North Central Region (EDR 3) followed with a decline of 14,817 (-2.3%) with the rest of the EDRs having even larger percentage losses up to the West Central Region's (EDR 10) population loss of 5.0%.

Exhibit 2. Gross Domestic Product Index (1990 = 100.0%), by Geographic Region [U.S., Great Lakes Region, Illinois]



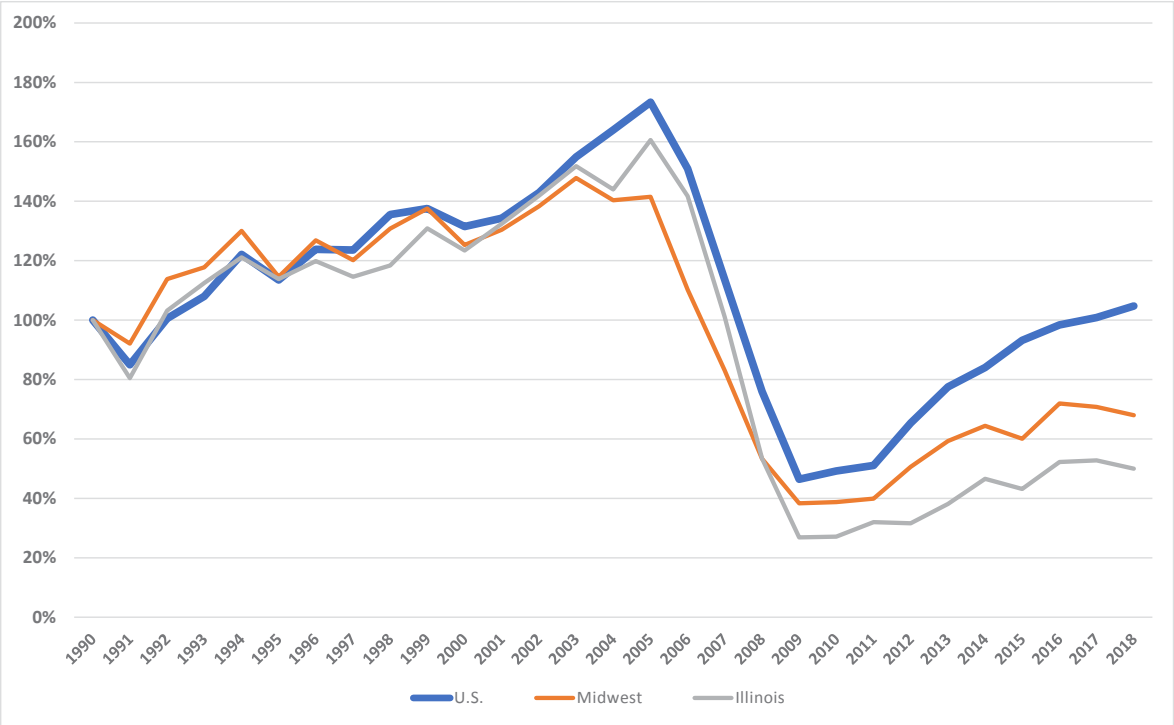
Data Source: 2012 Chained M$s (All Industry), U.S. Department of Commerce / Bureau of Economic Analysis / Haver Analytics

Great Lakes Region = Illinois, Indiana, Michigan, Ohio, Wisconsin

Exhibit 2 compares the path of GDP from 1990 to 2018 for the U.S., the Great Lakes region, and Illinois using the 1990 data values for each as a reference point for the index value. The paths of the indices show that the three geographies grew at similar rates until about the turn of the century. National GDP rose faster than the other two geographic regions after 2000. GDP for Illinois started to rise faster than the Great Lakes Region around 2005 but the gap has closed, and they are almost the same in 2018.

The nation's GDP has risen faster than the GDP for the Great Lakes Region and Illinois mainly because of differences in population growth, which lead to greater demand at the national level than for the five-state region.

Exhibit 3. Housing Starts Index (1990 = 100.0%), by Geographic Region [U.S., Midwest Region, Illinois]



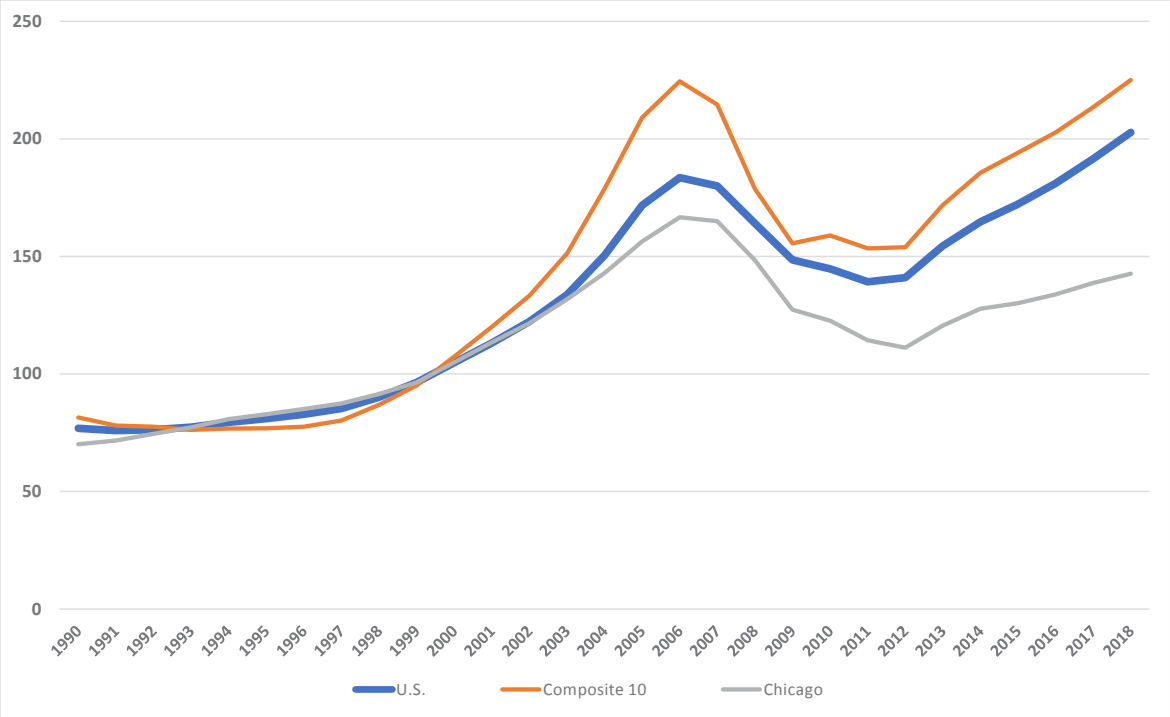
Data Source: U.S. Census Bureau / Haver Analytics & Bank of Toyko-Mitsubishi UFJ / Haver Analytics

Midwest Region = Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

Exhibit 3 compares the path of housing starts from 1990 to 2018 for the U.S., the Midwest region, and Illinois. The trajectory for all three geographic regions follows the same cyclic structure. The index of housing starts for the U.S. remains as an upper boundary for the three from about 1995 going forward. It clearly pulls away in the early-2000s and then after the recession in 2009. The index for the Midwest region stays above Illinois from about the time of the Great Recession moving forward.

Housing starts are clearly stronger for the nation than they are for the Midwest Region and Illinois. The primary reason for this is because population growth is stronger for the U.S. than it is for the Midwest Region including Illinois. More people moving to a geographic region creates more demand for housing, which leads to more housing starts. Housing starts for Illinois lag the Midwest Region like how the state's population lags the region's population.

Exhibit 4. Home Price Index (January 2000 = 100) [U.S., Composite 10, Chicago]



Data Source: S&P CoreLogic Case-Shiller Home Price Index / Haver Analytics

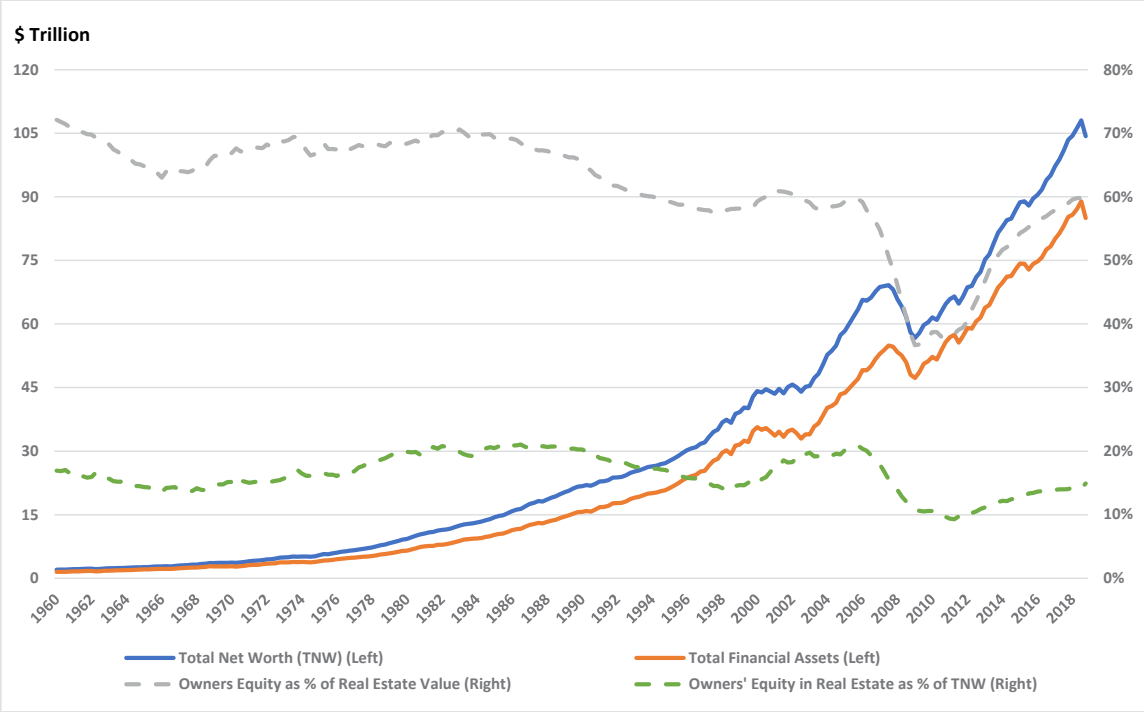
MSAs included in Composite 10: Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, Washington DC

Exhibit 4 is a chart of home price indices for the U.S., the Case-Shiller Composite 10, and the Chicago index by itself. The Composite 10 is a composite index of the home price indexes for ten major Metropolitan Statistical Areas (MSAs) in the U.S. The home price index for the Composite 10 started moving above the U.S. in 2000, while the index for Chicago fell below the U.S. value in 2004.

All three indices peaked in value in 2006 at the time of the housing bust, then started declining rapidly. However, the Composite 10 index remained above the U.S. index, which stayed above the Chicago index. The U.S. and Composite 10 pricing indices bottomed out in 2011 while the Chicago index hit its bottom in 2012. The three have trended upwards since then. However, the data show that the Chicago price index is not moving upward at the same rate as the indices for the U.S. and the Composite 10.

Data from the National Association of Realtors for 2018 shows that the median price for the Chicago-Naperville-Elgin IL-IN-WI MSA ($259,400) is below the national median price ($261,600) for single-family homes. Median prices for other MSAs that have at least a portion of their area in Illinois are well below the Chicago MSA home price.

Exhibit 5. Total Net Worth, Total Financial Assets, Owners' Equity as % of Real Estate Value (Households), and Owners' Equity as % of Total Net Worth (Households), for the United States



Data Source: Federal Reserve Board / Federal Reserve Bank of St. Louis

Exhibit 5 shows national data with Total Net Worth (TNW) and Total Financial Assets (TFA) for American households in trillions of dollars (measured on the left axis) along with Owners' Equity as % of Real Estate Value (for households) and Owners' Equity in Real Estate as % of TNW (for households), both measured in percent via the right axis.

Owners' Equity as % of Real Estate Value stayed above 65% for almost the entire period between 1960 and 1990. It then started trending downward and reached 60% about 1994, then remained about this proportion until the time of the housing bust in 2006. It then fell as low as 36.7% in 2009. After the recession was over, it started climbing back up around 2012 and is now back around 60%.

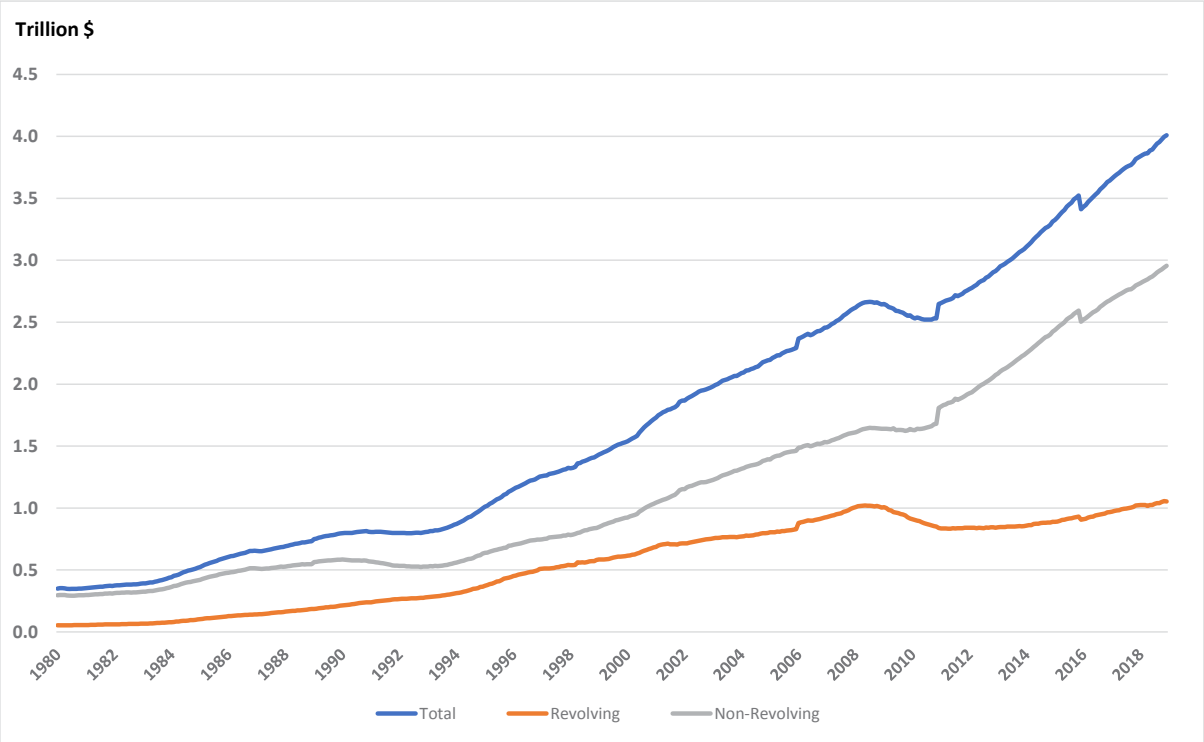
The Owners' Equity in Real Estate as % of TNW cycled between 14% and 21% for almost the entire period from 1960 through 2006. It then fell downward following the housing bust going below 10% for a few quarters around 2011-2012. The proportion has now recovered back to around 15%.

TNW and TFA have steadily grown since 1960 with some downward bumps around recent recessions in 2000 and 2007-09.

As TFA has grown and driven the growth of TNW, Owners' Equity as % of Real Estate Value has at best remained equivalent to where it was prior to the Great Recession. Meanwhile, the Owners' Equity in Real Estate as % of TNW has trended downward meaning equity in real estate has become a smaller component of a household's total financial assets compared to before the recession.

This chart demonstrates that even as total net worth and total financial assets (total dollar value for all households) continue to grow at a high rate; the proportion of home equity the average household has as a percentage of real estate value has at best remained the same; and the proportion of home equity the average household has a percentage of total net worth has fallen. So, home ownership has become a less important component of a household's net worth and households are not making headway in paying down their outstanding mortgages.

Exhibit 6. Consumer Credit Outstanding, for the United States



Data Source: Federal Reserve Board / Haver Analytics

Exhibit 6 shows total consumer credit outstanding broken out by revolving credit (includes credit cards) and non-revolving credit (includes student loans, auto loans, business loans, home loans).

Revolving credit has trended steadily upward since 1980 although you can see a bump around the Great Recession where the amount of debt decreased as it was paid down. It has now started to trend upward again. Non-revolving credit started with a slightly

positive slope until about 1993, then increased in slope until about 2010, when it increased in slope again until the current date.

This shows that even though credit card debt remains a serious problem, the bigger problem is with debt tied to student loans, auto loans, and other non-revolving credit loans. An economic recession may make a serious situation even worse for households holding this debt.

Exhibit 7. Measures of Income Dispersion, for the United States

Household Income Ratios of Selected Percentiles							
	1967	1977	1987	1997	2007	2017	% Change 1967-2017
90th to 10th	9.23	8.74	10.23	10.60	11.18	12.59	36.4%
95th to 20th	6.33	6.63	7.49	8.22	8.72	9.62	52.0%
95th to 50th	2.66	2.80	3.11	3.42	3.52	3.86	45.1%
Shares of Household Income of Quintiles							
	1967	1977	1987	1997	2007	2017	% Change 1967-2017
Lowest Quintile	4.0	4.2	3.8	3.6	3.4	3.1	-22.5%
Second Quintile	10.8	10.2	9.6	8.9	8.7	8.2	-24.1%
Third Quintile	17.3	16.9	16.1	15.0	14.8	14.3	-17.3%
Fourth Quintile	24.2	24.7	24.3	23.2	23.4	23.0	-5.0%
Highest Quintile	43.6	44.0	46.2	49.4	49.7	51.5	18.1%
TOP 5 PERCENT	17.2	16.8	18.2	21.7	21.2	22.3	29.7%
Gini Index of Income Inequality							
	1967	1977	1987	1997	2007	2017	% Change 1967-2017
Index	0.397	0.402	0.426	0.459	0.463	0.482	21.4%

Data Source: U.S. Census Bureau, Current Population Survey, 1968 to 2018 Annual Social and Economic Supplements

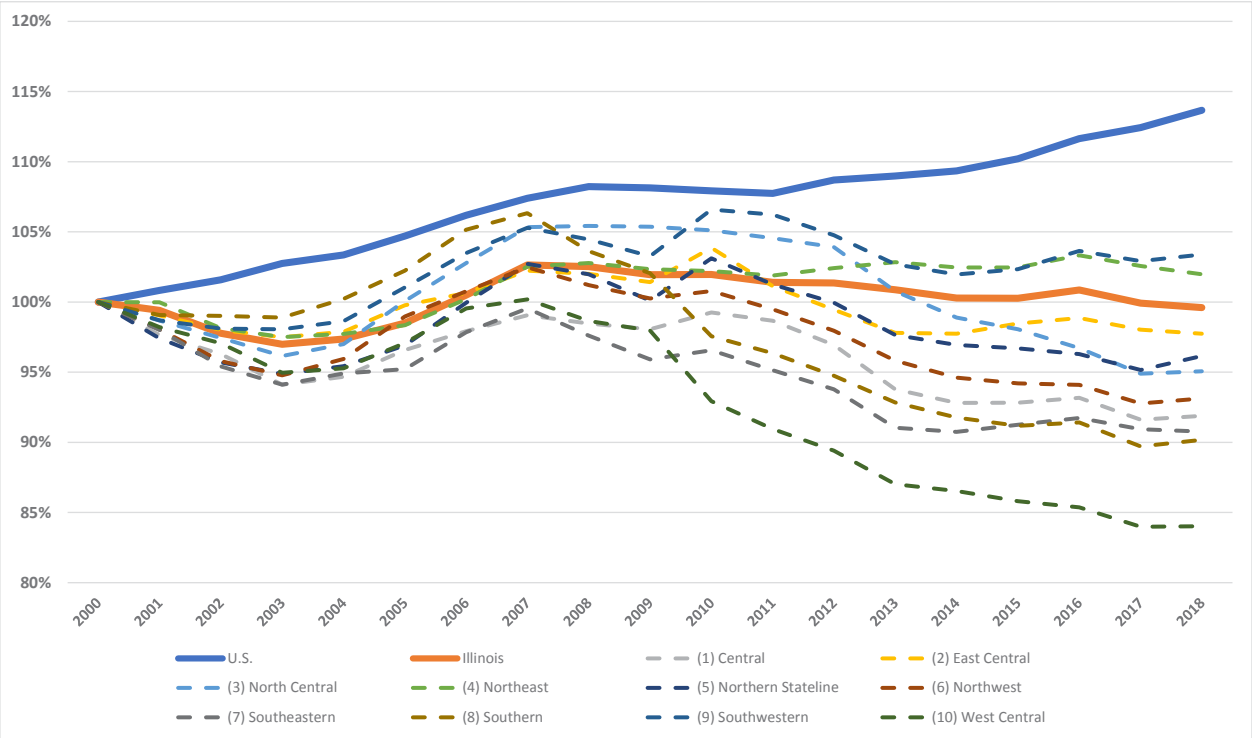
Exhibit 7 provides measures of national income dispersion at 10-year intervals for the time span from 1967 to 2017.

The first set of data shows the ratios of national household incomes for three different pairs of percentiles in the income distribution. The ratio of the 90th to 10th percentile has grown from 9.23 in 1967 to 12.59 in 2017 (an increase of 36.4%). The ratio of the 95th to 20th percentile has grown from 6.33 in 1967 to 9.62 in 2017 (an increase of 52.0%). The ratio of the 95th to 50th percentile has grown from 2.66 in 1967 to 3.86 in 2017 (an increase of 45.1%). This demonstrates convincingly that the upper levels of household income have risen faster than the lower levels of household income as well as the median level of income.

The second set of data shows the shares of household income by quintile in the national income distribution. The proportion of total household income for the lowest quintile of the national income distribution has fallen 22.5% from 1967 to 2017. The proportion of total household income has fallen 24.1% for the second quintile; fallen 17.3% for the third quintile; fallen 5.0% for the fourth quintile; and increased 18.1% for the highest quintile. Finally, the proportional share of total household income for the top 5% of the national income distribution has risen 29.7% from 1967 to 2017. This demonstrates that the amount of income going to the households at the very top of the distribution is increasing at the expense of the households in the rest of the distribution.

The third set of data shows the Gini index coefficient of income inequality. This data shows that there has been an increase of 21.4% in income inequality based on the Gini index from 1967 (0.397) to 2017 (0.482). A Gini index of 0.0 would represent a distribution where all incomes were equal.

Exhibit 8. Labor Force Size Index (2000 = 100.0%)



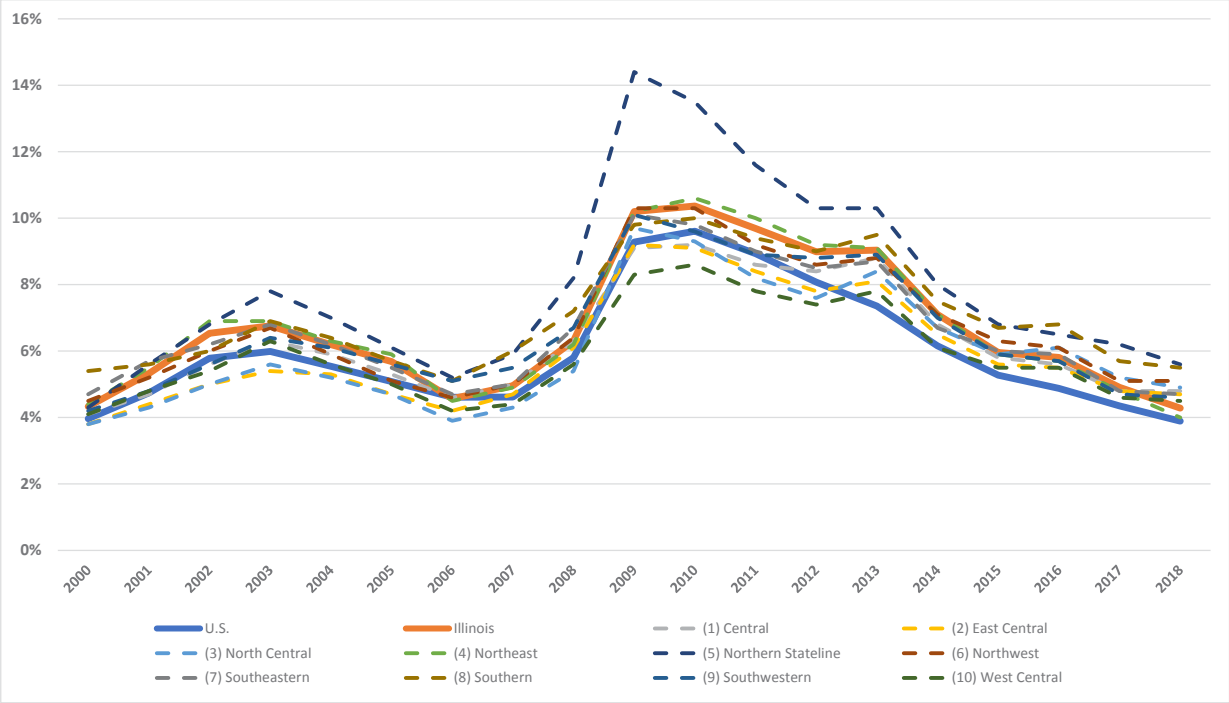
Data Source: (Annual Average data) Bureau of Labor Statistics (BLS) Current Population Survey (CPS) [U.S. Data) and Illinois Department of Employment Security (IDES) Local Area Unemployment Statistics (LAUS) for Illinois and sub-state data

Exhibit 8 compares indices for the size of the labor force for the U.S., Illinois, and the ten Illinois EDRs. Each index uses the size of the labor force in the year 2000 as its

base index value of 100.0%. The graph demonstrates that the labor force for the U.S. has grown faster since 2000 than for Illinois or any of its EDRs. Only the two largest regions in Illinois, the Northeast region (EDR 4) and the Southwestern region (EDR 9) have labor forces that have grown since 2000. However, the size of EDR 9 appears to have dropped significantly since 2010 after increasing between 2000 and 2010. The index for Illinois is the weighted average of the ten EDRs and is just below the top two having fallen below 100.0% around 2017. The index for the West Central region (EDR 10) has fallen below 85% and is more than 5% below the Southeastern region (EDR 7) and the Southern region (EDR 8).

The size of the labor force is highly dependent on the population of a geographic region. So, these results are not unexpected. The decline in the labor force indices for the rural EDRs (Southeastern, Southern, and West Central) is concerning since many individuals in their prime-age work years (25-54) are perceived to have left rural areas for other regions with better economic opportunities.

Exhibit 9. Unemployment Rates



Data Sources: (Annual Average data) Bureau of Labor Statistics (BLS) Current Population Survey (CPS) [U.S. Data) and Illinois Department of Employment Security (IDES) Local Area Unemployment Statistics (LAUS) for Illinois and sub-state data

The annual average unemployment rates in Exhibit 9 for the U.S., Illinois, and its EDRs follow a similar cyclic pattern from 2001 to 2018. The U.S. unemployment rate data series is near the lower bound for almost the entire time interval, staying below the rate for Illinois almost the entire time. The Northern Stateline Region (EDR 5) did reach a

higher peak for unemployment rate than the other geographic regions around the time of the Great Recession [December 2007 - June 2009].

Exhibit 10. Labor Force Participation Rates (LFPRs) [16 and Older; 16-19; 25-54; 65 and Older]

AGE GROUP	U.S.	Illinois	EDR 1	EDR 2	EDR 3	EDR 4
16 and older	63.4%	65.3%	61.2%	61.5%	63.5%	67.2%
16 - 19	37.7%	39.3%	43.1%	32.2%	42.5%	37.5%
25-54	81.7%	83.6%	81.5%	83.3%	83.6%	84.4%
65 and older	17.5%	17.6%	15.3%	18.6%	15.5%	18.8%
AGE GROUP	**EDR 5**	**EDR 6**	**EDR 7**	**EDR 8**	**EDR 9**	**EDR 10**
16 and older	64.6%	61.9%	60.2%	54.9%	62.5%	58.5%
16 - 19	48.5%	51.8%	49.2%	37.9%	43.8%	42.8%
25-54	84.2%	83.2%	79.9%	75.7%	81.6%	79.3%
65 and older	17.1%	15.4%	15.3%	12.6%	14.4%	15.8%

Data Source: American Community Survey (ACS) 5-Year estimates (2013-2017)
Table S2301

Exhibit 10 shows that the LFPR for the working-age population of 16 and older for the U.S. is 63.4%, lower than the rate for Illinois (65.3%). The table also shows that the LFPR for the 16-19, 25-54, and 65 and older age groups is higher for Illinois than the nation for all age groups. This is likely due in part to higher educational attainment of the population in Illinois relative to the nation.

The Northeast region (EDR 4) has the highest LFPR for the 16 and older, 25-54, and 65 and older age groups. It ranks as ninth highest of the EDRs (second lowest) for LFPR in the 16-19 age group. This is likely due in part to the large number of youths living in areas where jobs are not readily available. It could also be lower for this group since many are pursuing higher education instead of working.

The highest LFPRs for the 16-19 age group are the Northwest region (EDR 6) (51.8%), the Southeastern region (EDR 7) (49.2%), and the Northern Stateline region (EDR 5) (48.5%). All three of these regions are in the top half of EDRs that have the highest educational attainment of high school graduate (see Exhibit 11). These proportions could be higher since some in the age group may have left the region for educational opportunities.

Regions with high LFPRs in the prime-age labor force (25-54) besides EDR 4 are the Northern Stateline region (EDR 5) (84.2%) and the North Central region (EDR 3) (83.6%). The region with the second highest LFPR for the 65 and older age group is the East Central region (EDR 2) (18.6%). This could be a function of higher educated older people are more likely to work and EDR 2 is home to a large state university.

Exhibit 11. Proportions of Educational Attainment [25 and Older]

	U.S.	Illinois	EDR 1	EDR 2	EDR 3	EDR 4
Population - 25 years old and older	**216,271,644**	**8,666,079**	**378,086**	**228,007**	**433,834**	**5,903,258**
Less than HS Graduate	12.7%	11.4%	9.3%	8.2%	7.8%	12.2%
HS graduate (includes equiv.)	27.3%	26.3%	34.7%	30.1%	30.5%	23.3%
Some college or Associates degree	29.1%	28.8%	31.4%	30.5%	31.5%	26.7%
Bachelor's degree or Higher	30.9%	33.4%	24.6%	31.1%	30.2%	37.8%
	EDR 5	**EDR 6**	**EDR 7**	**EDR 8**	**EDR 9**	**EDR 10**
Population - 25 years old and older	**297,583**	**343,271**	**192,373**	**260,817**	**477,357**	**151,493**
Less than HS Graduate	12.0%	10.5%	11.6%	12.0%	8.9%	10.0%
HS graduate (includes equiv.)	33.1%	35.0%	35.4%	31.8%	31.2%	35.7%
Some college or Associates degree	33.3%	34.5%	34.6%	36.8%	34.8%	32.7%
Bachelor's degree or Higher	21.6%	20.0%	18.4%	19.4%	25.1%	21.6%

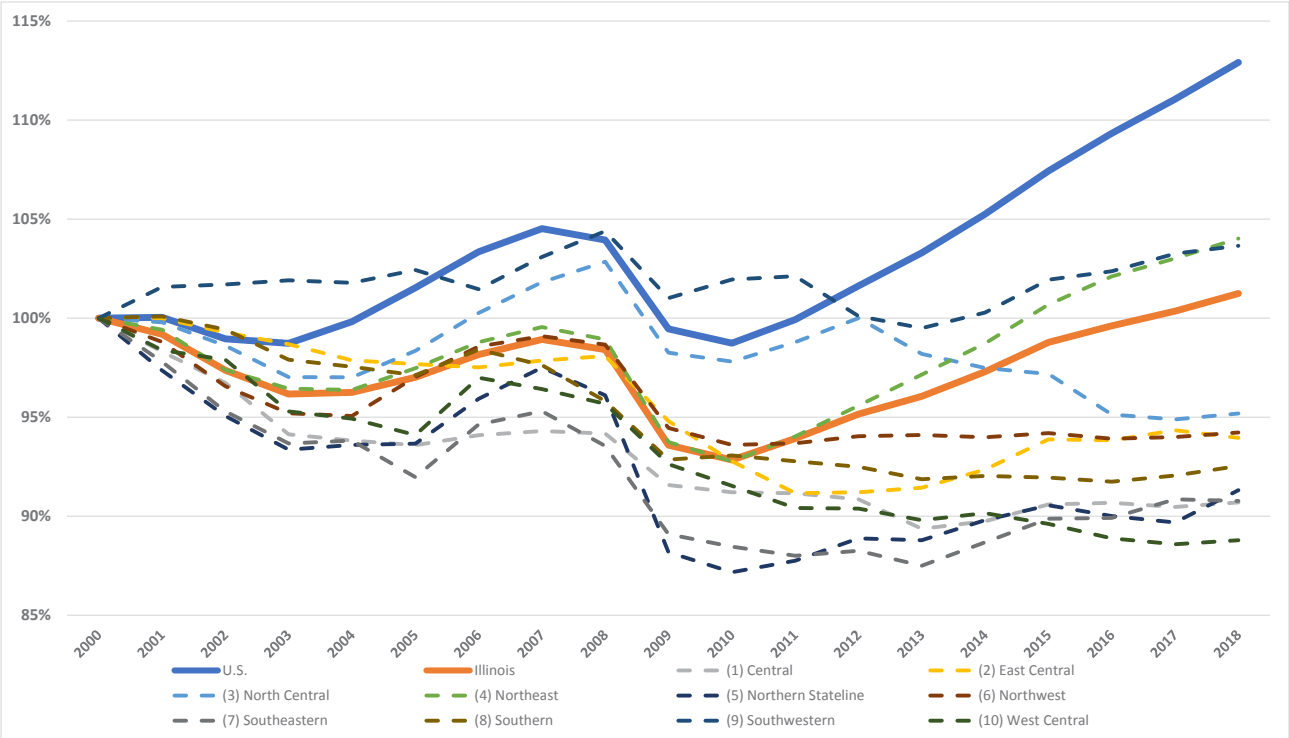
Data Source: American Community Survey (ACS) 5-Year estimates (2013-2017) Table S2301

Exhibit 11 shows the highest educational attainment, by proportion of the adult population. The table shows that Illinois has a better educated labor force than the nation. It has a lower proportion (11.4%) of its population (25 and older) that have not earned a high school diploma than the nation (12.7%). On the other end of the spectrum, Illinois has a higher proportion (33.4%) of its population with a Bachelor's degree or higher than the nation (30.9%) as a whole. The important observation regarding LFPR and unemployment percentage for all four of these geographic regions is that LFPR increases with greater educational attainment and the unemployment percentage decreases with greater educational attainment.

The highest proportion of population with a Bachelor's degree or higher is in the Northeast region (EDR 4), which also has the highest LFPR in the 25-54 age group among the EDRs. The Southern region (EDR 8) has the lowest LFPR in the prime-age labor force and has one of the lower proportions (19.4%) of population with a Bachelor's degree or higher. It should be noted that this region also includes a major state university.

The region with the next lowest LFPR among the prime-age labor force in Illinois is the West Central region (EDR 10) (79.3%). It has the highest proportion of population with highest educational attainment of high school graduate among adults with proportions in the middle for those with some college or an Associate's degree and Bachelor's degree or higher. This region is made up of mostly rural counties.

Exhibit 12. Nonfarm Employment Index (2000 = 100.0%)



Data Source: Current Employment Statistics (CES); Bureau of Labor Statistics and IDES

Exhibit 12 charts the trajectory of total nonfarm employment, by geographic region, using employment levels in 2000 as the base for the indices. Some similarity exists between this chart and Exhibit 8 (Labor Force Size Index), but some differences exist. This chart shows the trajectory for both the U.S. and Illinois with more of a positive slope since the Great Recession around 2010. That is a result of a higher proportion of the labor force finding employment (lower unemployment rates).

Illinois' labor force size index is just below 100% in 2018, but the nonfarm employment index has moved above 100%. This could be due to some combination of more people in the labor force working and some people in the labor force now working multiple jobs. The Northeast Region (EDR 4) and the Southwestern Region (EDR 9) have trajectories above Illinois in the years just prior to and including 2018, while all other EDRs have trajectories that finish below the statewide weighted average. The two regions that have positive employment growth since 2000 are anchored by the two largest metropolitan statistical areas in the state.

Definitions of Broad Industry Groupings (BIGs)

[All employers that have Ownership = Private are in GP, WCS, and BCS NAICS industries]

Goods Producing (GP) – Natural Resources and Mining; Construction, and Manufacturing

White Collar Services (WCS) – Information; Financial Activities; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Educational & Health Care Services

Blue Collar Services (BCS) – Utilities; Wholesale Trade; Retail Trade; Transportation & Warehousing; Administrative & Support & Waste Management; Arts, Entertainment & Recreation; Accommodation & Food Services; Other Services; Unclassified

Public – All employers with NAICS that have Ownership = Federal, State, and Local government]

Exhibit 13. QCEW Employment, by BIGs (2001-2017)

		Avgerage Annual Employment		Employment Diff	Employment PDiff	Employment as % of Statewide Total		Employment as % of Corr. Statewide Ind. Group Total	
		2001	2017	2001-17	2001-17	2001	2017	2001	2017
EDR 1	Goods Producing	43,503	33,549	-9,954	-22.9%	0.8%	0.6%	4.0%	4.1%
EDR 1	White Collar Services	61,383	63,627	2,244	3.7%	1.1%	1.1%	3.7%	3.5%
EDR 1	Blue Collar Services	83,579	81,752	-1,827	-2.2%	1.4%	1.4%	3.8%	3.4%
EDR 1	Public	90,379	67,335	-23,045	-25.5%	1.6%	1.2%	11.0%	8.5%
EDR 1	**Total**	**278,844**	**246,262**	**-32,582**	**-11.7%**	**4.8%**	**4.2%**	**4.8%**	**4.2%**
EDR 2	Goods Producing	29,650	21,583	-8,067	-27.2%	0.5%	0.4%	2.7%	2.7%
EDR 2	White Collar Services	32,052	33,166	1,114	3.5%	0.6%	0.6%	2.0%	1.8%
EDR 2	Blue Collar Services	51,713	51,069	-644	-1.2%	0.9%	0.9%	2.3%	2.1%
EDR 2	Public	33,355	35,099	1,744	5.2%	0.6%	0.6%	4.1%	4.4%
EDR 2	**Total**	**146,770**	**140,917**	**-5,853**	**-4.0%**	**2.5%**	**2.4%**	**2.5%**	**2.4%**
EDR 3	Goods Producing	58,624	40,560	-18,064	-30.8%	1.0%	0.7%	5.3%	5.0%
EDR 3	White Collar Services	87,872	95,017	7,145	8.1%	1.5%	1.6%	5.3%	5.2%
EDR 3	Blue Collar Services	106,939	106,525	-414	-0.4%	1.9%	1.8%	4.9%	4.5%
EDR 3	Public	40,413	39,499	-914	-2.3%	0.7%	0.7%	4.9%	5.0%
EDR 3	**Total**	**293,847**	**281,602**	**-12,246**	**-4.2%**	**5.1%**	**4.8%**	**5.1%**	**4.8%**
EDR 4	Goods Producing	735,653	532,809	-202,844	-27.6%	12.8%	9.1%	66.8%	65.6%
EDR 4	White Collar Services	1,250,198	1,418,893	168,694	13.5%	21.7%	24.4%	76.1%	77.4%
EDR 4	Blue Collar Services	1,603,394	1,783,599	180,205	11.2%	27.8%	30.6%	72.7%	74.7%
EDR 4	Public	487,578	490,911	3,333	0.7%	8.5%	8.4%	59.6%	62.0%
EDR 4	**Total**	**4,076,823**	**4,226,211**	**149,388**	**3.7%**	**70.7%**	**72.5%**	**70.7%**	**72.5%**
EDR 5	Goods Producing	59,710	46,088	-13,621	-22.8%	1.0%	0.8%	5.4%	5.7%
EDR 5	White Collar Services	40,322	40,690	368	0.9%	0.7%	0.7%	2.5%	2.2%
EDR 5	Blue Collar Services	69,082	70,208	1,126	1.6%	1.2%	1.2%	3.1%	2.9%
EDR 5	Public	21,153	20,798	-355	-1.7%	0.4%	0.4%	2.6%	2.6%
EDR 5	**Total**	**190,266**	**177,784**	**-12,482**	**-6.6%**	**3.3%**	**3.1%**	**3.3%**	**3.1%**
EDR 6	Goods Producing	47,912	38,980	-8,932	-18.6%	0.8%	0.7%	4.4%	4.8%
EDR 6	White Collar Services	42,779	43,459	680	1.6%	0.7%	0.7%	2.6%	2.4%
EDR 6	Blue Collar Services	77,772	74,785	-2,987	-3.8%	1.3%	1.3%	3.5%	3.1%
EDR 6	Public	35,635	34,998	-637	-1.8%	0.6%	0.6%	4.4%	4.4%
EDR 6	**Total**	**204,097**	**192,221**	**-11,875**	**-5.8%**	**3.5%**	**3.3%**	**3.5%**	**3.3%**
EDR 7	Goods Producing	30,059	27,111	-2,948	-9.8%	0.5%	0.5%	2.7%	3.3%
EDR 7	White Collar Services	26,565	26,794	229	0.9%	0.5%	0.5%	1.6%	1.5%
EDR 7	Blue Collar Services	38,480	37,909	-571	-1.5%	0.7%	0.7%	1.7%	1.6%
EDR 7	Public	19,273	17,154	-2,119	-11.0%	0.3%	0.3%	2.4%	2.2%
EDR 7	**Total**	**114,377**	**108,968**	**-5,408**	**-4.7%**	**2.0%**	**1.9%**	**2.0%**	**1.9%**
EDR 8	Goods Producing	25,841	20,982	-4,859	-18.8%	0.4%	0.4%	2.3%	2.6%
EDR 8	White Collar Services	27,481	31,062	3,581	13.0%	0.5%	0.5%	1.7%	1.7%
EDR 8	Blue Collar Services	46,671	44,241	-2,430	-5.2%	0.8%	0.8%	2.1%	1.9%
EDR 8	Public	31,869	28,619	-3,250	-10.2%	0.6%	0.5%	3.9%	3.6%
EDR 8	**Total**	**131,862**	**124,904**	**-6,958**	**-5.3%**	**2.3%**	**2.1%**	**2.3%**	**2.1%**
EDR 9	Goods Producing	49,385	36,136	-13,249	-26.8%	0.9%	0.6%	4.5%	4.5%
EDR 9	White Collar Services	53,835	58,736	4,901	9.1%	0.9%	1.0%	3.3%	3.2%
EDR 9	Blue Collar Services	91,300	105,936	14,637	16.0%	1.6%	1.8%	4.1%	4.4%
EDR 9	Public	41,557	42,578	1,021	2.5%	0.7%	0.7%	5.1%	5.4%
EDR 9	**Total**	**236,077**	**243,386**	**7,309**	**3.1%**	**4.1%**	**4.2%**	**4.1%**	**4.2%**
EDR 10	Goods Producing	20,130	14,141	-5,989	-29.8%	0.3%	0.2%	1.8%	1.7%
EDR 10	White Collar Services	20,892	21,398	506	2.4%	0.4%	0.4%	1.3%	1.2%
EDR 10	Blue Collar Services	35,074	32,481	-2,593	-7.4%	0.6%	0.6%	1.6%	1.4%
EDR 10	Public	16,792	15,377	-1,415	-8.4%	0.3%	0.3%	2.1%	1.9%
EDR 10	**Total**	**92,888**	**83,397**	**-9,491**	**-10.2%**	**1.6%**	**1.4%**	**1.6%**	**1.4%**
Statewide	Goods Producing	1,100,466	811,940	-288,526	-26.2%	19.1%	13.9%	100.0%	100.0%
Statewide	White Collar Services	1,643,379	1,832,842	189,463	11.5%	28.5%	31.5%	100.0%	100.0%
Statewide	Blue Collar Services	2,204,002	2,388,504	184,502	8.4%	38.2%	41.0%	100.0%	100.0%
Statewide	Public	818,004	792,367	-25,637	-3.1%	14.2%	13.6%	100.0%	100.0%
Statewide	**Total**	**5,765,851**	**5,825,652**	**59,801**	**1.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
						% of U.S. Total			
U.S.	Goods	24,865,272	21,211,110	-3,654,162	-14.7%	19.2%	14.7%		
U.S.	White Collar Services	34,708,207	44,303,218	9,595,011	27.6%	26.8%	30.8%		
U.S.	Blue Collar Services	49,731,326	56,872,236	7,140,910	14.4%	38.4%	39.5%		
U.S.	Public	20,330,998	21,473,291	1,142,293	5.6%	15.7%	14.9%		
U.S.	**Total**	**129,635,803**	**143,859,855**	**14,224,052**	**11.0%**	**100.0%**	**100.0%**		

Data Source: Quarterly Census of Employment and Wages (QCEW); Bureau of Labor Statistics and IDES

Note: Statewide is equal to the sum of EDRs 1 through 10 and omits employers with a county code of Unclassified

Exhibit 13 shows a comparison of percentage differences in employment from 2001 to 2017 (Annual average QCEW data). QCEW employment includes those employers that are covered by Unemployment Insurance tax laws, and so is sometimes referenced as "covered" employment.

TOTAL – National employment growth was higher (+11.0%) than for Illinois (+1.0%) and the Northeast Region (EDR 4) (+3.7%). Changes to the economies have been driven by a structural shift away from goods-producing and toward services-providing industries. Public sector employment has increased at the national level while it decreased for Illinois. This is likely driven by the large population gains for the nation relative to Illinois. Only two of Illinois' regions had gains for Total employment, the Northeast Region (EDR 4) (+3.7%) and the Southwest Region (EDR 9) (+3.1%). The rest of the regions had decreases for Total employment with the Central Region (EDR 1) losing 11.7% and the West Central Region (EDR 10) (-10.2%). The Central Region (EDR 1) had a large decline (-25.5%) in government employment. This could be due in part to a tendency for state government to code more employment in Sangamon County than reside there, and the large number of retirements that have occurred over the period. The West Central Region (EDR 10) had little gain in services-providing industries to make up for its loss in goods-producing.

GOODS – Employment was down for the U.S. (-14.7%), Illinois (-26.2%), and all regions in Illinois. Each geographic region needs employment increases in WCS and BCS to balance out losses in this sector. The smallest loss was for the Southeastern Region (EDR 7) (-9.8%). However, it also had the smallest growth in WCS and a large decrease in Public sector employment. The North Central Region (EDR 3) had a 30.8% decrease in GOODS.

WCS – The entire economy had a structural shift toward services with WCS tending to have the higher-paying jobs. The biggest impact was in larger urban areas and this was true in the Northeast Region (EDR 4) (13.5%). This helped drive the increase for the state. The Southern Region (EDR 8) also had a gain of 13.0%. All other sectors in the region had losses. The smallest gains were in the Northern Stateline Region (EDR 5) (+0.9%) and the Southeastern Region (EDR 7) (+0.9%).

BCS – The nation had a large increase in employment (+14.4%). The increase was not as large for the state (+8.4%). Three Illinois regions had increases, the Northeast Region (EDR 4) (+11.2%), the Southwestern Region (EDR 9) (+16.0%), and the Northern Stateline Region (EDR 5) (+1.6%), which had a small gain. The West Central Region (EDR 10) had the largest decrease (-7.4%).

PUBLIC – Employment grew for the nation (+5.6%) while Illinois had a loss (-3.1%). The East Central Region (EDR 2) had the biggest gain (+5.2%) likely because it is the home of the state's largest public university. The Northeast Region (EDR 4) (most populous region) also had a gain (+0.7%) as did the Southwestern Region (EDR 9) (+2.5%), the state's second most populous region.

Regarding the proportional share of a region's employment as a % of total employment for 2001 and 2017 (as seen in the two far-right columns of the data table):

The Northeast Region (EDR 4) rose from 70.7% to 72.5% of Illinois total employment from 2001 to 2017, while the Southwestern Region (EDR 9) increased from 4.1% to 4.2%. All other regions had a decline in their share of total statewide employment from 2001 to 2017.

The proportional share of GOODS employment to TOTAL employment for the U.S. declined from 19.2% in 2001 to 14.7% in 2017; the proportion of GOODS employment to TOTAL statewide employment fell from 19.1% to 13.9% for Illinois; and the proportion of GOODS employment for the region to TOTAL statewide employment declined from 12.8% to 9.1% for the Northeast Region (EDR 4). Proportions for all other regions fell or remained the same.

The proportional share of WCS employment to TOTAL employment for the U.S. rose from 26.8% to 30.8% from 2001 to 2017; the proportion of WCS employment to TOTAL statewide employment increased from 28.5% to 31.5% for Illinois; and the proportion of WCS employment for the region to TOTAL statewide employment increased from 21.7% to 24.4% for the Northeast Region (EDR 4).

The proportional share of BCS employment to TOTAL employment for the U.S. went up slightly from 38.4% to 39.5% from 2001 to 2017; the proportion of BCS employment to TOTAL statewide employment increased from 38.2% to 41.0% for Illinois; and the proportion of BCS employment for the region to TOTAL statewide employment rose from 27.8% to 30.6% for the Northeast Region (EDR 4).

The proportional share of PUBLIC employment to TOTAL employment for the U.S. fell from 15.7% to 14.9% from 2001 to 2017; the proportion of PUBLIC employment to TOTAL statewide employment fell from 14.2% to 13.6% for Illinois; and the proportion of PUBLIC employment for the region to TOTAL statewide employment fell from 8.5% to 8.4% for the Northeast Region (EDR 4).

The main points to be drawn from the QCEW employment analysis are 1) the Northeast Region (EDR 4) continues to increase its proportional share of total statewide employment; and 2) most of the regions of the rest of the state are not keeping up with growth in services-providing jobs to balance losses in goods-producing jobs.

Exhibit 14. QCEW Average Annual Wages (AAWs), by BIGs (2001-2017)

		Avgerage Annual Wages		Diff	PDiff	% Share of Total Wages	
		2001	2017	2001-2017	2001-2017	2001	2017
EDR 1	Goods Producing	$38,992	$61,580	$22,587	57.9%	18.8%	17.6%
EDR 1	White Collar Services	$32,570	$50,997	$18,427	56.6%	22.2%	27.6%
EDR 1	Blue Collar Services	$21,269	$30,180	$8,910	41.9%	19.7%	21.0%
EDR 1	Public	$39,210	$59,153	$19,943	50.9%	39.3%	33.9%
EDR 1	**Total**	**$32,337**	**$47,758**	**$15,421**	**47.7%**	**100.0%**	**100.0%**
EDR 2	Goods Producing	$34,651	$51,608	$16,957	48.9%	24.0%	18.1%
EDR 2	White Collar Services	$32,732	$54,069	$21,337	65.2%	24.6%	29.1%
EDR 2	Blue Collar Services	$18,689	$28,383	$9,694	51.9%	22.6%	23.5%
EDR 2	Public	$36,868	$51,581	$14,713	39.9%	28.8%	29.4%
EDR 2	**Total**	**$29,112**	**$43,764**	**$14,652**	**50.3%**	**100.0%**	**100.0%**
EDR 3	Goods Producing	$46,907	$78,473	$31,565	67.3%	28.4%	22.5%
EDR 3	White Collar Services	$39,061	$62,744	$23,683	60.6%	35.4%	42.1%
EDR 3	Blue Collar Services	$21,407	$31,266	$9,859	46.1%	23.6%	23.5%
EDR 3	Public	$30,087	$42,560	$12,473	41.5%	12.6%	11.9%
EDR 3	**Total**	**$32,967**	**$50,271**	**$17,303**	**52.5%**	**100.0%**	**100.0%**
EDR 4	Goods Producing	$47,143	$74,069	$26,926	57.1%	20.1%	15.1%
EDR 4	White Collar Services	$55,573	$82,339	$26,766	48.2%	40.2%	44.7%
EDR 4	Blue Collar Services	$30,556	$42,912	$12,356	40.4%	28.3%	29.3%
EDR 4	Public	$40,443	$57,653	$17,210	42.6%	11.4%	10.8%
EDR 4	**Total**	**$42,403**	**$61,789**	**$19,386**	**45.7%**	**100.0%**	**100.0%**
EDR 5	Goods Producing	$43,379	$61,365	$17,986	41.5%	42.7%	34.9%
EDR 5	White Collar Services	$33,893	$53,854	$19,961	58.9%	22.5%	27.0%
EDR 5	Blue Collar Services	$21,358	$31,530	$10,172	47.6%	24.3%	27.3%
EDR 5	Public	$29,975	$41,987	$12,012	40.1%	10.5%	10.8%
EDR 5	**Total**	**$31,883**	**$45,597**	**$13,714**	**43.0%**	**100.0%**	**100.0%**
EDR 6	Goods Producing	$37,002	$58,072	$21,070	56.9%	29.6%	25.3%
EDR 6	White Collar Services	$33,830	$57,738	$23,908	70.7%	24.2%	28.1%
EDR 6	Blue Collar Services	$21,593	$34,006	$12,413	57.5%	28.1%	28.4%
EDR 6	Public	$30,447	$46,423	$15,976	52.5%	18.1%	18.2%
EDR 6	**Total**	**$29,321**	**$46,512**	**$17,192**	**58.6%**	**100.0%**	**100.0%**
EDR 7	Goods Producing	$31,575	$48,565	$16,990	53.8%	33.4%	31.7%
EDR 7	White Collar Services	$26,026	$40,040	$14,014	53.8%	24.3%	25.8%
EDR 7	Blue Collar Services	$17,705	$28,338	$10,632	60.1%	24.0%	25.9%
EDR 7	Public	$26,952	$40,240	$13,288	49.3%	18.3%	16.6%
EDR 7	**Total**	**$24,841**	**$38,122**	**$13,280**	**53.5%**	**100.0%**	**100.0%**
EDR 8	Goods Producing	$33,233	$54,271	$21,038	63.3%	25.6%	23.2%
EDR 8	White Collar Services	$24,702	$42,425	$17,723	71.7%	20.3%	26.8%
EDR 8	Blue Collar Services	$18,176	$26,737	$8,561	47.1%	25.3%	24.1%
EDR 8	Public	$30,215	$44,333	$14,118	46.7%	28.8%	25.8%
EDR 8	**Total**	**$25,396**	**$39,295**	**$13,899**	**54.7%**	**100.0%**	**100.0%**
EDR 9	Goods Producing	$37,126	$58,762	$21,636	58.3%	27.9%	21.1%
EDR 9	White Collar Services	$29,434	$46,939	$17,505	59.5%	24.1%	27.4%
EDR 9	Blue Collar Services	$20,106	$29,488	$9,382	46.7%	27.9%	31.0%
EDR 9	Public	$31,754	$48,567	$16,813	52.9%	20.1%	20.5%
EDR 9	**Total**	**$27,844**	**$41,383**	**$13,540**	**48.6%**	**100.0%**	**100.0%**
EDR 10	Goods Producing	$32,954	$48,045	$15,091	45.8%	29.1%	21.6%
EDR 10	White Collar Services	$26,275	$42,071	$15,796	60.1%	24.1%	28.6%
EDR 10	Blue Collar Services	$17,482	$29,532	$12,050	68.9%	26.9%	30.5%
EDR 10	Public	$26,960	$39,524	$12,565	46.6%	19.9%	19.3%
EDR 10	**Total**	**$24,526**	**$37,731**	**$13,205**	**53.8%**	**100.0%**	**100.0%**
Statewide	Goods Producing	$44,365	$69,189	$24,824	56.0%	21.9%	16.9%
Statewide	White Collar Services	$50,065	$75,608	$25,544	51.0%	36.9%	41.7%
Statewide	Blue Collar Services	$27,750	$39,725	$11,975	43.2%	27.4%	28.5%
Statewide	Public	$37,509	$54,154	$16,645	44.4%	13.8%	12.9%
Statewide	**Total**	**$38,666**	**$57,083**	**$18,418**	**47.6%**	**100.0%**	**100.0%**
						% of U.S. Total	
U.S.	Goods Producing	$41,015	$63,961	$22,946	55.9%	21.7%	17.0%
U.S.	White Collar Services	$47,252	$73,415	$26,163	55.4%	34.9%	40.8%
U.S.	Blue Collar Services	$25,985	$38,039	$12,054	46.4%	27.5%	27.1%
U.S.	Public	$36,549	$55,686	$19,137	52.4%	15.8%	15.0%
U.S.	**Total**	**$36,219**	**$55,390**	**$19,171**	**52.9%**	**100.0%**	**100.0%**

Changes in CPI from January 2001 to December 2017

CPI-Urban; All Items in U.S. City Average; All Urban Consumers = 40.8% Increase

CPI-Urban; All Items in Midwest urban; All Urban Consumers = 34.1% Increase

Data Source: Quarterly Census of Employment and Wages (QCEW); Bureau of Labor Statistics and IDES

Note: Statewide is equal to the sum of EDRs 1 through 10 and omits employers with a county code of Unclassified

Exhibit 14 provides annual average wages from QCEW data. Using all four quarters of the wage data component from this program captures all pay from employers to employees. The table shows that average annual wages rose 52.9% for the U.S. from 2001 through 2017. Illinois had an annual average wage increase of 47.6% during the period. The region with the highest percentage increase was the Northwest Region (EDR 6) with a 58.6% increase. The region with the lowest percentage increase was the Northern Stateline Region (EDR 5) with a 43.0% increase.

All regions exceeded the percentage change in the Consumer Price Index (CPI) from January 2001 through December 2017, which was 40.8% for the U.S. (All Items in U.S. City Average; All Urban Consumers) and 34.1% for the Midwest (All Items in Midwest Urban; All Urban Consumers). This should only be used as a guideline for comparison.

Exhibit 15. Industry Projections (2016 – 2026) – United States

	Number of Jobs (1,000s)		Change	Percent Distribution		Annual Compound Growth Rate
Industry Sector	2016	2026	2016-26	2016	2026	2016-26
TOTAL, ALL INDUSTRIES	**156,063.8**	**167,582.3**	**11,518.5**	**100.0%**	**100.0%**	**0.7%**
Self-employed, Nonagriculture	**8,733.0**	**9,512.1**	**779.1**	**5.6%**	**5.7%**	**0.9%**
Agriculture, forestry, fishing, and hunting	**2,351.5**	**2,345.4**	**-6.1**	**1.5%**	**1.4%**	**0.0%**
Agriculture wage and salary	1,501.0	1,518.0	17.0	1.0%	0.9%	0.1%
Self-employed, Agriculture	850.5	827.5	-23.0	0.5%	0.5%	-0.3%
Goods-producing, excluding agriculture	**19,685.2**	**19,904.2**	**219.0**	**12.6%**	**11.9%**	**0.1%**
Mining	626.1	716.9	90.8	0.4%	0.4%	1.4%
Construction	6,711.0	7,575.7	864.7	4.3%	4.5%	1.2%
Manufacturing	12,348.1	11,611.7	-736.4	7.9%	6.9%	-0.6%
Services-providing excluding special industries	**125,294.1**	**135,820.6**	**10,526.5**	**80.3%**	**81.0%**	**0.8%**
Utilities	556.2	559.6	3.4	0.4%	0.3%	0.1%
Wholesale trade	5,867.0	6,012.8	145.8	3.8%	3.6%	0.2%
Retail trade	15,820.4	16,232.7	412.3	10.1%	9.7%	0.3%
Transportation and warehousing	4,989.1	5,353.4	364.3	3.2%	3.2%	0.7%
Information	2,772.3	2,824.8	52.5	1.8%	1.7%	0.2%
Financial activities	8,284.8	8,764.6	479.8	5.3%	5.2%	0.6%
Professional and business services	20,135.6	22,295.3	2,159.7	12.9%	13.3%	1.0%
Educational services	3,559.7	4,066.2	506.5	2.3%	2.4%	1.3%
Health care and social assistance	19,056.3	23,054.6	3,998.3	12.2%	13.8%	1.9%
Leisure and hospitality	15,620.4	16,939.4	1,319.0	10.0%	10.1%	0.8%
Other services	6,409.4	6,761.4	352.0	4.1%	4.0%	0.5%
Federal government	2,795.0	2,739.2	-55.8	1.8%	1.6%	-0.2%
State and local government	19,427.9	20,216.6	788.7	12.4%	12.1%	0.4%

Data Source: Bureau of Labor Statistics; Employment Projections

Exhibit 15 is a table of national industry projections with a base year of 2016 and a projection year of 2026. National employment is expected to increase at an annual compound growth rate of 0.7%. The data show that proportional shares of employment will continue to shift from goods-producing industries (12.6% of total jobs in 2016 to 11.9% in 2026) and toward services-providing industries (80.3% of total jobs in 2016 to 81.0% in 2026). The BLS dataset includes government within services-providing industries.

A more detailed look shows the proportional shares of manufacturing jobs dropping (7.9% of total jobs in 2016 to 6.9% in 2026) with a small increase in construction (4.3% of total jobs in 2016 to 4.5% in 2026) among the goods-producing industries.

Within the services-providing sector, both retail trade (10.1% of total jobs in 2016 to 9.7% in 2026) and state and local government (12.4% of total jobs in 2016 to 12.1% in 2026) expect to see declines while professional and business services (12.9% of total jobs in 2016 to 13.3% in 2026) and health care and social assistance (12.2% of total jobs in 2016 to 13.8% in 2026) both increase.

Exhibit 16. Industry Projections (2016 – 2026) – Illinois

NAICS Industry Sector	Number of Jobs 2016	Number of Jobs 2026	Change 2016-26	Percent Distribution 2016	Percent Distribution 2026	Annual Compound Growth Rate 2016-26
TOTAL, ALL INDUSTRIES	**6,365,062**	**6,763,811**	**398,749**	**100.0%**	**100.0%**	**0.6%**
Self Employed Workers	271,738	272,233	495	4.3%	4.0%	0.0%
Agricultural Production, Total	74,088	74,812	724	1.2%	1.1%	0.1%
Total Nonfarm	**6,019,236**	**6,416,766**	**397,530**	**94.6%**	**94.9%**	**0.6%**
Natural Resources and Mining	8,031	7,899	-132	0.1%	0.1%	-0.2%
Construction	218,274	240,128	21,854	3.4%	3.6%	1.0%
Manufacturing, Total	573,671	589,224	15,553	9.0%	8.7%	0.3%
Trade, Transportation, and Utilities	1,237,196	1,314,769	77,573	19.4%	19.4%	0.6%
Wholesale Trade	301,789	332,870	31,081	4.7%	4.9%	1.0%
Retail Trade	617,318	634,056	16,738	9.7%	9.4%	0.3%
Transportation, Warehousing & Utilities	318,089	347,843	29,754	5.0%	5.1%	0.9%
Information	99,654	94,913	-4,741	1.6%	1.4%	-0.5%
Financial Activities	382,656	395,060	12,404	6.0%	5.8%	0.3%
Finance and Insurance, Total	303,122	311,813	8,691	4.8%	4.6%	0.3%
Real Estate and Rental and Leasing	79,534	83,247	3,713	1.2%	1.2%	0.5%
Professional and Business Services	931,586	1,025,114	93,528	14.6%	15.2%	1.0%
Professional, Scientific & Tech. Services	409,761	468,651	58,890	6.4%	6.9%	1.4%
Management of Companies and Enterprises	94,614	98,316	3,702	1.5%	1.5%	0.4%
Administrative & Waste Mngmnt. Services	427,211	458,147	30,936	6.7%	6.8%	0.7%
Educational and Health Services	1,354,931	1,444,126	89,195	21.3%	21.4%	0.6%
Educational Services, Private & Public	565,016	576,335	11,319	8.9%	8.5%	0.2%
Health Care & Social Assistance	789,915	867,791	77,876	12.4%	12.8%	0.9%
Leisure and Hospitality	596,754	679,927	83,173	9.4%	10.1%	1.3%
Arts, Entertainment and Recreation	87,772	95,406	7,634	1.4%	1.4%	0.8%
Accommodation and Food Services	508,982	584,521	75,539	8.0%	8.6%	1.4%
Other Services	268,418	271,960	3,542	4.2%	4.0%	0.1%
Government, Total	348,065	353,646	5,581	5.5%	5.2%	0.2%

Data Source: IDES; Employment Projections

Exhibit 16 is a table of Illinois industry projections with a base year of 2016 and a projection year of 2026. Statewide employment is expected to increase at an annual compound growth rate of 0.6%, slightly below the rate expected for the nation.

A more detailed look shows the proportional shares of manufacturing jobs dropping (9.0% of total jobs in 2016 to 8.7% in 2026), and a small increase in construction (3.4% of total jobs in 2016 to 3.6% in 2026). The proportional share of retail trade also falls

from 9.7% to 9.4% over the projection period as does the shares for information (1.6% of total jobs in 2016 to 1.4% in 2026) and government (5.5% of total jobs in 2016 to 5.2% in 2026).

The increases in proportional shares for Illinois employment are largest for professional, scientific and technical services (6.4% of total jobs in 2016 to 6.9% in 2026), health care and social assistance (12.4% of total jobs in 2016 to 12.8% in 2026), and accommodation and food services (8.0% of total jobs in 2016 to 8.6% in 2026).

Exhibit 17. Occupational Projections (2016 – 2026) – United States

Standard Occupational Classification (SOC) Category	SOC Code	Employment (1,000s) 2016	Employment (1,000s) 2026	Percent Distribution 2016	Percent Distribution 2026	Percent Change in Employment 2016-26	Annual Average Openings (1,000s) 2016-26
Total, All Occupations	**00-0000**	**156,064**	**167,582**	**100.0%**	**100.0%**	**7.4%**	**18,742**
Management Occs.	11-0000	9,533	10,340	6.1%	6.2%	8.5%	842
Business & Financial Operations Occs.	13-0000	8,067	8,841	5.2%	5.3%	9.6%	818
Computer & Mathematical Occs.	15-0000	4,419	5,027	2.8%	3.0%	13.7%	367
Architecture & Engineering Occs.	17-0000	2,601	2,795	1.7%	1.7%	7.5%	210
Life, Physical & Social Science Occs.	19-0000	1,300	1,424	0.8%	0.8%	9.6%	133
Community & Social Services Occs.	21-0000	2,571	2,943	1.6%	1.8%	14.5%	331
Legal Occs.	23-0000	1,283	1,400	0.8%	0.8%	9.1%	91
Education, Training & Library Occs.	25-0000	9,427	10,315	6.0%	6.2%	9.4%	919
Arts/Design/Entertainment, Sports/Media Occs.	27-0000	2,773	2,941	1.8%	1.8%	6.1%	289
Healthcare Practitioners & Technical Occs.	29-0000	8,752	10,088	5.6%	6.0%	15.3%	625
Healthcare Support Occs.	31-0000	4,316	5,335	2.8%	3.2%	23.6%	638
Protective Service Occs.	33-0000	3,506	3,664	2.2%	2.2%	4.5%	397
Food Preparation & Serving Occs.	35-0000	13,206	14,438	8.5%	8.6%	9.3%	2,470
Building & Grounds Cleaning & Maint. Occs.	37-0000	5,654	6,178	3.6%	3.7%	9.3%	788
Personal Care & Service Occs.	39-0000	6,420	7,647	4.1%	4.6%	19.1%	1,141
Sales & Related Occs.	41-0000	15,748	16,207	10.1%	9.7%	2.9%	2,201
Office & Administrative Support Occs.	43-0000	23,081	23,231	14.8%	13.9%	0.6%	2,596
Farming, Fishing & Forestry Occs.	45-0000	1,060	1,057	0.7%	0.6%	-0.3%	154
Construction & Extraction Occs.	47-0000	6,813	7,560	4.4%	4.5%	11.0%	798
Installation, Maintenance & Repair Occs.	49-0000	5,905	6,294	3.8%	3.8%	6.6%	611
Production Occs.	51-0000	9,357	8,950	6.0%	5.3%	-4.3%	990
Transportation & Material Moving Occs.	53-0000	10,274	10,908	6.6%	6.5%	6.2%	1,333

Data Source: Bureau of Labor Statistics; Employment Projections

Exhibit 17 is a table of national occupational projections with a base year of 2016 and a projection year of 2026. The data in the table are compiled by Standard Occupational Classification (SOC) category. The three occupational categories that have the largest declines in proportional share from 2016 to 2026 are sales and related occupations (10.1% of total jobs in 2016 to 9.7% in 2026), production occupations (6.0% of total jobs in 2016 to 5.3% in 2026), and office and administrative support occupations (14.8% of total jobs in 2016 to 13.9% in 2026

The increases in proportional share are spread among several occupational categories including 1) computer and mathematical occupations (2.8% of total jobs in 2016 to 3.0% in 2026); 2) community and social service occupations (1.6% of total jobs in 2016 to 1.8% in 2026); 3) education, training and library occupations (6.0% of total jobs in 2016 to 6.2% in 2026); 4) healthcare practitioners and technical occupations (5.6% of total jobs in 2016 to 6.0% in 2026); 5) healthcare support occupations (2.8% of total jobs in 2016 to 3.2% in 2026); and 6) personal care and service occupations (4.1% of total jobs in 2016 to 4.6% in 2026).

Exhibit 18. Occupational Projections (2016 – 2026) – Illinois

Standard Occupational Classification (SOC) Category	SOC Code	Employment 2016	Employment 2026	Percent Distribution 2016	Percent Distribution 2026	Percent Change in Employment 2016-26	Annual Average Openings 2016-26
Total, All Occupations	**00-0000**	**6,365,062**	**6,731,462**	**100.0%**	**100.0%**	**5.8%**	**741,544**
Management Occs.	11-0000	547,740	582,860	8.6%	8.7%	6.4%	46,672
Business & Financial Operations Occs.	13-0000	346,407	373,072	5.4%	5.5%	7.7%	34,175
Computer & Mathematical Occs.	15-0000	181,091	203,393	2.8%	3.0%	12.3%	14,699
Architecture & Engineering Occs.	17-0000	91,441	97,570	1.4%	1.4%	6.7%	7,278
Life, Physical & Social Science Occs.	19-0000	37,270	39,003	0.6%	0.6%	4.7%	3,561
Community & Social Services Occs.	21-0000	104,108	110,320	1.6%	1.6%	6.0%	12,129
Legal Occs.	23-0000	52,787	57,683	0.8%	0.9%	9.3%	3,589
Education, Training & Library Occs.	25-0000	378,119	394,380	5.9%	5.9%	4.3%	34,115
Arts/Design/Entertainment, Sports/Media Occs.	27-0000	94,568	96,968	1.5%	1.4%	2.5%	9,432
Healthcare Practitioners & Technical Occs.	29-0000	365,355	402,598	5.7%	6.0%	10.2%	23,687
Healthcare Support Occs.	31-0000	170,884	192,395	2.7%	2.9%	12.6%	22,369
Protective Service Occs.	33-0000	160,641	167,551	2.5%	2.5%	4.3%	18,267
Food Preparation & Serving Occs.	35-0000	508,254	578,497	8.0%	8.6%	13.8%	99,479
Building & Grounds Cleaning & Maint. Occs.	37-0000	195,639	206,882	3.1%	3.1%	5.8%	26,138
Personal Care & Service Occs.	39-0000	206,287	224,642	3.2%	3.3%	8.9%	33,615
Sales & Related Occs.	41-0000	634,689	656,358	10.0%	9.8%	3.4%	87,667
Office & Administrative Support Occs.	43-0000	934,557	920,108	14.7%	13.7%	-1.6%	102,624
Farming, Fishing & Forestry Occs.	45-0000	15,492	15,560	0.2%	0.2%	0.4%	2,298
Construction & Extraction Occs.	47-0000	202,329	218,070	3.2%	3.2%	7.8%	22,502
Installation, Maintenance & Repair Occs.	49-0000	215,963	228,074	3.4%	3.4%	5.6%	22,022
Production Occs.	51-0000	429,122	429,373	6.7%	6.4%	0.1%	48,223
Transportation & Material Moving Occs.	53-0000	492,319	536,105	7.7%	8.0%	8.9%	67,003

Data Source: IDES; Employment Projections

Exhibit 18 is a table of Illinois occupational projections with a base year of 2016 and a projection year of 2026. The data in the table are compiled by Standard Occupational Classification (SOC) category. The changes seen in the statewide data are close to what was seen in the national data. The three occupational categories that have the largest declines in proportional share from 2016 to 2026 are sales and related occupations (10.0% of total jobs in 2016 to 9.8% in 2026), production occupations (6.7% of total jobs in 2016 to 6.4% in 2026), and office and administrative support occupations (14.7% of total jobs in 2016 to 13.7% in 2026).

The increases in proportional share are spread among several occupational categories including 1) computer and mathematical occupations (2.8% of total jobs in 2016 to 3.0% in 2026); 2) food preparation and serving occupations (8.0% of total jobs in 2016 to 8.6% in 2026); 3) transportation and material moving occupations (7.7% of total jobs in 2016 to 8.0% in 2026); 4) healthcare practitioners and technical occupations (5.7% of total jobs in 2016 to 6.0% in 2026); and 5) healthcare support occupations (2.7% of total jobs in 2016 to 2.9% in 2026).

[Note: Employment projections data for the Illinois EDRs was not available for 2016 – 2026 at the time of publication production]

Exhibit 19. Occupational Wages, by Occupational Category (Part 1)

		United States			Illinois			EDR 1		
		Annual Wages			Annual Wages			Annual Wages		
SOC	SOC Occupational Category	Entry	Median	Exp.	Entry	Median	Exp.	Entry	Median	Exp.
00-0000	Total, All Occs	NA	$38,640	NA	$23,022	$39,952	$69,171	$21,486	$36,223	$59,220
11-0000	Management	NA	$104,240	NA	$52,607	$99,561	$147,071	$38,950	$77,363	$115,195
13-0000	Business and Financial Operations	NA	$68,350	NA	$41,542	$67,088	$92,635	$40,921	$64,446	$83,284
15-0000	Computer and Mathematical	NA	$86,340	NA	$51,058	$84,542	$106,055	$42,095	$74,851	$93,123
17-0000	Architecture and Engineering	NA	$80,170	NA	$52,109	$79,263	$99,542	$47,700	$81,079	$97,568
19-0000	Life, Physical, and Social Science	NA	$66,070	NA	$39,892	$63,219	$86,275	$35,246	$59,152	$79,186
21-0000	Community and Social Services	NA	$44,960	NA	$27,997	$43,847	$59,008	$25,833	$42,319	$57,339
23-0000	Legal	NA	$80,810	NA	$47,769	$89,591	$157,396	$46,536	$74,249	$117,288
25-0000	Education, Training, and Library	NA	$49,700	NA	$26,531	$48,187	$70,096	$23,474	$40,440	$56,525
27-0000	Arts, Design, Entertainment, Sports, and Media	NA	$49,290	NA	$24,871	$45,891	$68,154	$22,175	$34,966	$52,713
29-0000	Healthcare Practitioners and Technical	NA	$66,440	NA	$39,485	$67,134	$99,744	$35,001	$57,625	$92,056
31-0000	Healthcare Support	NA	$29,740	NA	$22,867	$28,906	$36,942	$22,455	$26,853	$32,684
33-0000	Protective Service	NA	$40,640	NA	$24,888	$45,414	$68,184	$32,203	$58,063	$72,624
35-0000	Food Preparation and Serving-Related	NA	$23,070	NA	$18,799	$21,631	$27,260	$18,609	$20,259	$24,581
37-0000	Building and Grounds Cleaning and Maintenance	NA	$26,840	NA	$21,453	$28,277	$36,058	$19,885	$24,592	$32,675
39-0000	Personal Care and Service	NA	$24,420	NA	$20,002	$23,706	$32,918	$19,366	$23,268	$33,018
41-0000	Sales and Related	NA	$28,180	NA	$20,677	$28,297	$53,718	$19,728	$24,678	$43,142
43-0000	Office and Administrative Support	NA	$35,760	NA	$24,218	$36,028	$46,806	$22,641	$33,315	$43,231
45-0000	Farming, Fishing, and Forestry	NA	$25,380	NA	$21,991	$30,397	$39,459	$25,454	$32,732	$38,891
47-0000	Construction and Extraction	NA	$46,010	NA	$34,912	$67,929	$83,114	$30,456	$50,708	$65,381
49-0000	Installation, Maintenance, and Repair	NA	$45,540	NA	$28,803	$47,827	$62,085	$26,327	$42,145	$54,938
51-0000	Production	NA	$35,070	NA	$24,104	$35,163	$46,773	$22,147	$34,328	$45,587
53-0000	Transportation and Material Moving	NA	$32,730	NA	$22,131	$32,315	$48,277	$20,966	$31,320	$43,747

		EDR 2			EDR 3			EDR 4		
		Annual Wages			Annual Wages			Annual Wages		
SOC	SOC Occupational Category	Entry	Median	Exp.	Entry	Median	Exp.	Entry	Median	Exp.
00-0000	Total, All Occs	$22,459	$37,406	$61,325	$22,260	$38,742	$66,028	$23,465	$41,823	$72,915
11-0000	Management	$45,300	$80,916	$116,055	$47,580	$90,738	$133,893	$56,210	$105,346	$154,671
13-0000	Business and Financial Operations	$37,028	$56,972	$78,939	$43,160	$67,500	$88,399	$42,658	$68,494	$95,343
15-0000	Computer and Mathematical	$48,262	$71,191	$90,167	$51,447	$83,051	$101,851	$52,444	$86,264	$108,003
17-0000	Architecture and Engineering	$46,591	$67,663	$87,313	$58,007	$91,088	$109,849	$53,008	$79,639	$100,490
19-0000	Life, Physical, and Social Science	$38,850	$52,773	$70,478	$36,390	$62,639	$82,972	$41,040	$64,845	$88,764
21-0000	Community and Social Services	$27,444	$42,477	$56,119	$26,933	$40,608	$54,392	$28,917	$45,019	$60,557
23-0000	Legal	$44,690	$75,795	$146,535	$46,925	$86,023	$128,794	$49,597	$93,063	$164,417
25-0000	Education, Training, and Library	$28,040	$48,697	$77,479	$24,690	$42,303	$61,649	$27,532	$50,876	$73,520
27-0000	Arts, Design, Entertainment, Sports, and Media	$25,392	$42,945	$65,024	$21,564	$36,920	$56,268	$26,463	$48,768	$71,522
29-0000	Healthcare Practitioners and Technical	$38,247	$60,658	$106,155	$35,491	$59,983	$101,038	$42,861	$72,138	$102,522
31-0000	Healthcare Support	$24,467	$29,995	$37,710	$22,642	$28,346	$36,162	$23,127	$29,576	$38,022
33-0000	Protective Service	$22,753	$42,842	$64,823	$23,014	$43,062	$61,938	$24,911	$43,618	$68,903
35-0000	Food Preparation and Serving-Related	$18,770	$20,415	$26,116	$18,726	$20,359	$24,809	$18,933	$22,491	$28,335
37-0000	Building and Grounds Cleaning and Maintenance	$21,273	$26,510	$33,806	$20,411	$25,682	$33,240	$21,969	$29,428	$37,087
39-0000	Personal Care and Service	$19,105	$23,443	$33,404	$19,129	$22,863	$32,290	$20,229	$23,910	$33,301
41-0000	Sales and Related	$19,198	$24,310	$41,709	$19,616	$25,107	$45,151	$21,070	$29,841	$57,653
43-0000	Office and Administrative Support	$23,914	$34,243	$43,723	$22,794	$32,529	$42,239	$24,858	$37,291	$48,547
45-0000	Farming, Fishing, and Forestry	$21,863	$26,786	$32,536	$25,693	$36,640	$43,827	$21,134	$27,723	$37,333
47-0000	Construction and Extraction	$29,547	$51,329	$69,852	$33,828	$59,435	$72,511	$38,550	$78,992	$88,798
49-0000	Installation, Maintenance, and Repair	$27,329	$43,114	$53,630	$29,043	$46,841	$59,736	$29,329	$49,593	$64,193
51-0000	Production	$24,613	$34,574	$44,644	$26,449	$40,958	$50,577	$23,829	$34,111	$46,384
53-0000	Transportation and Material Moving	$22,581	$32,291	$43,128	$22,888	$34,106	$42,780	$22,014	$31,590	$49,357

Data Source: Occupational Employment Statistics (OES) program; Bureau of Labor Statistics and IDES

Note: Annual occupational wage data is used to compare across geographic regions and occupational categories. Data for the U.S. is only available for the median, while the Illinois data is available for entry-level (average of bottom 1/3 of distribution), median (mid-point of distribution), and experienced (average of top 2/3 of distribution).

Exhibit 19. Occupational Wages, by Occupational Category (Part 2)

		EDR 5 Annual Wages			EDR 6 Annual Wages			EDR 7 Annual Wages		
SOC	SOC Occupational Category	Entry	Median	Exp.	Entry	Median	Exp.	Entry	Median	Exp.
00-0000	Total, All Occs	$22,269	$35,970	$56,582	$21,735	$35,830	$57,866	$21,304	$33,769	$52,085
11-0000	Management	$41,845	$80,817	$117,908	$42,666	$81,230	$121,218	$37,193	$71,353	$104,132
13-0000	Business and Financial Operations	$35,130	$54,980	$72,910	$35,342	$63,666	$81,932	$35,600	$53,722	$69,716
15-0000	Computer and Mathematical	$38,621	$67,851	$83,968	$54,249	$88,561	$103,252	$38,817	$58,326	$79,727
17-0000	Architecture and Engineering	$47,190	$69,997	$85,378	$53,134	$80,078	$97,780	$46,200	$70,493	$86,581
19-0000	Life, Physical, and Social Science	$41,952	$74,696	$97,100	$43,010	$61,609	$77,046	$34,901	$48,730	$64,773
21-0000	Community and Social Services	$27,755	$40,619	$54,149	$25,146	$40,116	$54,800	$23,180	$34,768	$48,775
23-0000	Legal	$36,896	$63,018	$115,433	$43,364	$79,240	$127,330	$27,999	$52,498	$99,869
25-0000	Education, Training, and Library	$23,723	$43,028	$57,628	$24,568	$44,974	$60,788	$23,378	$40,449	$57,539
27-0000	Arts, Design, Entertainment, Sports, and Media	$20,933	$33,392	$52,691	$19,994	$31,152	$48,680	$19,919	$28,453	$42,963
29-0000	Healthcare Practitioners and Technical	$36,940	$61,311	$95,636	$31,762	$52,846	$86,400	$33,195	$51,150	$86,523
31-0000	Healthcare Support	$23,274	$29,262	$35,084	$22,156	$27,252	$33,043	$21,657	$24,431	$30,202
33-0000	Protective Service	$22,254	$39,703	$59,511	$24,274	$48,731	$61,824	$31,296	$56,465	$69,219
35-0000	Food Preparation and Serving-Related	$18,633	$20,738	$25,547	$18,701	$19,878	$23,314	$18,758	$19,977	$23,572
37-0000	Building and Grounds Cleaning and Maintenance	$20,199	$25,122	$31,568	$20,370	$24,977	$33,735	$20,818	$25,338	$33,026
39-0000	Personal Care and Service	$19,352	$23,018	$31,753	$19,701	$23,061	$31,294	$19,391	$23,328	$30,040
41-0000	Sales and Related	$19,713	$25,088	$43,683	$19,649	$24,935	$43,130	$18,944	$23,409	$38,698
43-0000	Office and Administrative Support	$22,727	$32,132	$41,328	$22,729	$32,593	$41,588	$22,535	$31,083	$39,830
45-0000	Farming, Fishing, and Forestry	$22,338	$45,820	$54,249	$27,579	$33,506	$40,857	$26,708	$35,022	$45,902
47-0000	Construction and Extraction	$31,864	$60,533	$76,511	$30,731	$50,389	$65,674	$28,039	$42,311	$56,936
49-0000	Installation, Maintenance, and Repair	$27,916	$44,813	$58,328	$28,372	$45,976	$59,007	$28,075	$42,637	$55,530
51-0000	Production	$26,622	$39,442	$49,084	$25,056	$34,884	$44,910	$25,208	$34,971	$44,410
53-0000	Transportation and Material Moving	$22,124	$30,502	$39,386	$23,062	$35,118	$45,302	$22,957	$32,949	$41,613

		EDR 8 Annual Wages			EDR 9 Annual Wages			EDR 10 Annual Wages		
SOC	SOC Occupational Category	Entry	Median	Exp.	Entry	Median	Exp.	Entry	Median	Exp.
00-0000	Total, All Occs	$20,816	$33,671	$53,524	$21,558	$35,974	$57,753	$21,006	$33,882	$52,187
11-0000	Management	$34,972	$69,994	$104,704	$41,905	$79,493	$113,794	$36,657	$67,264	$99,886
13-0000	Business and Financial Operations	$32,825	$55,486	$72,746	$35,457	$63,508	$84,017	$33,851	$53,370	$70,663
15-0000	Computer and Mathematical	$34,916	$58,271	$76,423	$45,614	$81,400	$98,489	$36,501	$55,171	$74,998
17-0000	Architecture and Engineering	$45,966	$69,016	$84,460	$51,461	$75,837	$92,887	$41,638	$62,878	$80,244
19-0000	Life, Physical, and Social Science	$33,547	$52,274	$65,301	$41,699	$65,394	$80,893	$37,176	$55,205	$68,773
21-0000	Community and Social Services	$22,325	$38,844	$55,153	$26,252	$40,125	$55,546	$26,659	$43,595	$55,821
23-0000	Legal	$35,488	$63,626	$99,046	$43,434	$72,666	$120,895	$41,288	$80,038	$121,153
25-0000	Education, Training, and Library	$22,907	$44,855	$61,843	$23,041	$43,550	$63,213	$23,886	$40,795	$54,344
27-0000	Arts, Design, Entertainment, Sports, and Media	$19,877	$32,426	$47,316	$21,601	$37,130	$56,216	$21,081	$32,102	$48,001
29-0000	Healthcare Practitioners and Technical	$31,474	$53,465	$80,982	$32,685	$56,275	$84,899	$32,350	$53,645	$88,021
31-0000	Healthcare Support	$22,342	$27,635	$34,519	$22,338	$27,950	$34,958	$21,949	$25,073	$30,276
33-0000	Protective Service	$26,058	$52,356	$66,379	$25,846	$51,183	$64,907	$21,090	$46,457	$62,852
35-0000	Food Preparation and Serving-Related	$18,510	$20,204	$24,705	$18,705	$20,080	$24,531	$18,665	$19,889	$24,789
37-0000	Building and Grounds Cleaning and Maintenance	$20,286	$24,758	$32,619	$20,689	$25,905	$35,024	$19,137	$24,106	$30,613
39-0000	Personal Care and Service	$19,361	$22,163	$27,943	$19,436	$22,810	$31,945	$18,580	$21,604	$28,036
41-0000	Sales and Related	$18,861	$23,449	$38,238	$20,053	$24,637	$40,580	$18,935	$23,736	$37,688
43-0000	Office and Administrative Support	$21,282	$29,437	$38,418	$22,510	$32,468	$42,319	$21,855	$31,205	$39,148
45-0000	Farming, Fishing, and Forestry	$21,075	$32,274	$41,830	$21,763	$26,416	$35,032	$21,531	$26,113	$38,329
47-0000	Construction and Extraction	$30,165	$50,845	$66,355	$32,009	$57,376	$71,432	$28,480	$46,808	$61,216
49-0000	Installation, Maintenance, and Repair	$25,089	$40,308	$52,484	$27,802	$46,203	$58,654	$26,656	$41,266	$52,637
51-0000	Production	$22,095	$33,280	$45,499	$26,205	$40,771	$51,988	$27,503	$36,460	$43,599
53-0000	Transportation and Material Moving	$22,860	$35,832	$43,596	$23,101	$34,397	$44,332	$22,922	$33,603	$42,917

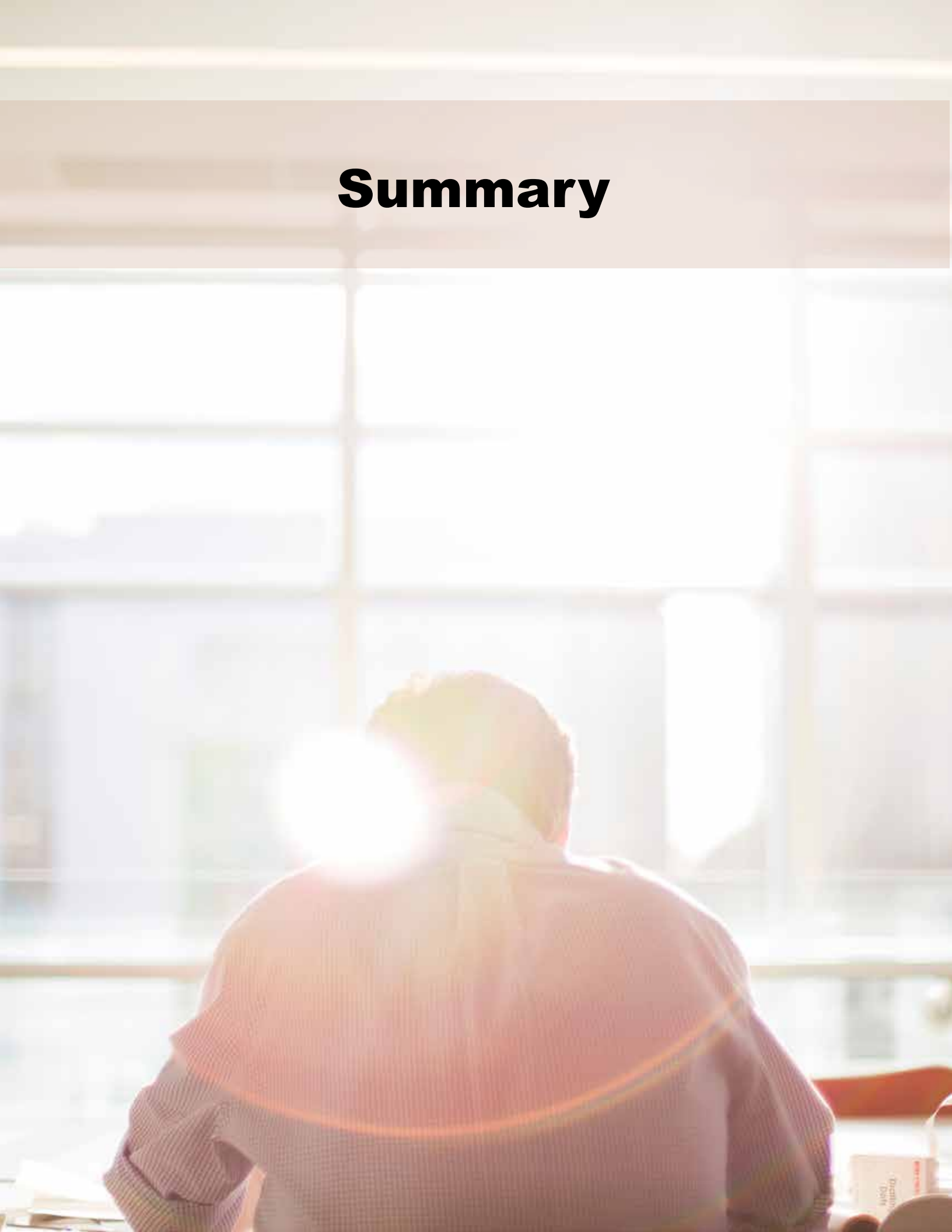
Data Source: Occupational Employment Statistics (OES) program; Bureau of Labor Statistics and IDES

According to data available in Exhibit 19, the statewide median annual wage is higher than the national median annual wage. The two regions (Northeast Region (EDR 4) & North Central Region (EDR 3)) with the highest median annual wages in the state are also higher than the national median.

The highest annual wages for the U.S. (median only) and Illinois (entry, median, experienced) are in the management occupational category. The region with the largest population and the highest median annual wage (Northeast Region - EDR 4) has its highest annual wages for entry and median in the management occupational category, while the highest annual experienced wage is in the legal occupational category. The region with the second highest median annual wage (North Central Region - EDR 3) has its highest entry and median annual wages in the architecture and engineering occupational category and its highest experienced wage in the management occupational category.

Among the ten regions, the management occupational category has the highest entry wage for one region, the highest median wage for 5 regions, and the highest experienced wage for four regions. The architecture and engineering occupational category have the highest entry wage for seven regions and the highest median wage for two regions. The legal occupational category has the highest median wage for one region and the highest experienced wage for six regions. The computer and mathematical occupational category have the highest entry wages for two regions and the highest median wages for two regions.

Summary



A strong labor market requires a strong economy. Globalization has increased international trade, which has hurt American labor markets by increasing competition in some markets and through the loss of jobs such as in the manufacturing industry. It has also kept prices low by producing goods in other countries where they can be made cheaper before being brought to the U.S. for sale.

The U.S. economy is dependent on the global economy as international trade is an important component. Likewise, a state's economy is dependent on the national economy and a sub-state economy is dependent on the statewide economy.

This report focuses on issues that have some relevance to the Illinois economy and its labor markets even as the discussion may be based on broader economies. The primary reason for this is because studies of economic issues are generally more easily completed using national data. This is due to the quality and availability of the data at the national level relative to smaller geographical areas. For this report, national data is assumed to be reflective of Illinois data unless otherwise specified.

The global economy has been struggling recently, in part due to trade disputes. The biggest is between the U.S. and China and the question of its resolution will have a big impact on the future of the world economy. The world has become almost as dependent on China to buy up their goods and services as the U.S. Any decline in the Chinese economy would have a large impact on the global economy. A trade war between the U.S. and China would hurt American farmers who have exported large amounts of agricultural commodities to China.

The U.S. economy has remained strong but has started to show signs of weakness. The national unemployment rate is near a 50-year low while corporate profits and wages are growing at their fastest pace in years. Industries such as housing that are sensitive to rising borrowing costs have been struggling. Many U.S. businesses took advantage of low interest rates following the financial crisis to obtain higher returns on their investment. Some of these businesses are now in a situation that requires them to use a higher portion of their earnings to pay off lenders rather than putting it toward their business. This could have a negative impact on hiring in the future and would be only worse in the case of a recession.

A record 7 million people in the United States are 90 days or more behind on their auto loan payments as of the end of 2018. Data shows that the amount of debt Americans are carrying has increased by $1 trillion since 2013. The total amount of debt is nearly $1.2 trillion in auto loans; almost $1.6 trillion in student loans; and $1 trillion of consumer credit, primarily from credit cards.

Nobel laureate Paul Krugman has said that the U.S. economy may be heading into a recession due to an accumulation of problems such as larger amounts of public debt and because the Federal Reserve Bank lacks the firepower for a good policy response to an economic downturn. A survey completed by the National Association for Business Economics shows that America's business leaders believe the United States will enter a recession by the end of 2020. The report shows the risk of a recession starting in 2019 is only 15% but is 60% by the end of 2020. Meanwhile, a report from Moody's Investors Service says Illinois is among two states least equipped to handle another recession.

Growth in Illinois' economic production has lagged the United States primarily due to population growth. The South and West regions of the U.S. have had stronger population growth than the Northeast and Midwest over the last few decades. Illinois'

population fell 0.8% from 2010 to 2018, while the U.S. grew 5.8% and the Midwest grew 2.0%. Illinois has dropped from fifth to sixth in state population rankings (fell behind Pennsylvania) during this time. This difference in population growth is the primary reason Illinois also lag the U.S. in economic growth.

A World Economic Forum report says that 29% of workplace tasks are carried out by machines today and this will increase to 52% by 2025. The report expects 75 million jobs to be eliminated, but 133 million jobs would be created during that time. Workers will need to be trained or re-trained in preparation for these new jobs. Employers are expected to have more flexible arrangements for workers and to make work available in different locations to match up with workers that have the right skills.

Robots are now more diverse in performance as well as cheaper allowing them to spread into more industries. Total shipments increased by 16% over 2017 according to the Association for Advancing Automation. The largest increases were in food and consumer good businesses (increase of 60%); semiconductor and electronics plants (increase of 50%); and metal producers (increase of 13%). Automation is now spreading into warehouses and smaller factories.

The Federal Aviation Administration expects the number of commercial drones in the U.S. to more than triple by 2023. Chicago-area companies are exploring new ways to use the machines and training more employees how to operate them. Lewis University in Romeoville launched an Unmanned Aircraft Systems program in 2015 in anticipation of an increased demand for skilled drone operators. The industry likes to say that drones are best used for jobs that are dirty, dangerous and dull.

The recovery of the U.S. economy has benefited coastal cities more than the rest of the country. The Census Bureau has found that data supports the conclusion that the nation's cities with the strongest economies are losing people to other parts of the country. For example, more people left King County, Washington and Santa Clara County California than moved in from other parts of the country. Although these areas are attracting people with high-level skills to jobs with high wages, they are losing even more people who have found living in these areas is too expensive.

These areas tend to have wages well above the national median per occupation. But most of these high-paying jobs require a strong educational background. Jobs in these same geographic areas not requiring a high-level of educational attainment do not pay nearly as well. Since the associated costs of living in these areas is much higher, such as housing, lower income workers are better off moving to somewhere that is more affordable.

Population estimates for 2018 released by the Census Bureau show that the city of Chicago has stabilized in population, while its metropolitan area lost population for the fourth year in a row. Experts at the Center for Budget and Tax Accountability believe that the city's population of higher-skilled people is growing while the less-educated and poorer residents are moving away. Chicago was once a city that had manufacturing plants that attracted low-skilled workers to the area, but that is no longer the case.

Many of the nation's unemployed are concentrated in urban areas that have high unemployment rates with few employment opportunities. Approximately a quarter of the nation's unemployed live in 50 urban counties in the U.S. according to a review of federal data by Reuters.

Some economists and policymakers believe that these areas need to be addressed through "place-based" policies. A section of the bipartisan Tax Cuts and Jobs Act of 2017 includes an Opportunity Zone program intended to reduce the cost of investing in disadvantaged neighborhoods. This program uses the federal tax code to change incentives for investing in communities that are associated with the "cycle of poverty". The changes include a measure granting capital gains waivers for those who invest in distressed areas.

The program targets investors who have made large returns in markets such as stock and real estate who would have to pay large capital gains taxes on their earnings if they were to cash out. It allows these same investors to move their money into investments in designated distressed neighborhoods while deferring taxes on their investment until the 2026 tax year. The tax owed on the original gain would be cut by 15 percent after the seven-year period and any gain on the new investment is tax-free if the investment is held for at least 10 years.

One site being targeted as an Opportunity Zone in Chicago is the Michael Reese Hospital site south of McCormick Place. Other Chicago sites of interest include the 440-acre South Works steel mill site along Chicago's south lakefront. Small data centers are being planned for Chicago neighborhoods to fill gaps in the data network. These sites are from a list of 135 sites on Chicago's south and west sides. The earliest impacts of Opportunity Zones are likely to be in areas that were already in the path of progress. The program could help push new projects farther into economically challenged areas.

The middle class has been shrinking while the global and national economies have experienced strong economic growth. Real incomes at the top of the distribution are hitting new highs while real incomes in the middle of the distribution have not grown. The rising costs of education, health care and housing (in some markets) has put even more pressure on the middle class.

Federal Reserve data shows that the proportion of family income from wages has declined from almost 70% to under 61% in the last 15 years, primarily due to earnings from investments by households at the higher income levels. Most Americans believed owning a home was good before the financial crisis as home prices always seemed to trend upward. Now the typical net worth of a middle-class family has fallen more than $40,000 below where it was in 2007. Actions taken by the Federal Reserve in response to the financial crisis have benefitted most those who had investments in the stock market.

Income inequality has been becoming a bigger issue over the last several decades in the United States. In general, the households at the very top of the income distribution have seen the amount of income as a proportional share of total household income rise, while the households lower on the income distribution have seen their proportional shares in decline. This has in turn had a negative impact on the middle class of the country.

The current level of income inequality in the U.S. has not been seen since before World War II. This has a negative impact on the potential for economic growth and thus employment opportunities. Children of families at lower incomes tend to obtain lower educational attainment levels. Therefore, this group is less likely to be as productive as they could be. People of lower educational attainment levels also have lower labor force participation rates. These outcomes are likely to continue for lower income individuals as post-secondary education becomes more expensive.

An optimal amount of income inequality exists that allows for people to be in different income classes yet have a healthy economy. This was demonstrated by reports in 2015 by the World Bank and in 2017 by the International Monetary Fund. The less than optimal income inequality also has a negative impact on people at the top of the income distribution. People who are in the higher income class who own businesses have fewer customers that can afford their goods and services. A 2016 study from the London School of Economics shows that more property crime results in the richer neighborhood as income gaps in adjoining neighborhoods gets larger.

Rural areas in the Midwest have a smaller prime-age labor force than they once had as some in this age group have transitioned to mid-sized or larger communities with better job opportunities. Many young people that leave after high school for college or military service do not return to the area where they were raised because of a lack of economic opportunity. Employers in those rural areas then face an absence of available workers.

Employers are now more willing to consider portions of the labor pool that have not received full consideration in the past. The national unemployment rate for people with disabilities fell to an annual average of 9.2% in 2017, down from 15.0% in 2011. Employers are also giving more consideration to individuals with criminal records. The state of Illinois has changed licensing laws to make more than 100 occupations more accessible to people with criminal records. Illinois has also expanded the types of convictions that can be sealed making them inaccessible to employers.

Participation rates for the elderly have risen in part because some don't have the financial resources to retire. Higher health costs, inadequate retirement savings, and uncertainty about government safety nets have combined to raise the labor force participation rate of those of ages 65 and over above the 20 percent mark. This is about double the rate of 1985. Many older workers have college educations and make a good income. This group of older workers are more educated, wealthier individuals in better health who probably like to work. The less-educated, working-class older workers are likely the ones who need to work the most.

The people in this age group (54-73) are working longer than ever before and putting off retirement. Some still have adult children living with them. Many are staying in the labor force because they are healthier and want to accumulate more financial resources before they retire. They may also have their mortgages paid off and are comfortable with their housing situation.

The number of middle-class Americans that find home ownership is not affordable is growing. The number of homes that are affordable for a household with a median income has gone down in many metropolitan areas. The number of people approaching retirement age choosing to remain in the house where they raised a family is growing. Many older Americans are still downsizing to smaller houses, but they are doing so later in life. This has reduced the inventory available on the market.

Although Illinois lags the U.S. in housing starts and growth rates in housing prices, it also offers cheaper housing than the nation. In fact, the median price of a single-family home in the Chicago MSA is cheaper than the median price for the U.S. Median prices for other MSAs with at least a portion of their area in Illinois have median prices well below the median price of the Chicago MSA. This is something that Illinois should take advantage of when recruiting employers and workers to the state.

Employers have left California for years to move to states with lower taxes and less regulation. Now more employers are leaving California because they want to have affordable housing available for their workers. The median home price in California for 2018 was $570,010 according to the California Association of Realtors, which is more than twice as much as the national median price. The median price for the Bay area is around $1 million.

The Missouri Farm Bureau Federation cited the trade war as a major factor contributing to farmers' mental health problems. A national survey sponsored by the American Farm Bureau showed 91 percent of respondents cited financial trauma as affecting their mental health. Most rural adults have either sought mental-health care or have a family member who did.

Rural areas are now populated with individuals who tend to be older, poorer and sicker than urban areas. They also tend to have more challenges accessing health care and other services. About 4 in 10 rural adults have struggled to afford medical bills, housing or food in recent years according to a poll conducted by Harvard's T.H. Chan School of Public Health.

Other issues impacting rural Americans including housing conditions that might affect a family's safety such as pests and bugs, drinking water safety, and problems with electrical and sewage service. A lack of Internet access and overall financial insecurity impact a considerable share of families.

The foundation for a "good' quality of life is dependent on an individual's ability to develop their skills through appropriate education/training. This includes K-12 and post-secondary education/ training. These skills can then be utilized to obtain stable employment with good wages, and other benefits. Although other factors are involved, this provides individuals with the best opportunities to provide support themselves and their dependents.

Policy makers need to target a strong middle class for the nation, which means enacting policies that move society toward an optimal level of income inequality instead of away from it. This requires a strong educational system, one that is accessible and affordable to everyone. Sustainable, strong economic growth depends on a labor force that is well educated/trained and adaptable to the ever-changing needs of industry.

Stories from Around the State

Raising lettuce and fish year-round, brothers modernize 7th generation farm with aquaponics

The younger generation (six brothers) of a farming family near Paderborn, Illinois (30 miles southeast of St. Louis) have developed an aquaponic system that draws nutrients from surrounding tanks that contain 400 bluegill and catfish. The business is called VAST (Vertical Aquaponics with Sustainable Technology) Produce. The greenhouse-type setting includes rows of plants (22 types of greens) stacked vertically. The plants draw water via a series of tubes that begins at the fish tanks, then passes through a series of other tanks in which suspended fish waste is broken down by naturally occurring bacteria. The family sells the greens at local farmers markets. The brothers currently hold day jobs and the aquaponics effort is done on the side. The family is using their profits to continue to grow the scale of their business to match local demand. The method they are using allows for high-density production and the ability to grow crops throughout the year. [S1]

Downtown Champaign mega project covers whole nine 'Yards'

"The Yards" development project in downtown Champaign is projected to cost $200 million. The proposal for the area includes a hotel, a convention space for up to 1,000 people, about 100 apartments, retail and office space, as well as a 5,000-seat multipurpose arena. The arena could potentially be the home of a Division 1 hockey program for the University of Illinois. The project would also include parking decks and a renovation of the bus terminal building in downtown Champaign. The larger terminal would make current traffic flow safer and allow room for growth. The project would raise tax money for the city and the stature of downtown Champaign. [S2]

Efforts continue to widen U.S. 67 through western Illinois

Corridor 67 is a grassroots group that has been lobbying for 29 years to convert 228 miles of U.S. 67 between Godfrey and Rock Island from a two-lane highway into a four-lane expressway. More than $1 billion has been spent on the project expected to cost $3 billion, and more than 120 miles of the highway have been improved to four lanes. Work continues in several locations along the road including design and engineering work for a $62 million bridge at Beardstown. This project will build a single, two-lane bridge with the hope of building a second bridge later eventually having a four-lane crossing. Design work for a four-lane section of road between Chapin and Beardstown has also started. Capital funds are needed to pay for construction. Engineering work also continues for road segments in Greene and Jersey counties. Jerseyville officials believe the highway improvements helped to attract the planned $750 million Mid-American International Gateway intermodal facility to their community. The facility will be used as a major hub for the Kansas City Southern Railroad in the distribution of goods. [S3]

Illinois a leader in aerospace, aviation technology

Illinois has an aerospace industry cluster centered around the northern and northeastern portion of the state. The Rockford area has more than 70 aerospace companies with total employment of approximately 7,000 people. More than 200 companies are in the cluster if you include the Chicago area and southeastern Wisconsin. The area's industry cluster is recognized for "solid research and development" allowing it to remain relevant and strong. [S4]

Stories from Around the State

continued...

Paramount Theatre's plans for future involve triple the shows, theater-pub combo — and bigger seats with cupholders

Aurora Illinois is focusing on the arts, housing and the riverfront to anchor the downtown area. Downtown Aurora was a retail hub for the region in the 1950s and 1960s. Prior to shopping malls, the sidewalks were filled with shoppers. The scene changed dramatically in the 1970s as malls took away shoppers and a changing economy hurt the manufacturing base. A casino opened in downtown in 1993 but it did not have the impact for which city officials had hoped. Eventually the city decided to focus on arts and culture and residential housing. The Paramount Arts Centre theater was renovated in the 1970s, which started to bring people downtown. More recently, the Paramount started developing its own Broadway Series of shows to increase the number of shows. The theater plans to triple the number of shows that will be produced in downtown Aurora by 2020 or 2021. This will entail the renovation of the smaller Copley Theatre, which is set to begin once the new Aurora Arts Center is completed in early-2019. The plan is to raise the number of shows in downtown Aurora from 275 to over 900 per year. That would include performances at sites including the Paramount main theater, the Copley Theatre, and RiverEdge Park with one other building being considered for smaller theater/pub shows. RiverEdge Park opened in 2012 bringing hundreds of thousands of people downtown for outdoor concerts in the summer. The downtown area also has plans to add the Fox Valley Music Foundation facility, which will feature live music, a music library and a museum with a history of music related to Aurora. [S5] [S6]

McDonald's to invest $2 million in Chicago job training programs for young people

McDonald's plans to invest $2 million to provide job training programs for Chicago youth. The money will go to nonprofits such as Skills for Chicagoland's Future that have job readiness programs. Chicago is the only U.S. city that will receive money for this initiative at this time. Nonprofit Thrive Chicago has estimated that more than 50,000 Chicago youth are out of school and unemployed. Additional money will support a new two-year apprenticeship program at City Colleges of Chicago to help students earn Associate's degrees in business for restaurant management positions. [S7]

Expensive degree and no guaranteed job: More students are considering options outside of 4-year college

High school administrators say more students are considering options outside of four-year degrees because they're not sure if the investment in college will pay off. Some of the fastest-growing fields are attainable without a university education. Technical training for skilled trades can sometimes be started in hands-on high school courses. Some high schools in the Chicago area offer courses that allow students to work toward college or certification program credit. Local employers provide input on the courses, so the courses fit what is needed to get jobs.

The Village of Park Forest developed the South Suburban Trades Initiative in partnership with two local community colleges to build interest in the construction trades. They fixed up foreclosed homes abandoned after the housing market crash as part of the training. Much of the work was completed by students in building trades classes at Prairie State College in Chicago Heights and South Suburban College in South Holland. The village will sell the home once it is completed and use the proceeds to fix more village-owned abandoned homes with the students. [S8]

Stories from Around the State
continued...

From boats to barns, Midwest salt bed could shift seafood market inland

The coasts have traditionally been the source of locally raised seafood. Scientists have been exploring the viability of raising saltwater species in landlocked states since the nation currently imports more than 80 percent of its seafood. This would help alleviate overharvesting done on species at unsustainable rates as well as cover for habitats that are being threatened by climate change. The process of raising seafood is known as aquaculture and has become one of the fastest-growing food production processes in the world. More fish were farmed globally in 2014 than were caught according to the Food and Agriculture Organization of the United Nations. The Midwest currently produces less than 1 percent of farm-raised seafood in the U.S. It is difficult to cover operational costs such as synthetic salt to replicate ocean waters to farm seafood. However, about 540 million years ago, much of this area was under an ancient sea. Researchers believe that large amounts of brine from that period is trapped under the state of Illinois. The Illinois Sustainable Technology Center conducted a related study and believes if this saltwater could be drawn to the surface it would cut costs significantly for prospective farmers. The water would likely have to be diluted for farm purposes. It is known to exist as it sometimes comes to the surface in oil and natural gas recovery operations. [S9]

New rail and road projects will untie some tricky South Side knots

About half of the funding for the Chicago Region Environmental & Transportation Efficiency program (CREATE) ($2 billion out of $4.4 billion) has been spent or funded since the plan's launch in 2003. A portion known as the 75th Street project has a cost of $474 million and will include a flyover, track, and signal improvements to untangle congestion in the area. Once the entire CREATE project is completed, the region will be able to handle up to 50,000 more freight trains annually by 2051. The program has already cut the time it takes to get a freight train through Chicago from 48 hours to 24 hours. [S10]

Abbott 401(k) program to help employees who have student debt could become national model

Abbott Laboratories (located in Chicago's north suburbs) had its request approved by the Internal Revenue Service (IRS) for a program that allows workers to use part of their paycheck to repay student loans. The worker would still get a tax-free contribution from the employer to their 401(k) retirement account, even if the worker did not contribute anything themselves. The IRS has now been asked to broaden the ruling so that other employers could implement similar programs. Sixty percent of Illinois students who graduate college have student debt owing an average of $30,000. [S11]

University of Illinois engineering professor to lead downtown Chicago innovation center

The University of Illinois is a key part of an ambitious public-private South Loop development called the Discovery Partners Institute. It would be a facility for conducting specialized research in computing and big data, food and agriculture, health and wellness, and environment and water. It is expected to employ more than 100 faculty and provide training to 2,000 students each year. The University of Chicago and Northwestern University are also members of the initial partnership. The institute would be located within the 62-acre parcel sitting to the east of the Chicago River with Clark Street bordering the east-side and Roosevelt Road the north-side. The area would be a bridge between the South Loop and Chinatown. [S12]

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