

WISCONSIN WORKFORCE COMPETITIVENESS EVALUATION



FUTURE WISCONSIN PROJECT

WMC
FOUNDATION



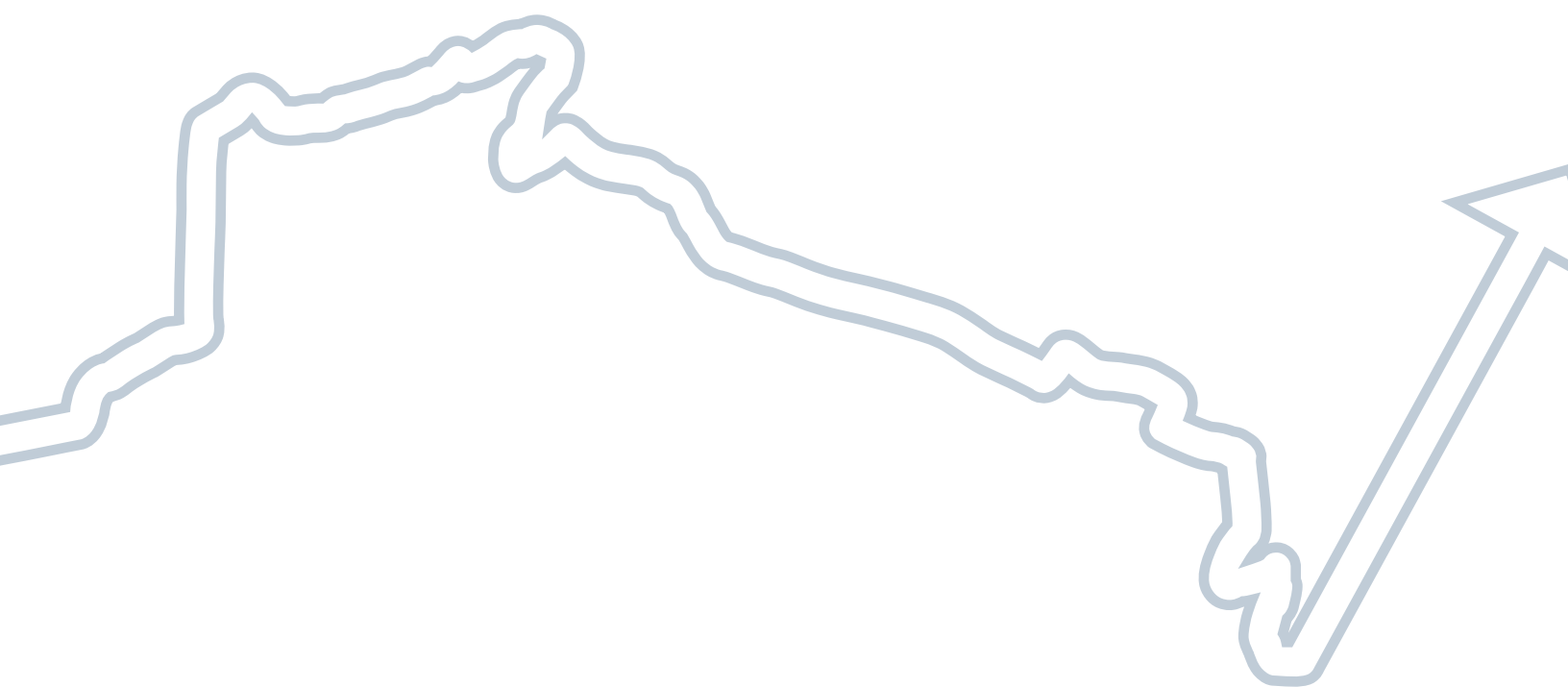
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EXECUTIVE SUMMARY

The United States economy is currently approaching a record 100 months of continuous private sector job expansion. Gross domestic product growth has accelerated and wages, manufacturing output and worker productivity have recovered from the economic devastation of the great recession of 2008-2009.

Although economic success is not evenly felt across the country, Wisconsin is enjoying strong economic performance, near historically low unemployment, a diverse economic base including a robust manufacturing sector and high business optimism. But underlying all the success is a growing crisis: the lack of enough appropriately-skilled workers. Business leaders understand that the tight labor market and workplace skill gaps will stifle future economic growth unless these issues are addressed in an aggressive manner and addressed soon.

The national workforce headwinds are an intricate jumble of changing demographics, shifting employer expectations, accelerating automation and a growing policy debate on education and training effectiveness. Demographic trends indicate no relief in sight for very tight labor markets, and even the rising adoption of automation and artificial intelligence is not expected to decrease overall employment needs.

States are challenged to identify the emerging skills required for successful employment, to identify the resources to support a competitive lifelong talent pipeline, and to align and focus the efforts of many, often siloed, stakeholders. To compete for jobs and investment, having the needed quantity of skilled talent has emerged as the top competitive priority.

Our research revealed the key strengths and weaknesses of Wisconsin's workforce and workforce development efforts to be:

Wisconsin Workforce Strengths

- Strong work ethic
- High education levels
- Effective and responsive technical college system
- Concerted efforts to address the state's most serious workforce issues
- Increased state-level funding for workforce development
- Proactive talent attraction initiatives

Wisconsin Workforce Weaknesses

- Lack of workforce supply – simply not enough people in the pipeline

- Lack of projected working-age population growth across the state
- Skill gaps – especially technical skills, with some soft skills issues among younger workers
- Pockets of disadvantaged adults not participating fully in the workforce, and achievement gaps in schools
- Little awareness of in-state career options among K-12 school students

Although Wisconsin's economic base is reasonably strong across the state and unemployment is low throughout, urban and rural areas experience different economic and workforce challenges. Rural and small-town Wisconsin has greater difficulty attracting and retaining talent. It also faces infrastructure issues such as broadband internet access and a lack of public transportation. Meanwhile, some urban neighborhoods have larger concentrations of under-employed and unemployed adults.

This report summarizes ways to increase Wisconsin's workforce competitiveness in six areas:

Attract and Retain Talent

- Increase state funding for talent attraction and retention initiatives to make Wisconsin the unquestioned national leader in securing the state's future workforce.
- Craft incentive programs to attract various types of individuals: high-skill, middle-skill, and entry-level workers. Use DWD data to fine-tune the people and skills to be targeted.
- Continue to emphasize military veterans as a key target for talent attraction efforts.
- Lead with messaging that focuses on jobs and career opportunities (including those for spouses), cost of living, and other practical considerations.
- Coordinate talent attraction efforts between the public and private sector, and between local, regional, and state agencies.
- Encourage businesses to join in efforts to recruit employees from other states and nations.
- Consider financial incentive programs for the most in-demand occupations.
- Increase efforts in each region to encourage diversity and become more welcoming communities for poten-



tial new residents including foreign immigrants.

Upskill Existing Workers

- Improve the successful Wisconsin Fast Forward training grants to make better use of workforce partners and incorporate more industry-recognized credentials.
- Provide greater flexibility in financial aid for use in focused, short-term education and training programs.

Improve Career Pathways

- Expand the 'bridge' programs, support services, and entry/exit points for adult workers to move up to higher-skill, higher-wage jobs and become lifelong learners.
- Fine-tune career pathways to match growing, high-demand occupations in every region of the state.

Promote Apprenticeships, Youth Apprenticeships, Internships, and other Work-Based Learning for Students

- Expand youth apprenticeships, internships, or other age-appropriate job and career learning for students in the 7th to the 12th grades.
- Consider a state-level incentive program for businesses to provide paid college student internships.
- Develop a seamless transition between youth apprenticeship and registered apprenticeship programs.
- Incentivize companies to develop their own apprenticeship programs. Successful, high-quality new programs could be adopted for use statewide.

Promote Career Awareness

- Improve the quantity and quality of middle-school and high-school counselors as related to career guidance.
- Expand websites for students and parents to discover the career opportunities and skills needed in each region of Wisconsin.
- Expand teacher internship or work exposure programs.

Reach Disconnected Groups

- Bring job readiness and employability training for disadvantaged adults to all parts of the state, based on successful service models such as the Joseph Project and Forward Service Corporation.

- Increase participant numbers in the state's Windows to Work program for prison inmates.

In each of these areas, Wisconsin's workforce initiatives could benefit from better use of data and from sufficient funding commitments. Improved evaluation and reporting of program data should be used to: a) adjust offerings and curricula to focus on the most effective programs; b) demonstrate outcomes and return on investment for all investors; and c) create more specific participation and completion targets. Increased funding is particularly recommended for the state's talent attraction and retention initiatives.

In interviews and survey responses, one of the main points that business leaders drove home is the need for businesses to boost engagement – starting with schools, students, parents, and teachers. If Wisconsin companies expect improvement in workforce conditions, they will need to be a prominent voice for change, to deepen collaboration with workforce partners, to invest, and to lead by example.

To help Wisconsin continue to improve training and education efforts that strengthen the workforce pipeline, the Future Wisconsin Project can play five important roles:

1. **Facilitator** and convener to connect the business community, education and training providers;
2. **Advocate** at the state level to ensure that lawmakers understand the magnitude of workforce issues impacting Wisconsin, advancing innovative policy solutions to address them;
3. **Scorekeeper** to track successes and setbacks in these efforts;
4. **Communicator**, sharing best practices by businesses and organizations around Wisconsin and the nation – especially with smaller businesses that often have fewer resources;
5. Being the **voice of opportunity** so that students, parents, teachers and counselors are aware of the great business and career opportunities available in each region of the state. 

THE NATIONAL ECONOMY

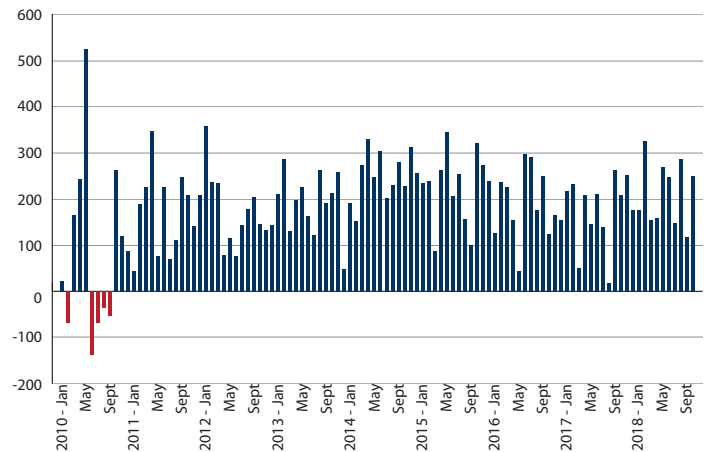
The United States economy is currently approaching a record 100 months of continuous private sector job expansion. Over the past 12 months, construction employment is up 4.7 percent, manufacturing employment up 2.4 percent and business and professional services employment up 2.8 percent. Gross domestic product growth has accelerated and wages, manufacturing output and worker productivity have recovered from the economic devastation of the great recession of 2008-2009.

Nationally, the unemployment rate has dropped from 10 percent in October 2009 to under four percent over the past several months. When the great recession began, the ratio of unemployed persons per job opening was 1.9. At the end of the recession, in June 2009, there were 6.1 unemployed persons looking for work for each job opening, later peaking at 6.6 unemployed persons per job opening. Over the past eight years the ratio has declined dramatically and now stands at 0.9, less than a single person per job opening.

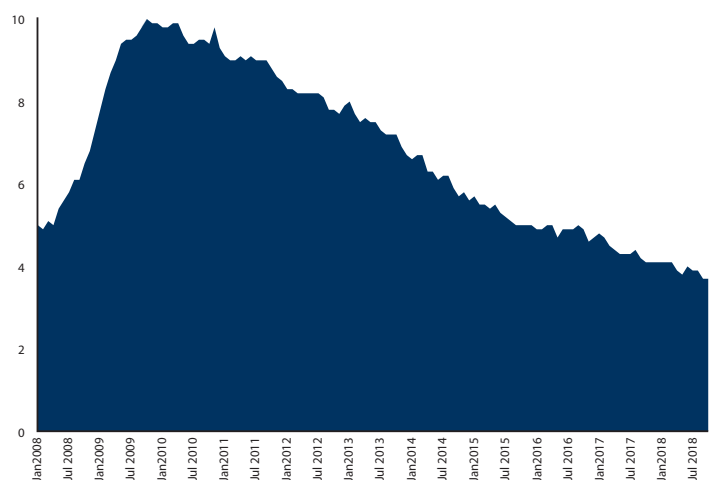
Despite the rising presence of automation in the workplace, most research indicates that automation and artificial intelligence (AI) will not result in the need for fewer employees. In May 2018, the McKinsey Global Institute reported that only six percent of American and European business leaders expect automation and AI to decrease headcounts, while 17 percent expect it to lead to greater employment through 2030.ⁱ Similarly, a new study by Deloitte and The Manufacturing Institute finds that overall manufacturing employment is likely to increase despite 47 percent of current jobs being in jeopardy from automation, because “these jobs would transition into other skills, likely infused with technology.”ⁱⁱ

Participation rates for adults have stabilized and graduation rates from both high school and college are at or near all-time highs. The United States has regained the top spot for global competitiveness rankings and for direct foreign investment. Although no expansion can last forever, the past eight years have been a time where the national economy has surged, and most state economies have grown significantly.

USA Net Payroll Employment Change By Month 2010-2018 (in thousands)



USA Monthly Unemployment Rate





OVERVIEW OF WISCONSIN'S WORKFORCE

Currently, Wisconsin is blessed with an economy, a workforce, and a workforce development system that is the envy of much of the United States. The state has an economic base that is reasonably diverse across industry sectors and not heavily concentrated geographically, with a robust manufacturing component. The unemployment rate is at historic lows, with a recent figure of 3.0 percent.

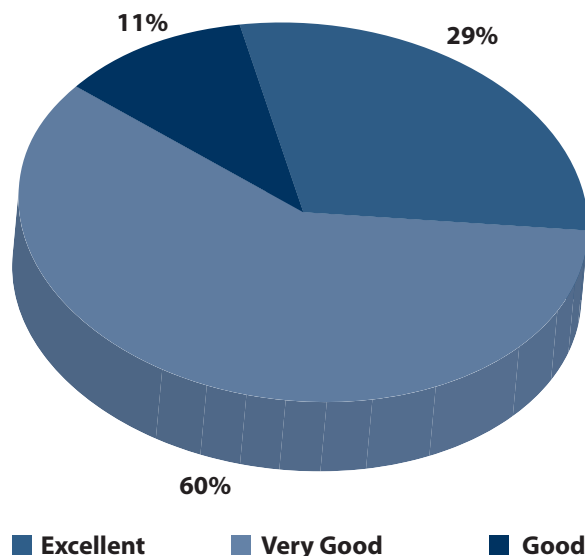
ⁱⁱⁱ Over the 12-month period from October 2017 to October 2018 non-farm payroll employment in Wisconsin grew by 1.1 percent, below the national average of 1.7 percent. The state has enjoyed strong job growth in construction (+7.9%) and manufacturing (+4.3%), but has experienced job contraction in the financial services, business and professional services, and government sectors.

In our fall 2018 survey of Wisconsin Manufacturers & Commerce (WMC) leadership, 89 percent of respondents rated Wisconsin's economy as excellent or very good. In our interviews with CEOs, the overall optimism shines through. Various actors at the state, regional, and local levels are striving to address nearly every substantial workforce training and education issue, and Wisconsin is recognized as a national leader in many areas of workforce development.

Still, the dual workforce challenges of quantity and quality threaten to impede and stifle economic growth across the state, especially future growth. The need to attract and retain skilled workers is particularly pressing in rural Wisconsin. When asked about conditions in Wisconsin that impact business success – everything from business financing to healthcare to quality of life – the “availability of workers with appropriate skills” was by far the most often-cited factor in our survey. Eight-seven percent of respondents report that employers have trouble finding people with the right technical skills, and 64 percent indicate difficulty finding individuals with good ‘soft’ skills such as reliability, teamwork and communication. Many WMC members believe that the workforce situation is **the** major issue in Wisconsin, as is the case in much of the United States.

This report will evaluate the strengths and weaknesses of Wisconsin's workforce and workforce development initiatives, with recommendations for improving the overall competitiveness of the state's workforce training and education efforts. Our evaluation included interviews with business and workforce system leaders around Wisconsin, a survey of WMC leadership, and a summary of state and national best practices in the most critical thematic issues impacting the workforce.

Current Economic Conditions in Wisconsin (Fall 2018)



Strengths and Weaknesses of the Wisconsin Workforce:

Strengths

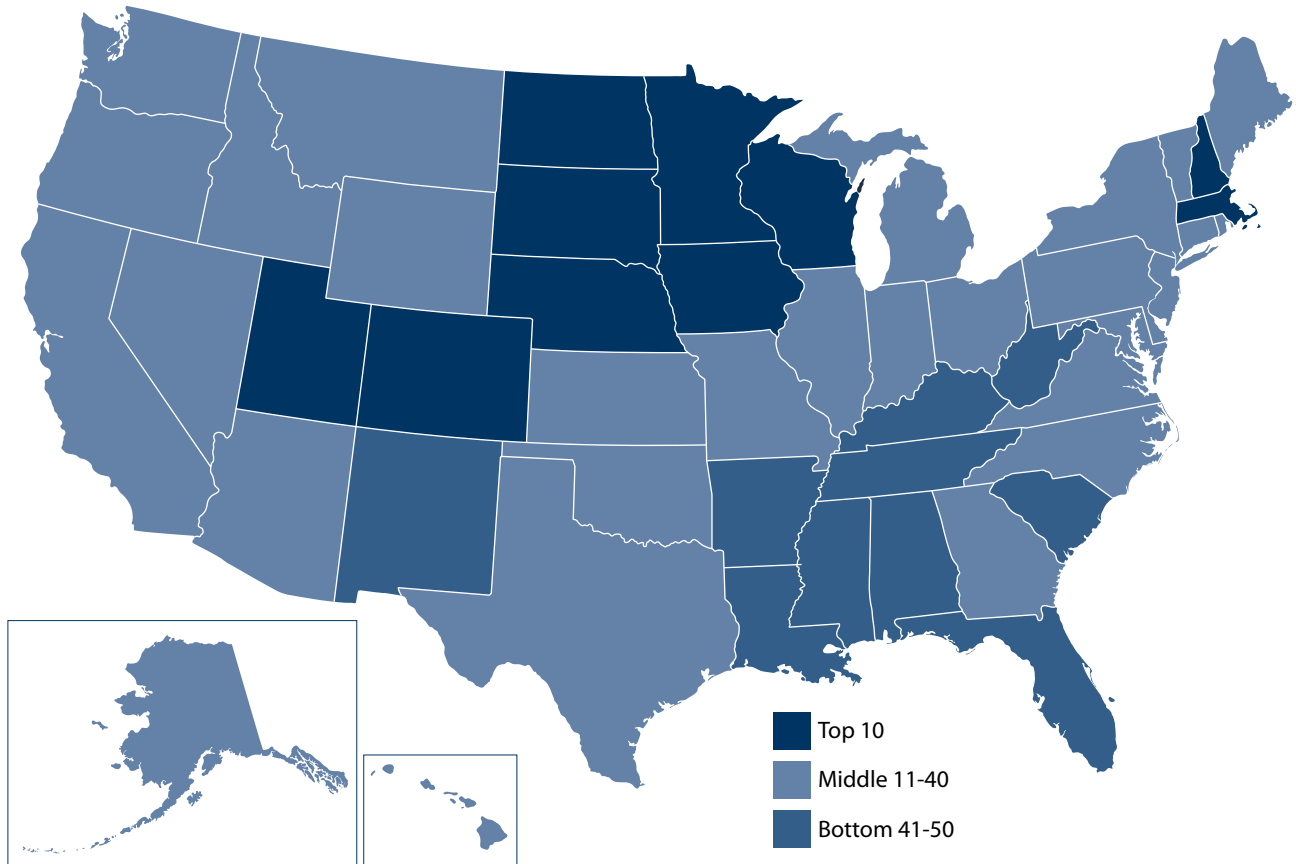
- Work ethic – the belief that Wisconsin workers possess a strong work ethic is nearly universal among business interviewees. Business leaders with experience in other states say that the hard-working Wisconsin population stands out in comparison. One CEO believes that it “is a fact” that the quality, productivity, and safety of the state's workforce is superior.
- Those interviewed also cite a generally well-educated population.
- The workforce participation rate is among the highest in the nation, recently at 68.8 percent. ^{iv}
- At a time when many states continue to experience manufacturing job losses, Wisconsin is adding manufacturing jobs at one of the highest rates in America. ^v
- Wisconsin has success in employing some disadvantaged groups – for example, the percentage of disabled people employed in the state ranks among the top 10 nationally. ^{vi}

Weaknesses

- “Supply and Skills” – almost every interviewee echoed some version of this complaint, that the

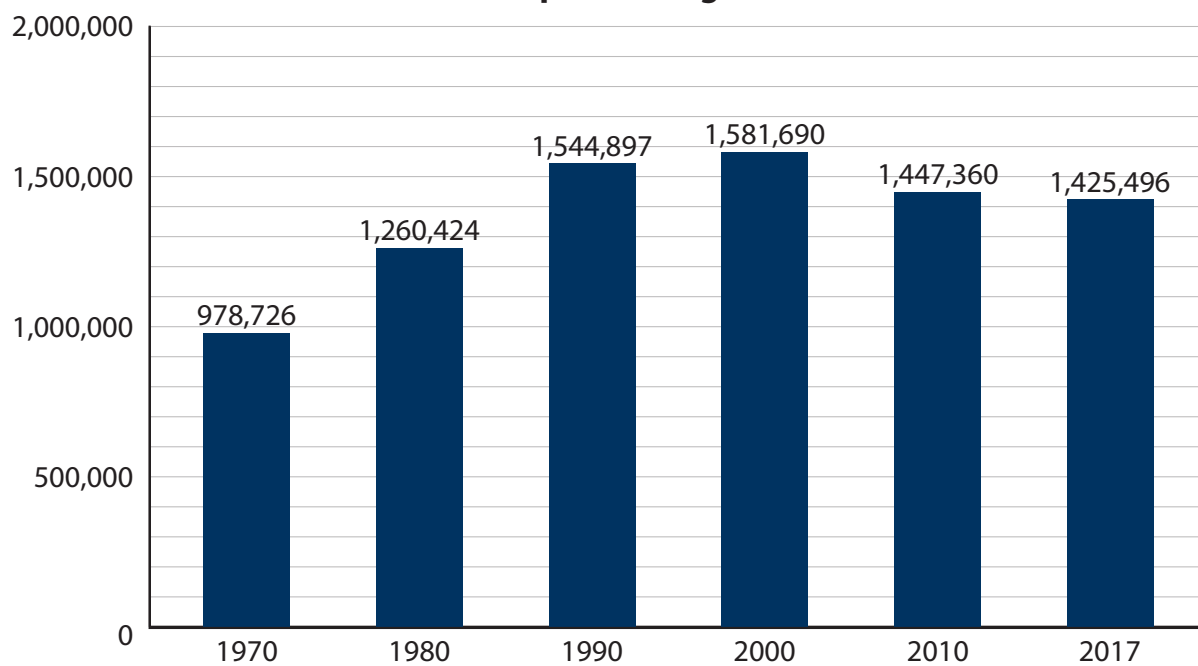


Labor Force Participation Rate – October 2018



Source: US Bureau of Labor Statistics

Wisconsin Population Ages 25 to 44





very tight labor market is producing a historically low supply of applicants ('not enough warm bodies') and that applicants at all levels frequently lack technical skills or general workplace readiness 'soft' skills. Especially quantity but also quality are critical workforce concerns that hamper the ability of some companies to thrive and grow.

- After strong growth from 1970 to 1990, peaking in 2000, the number of young state residents ages 25 to 44 has begun to shrink.
- Overall flat working age population growth – adding to concerns about the lack of workers are projections forecasting no net working-age population growth in the state through 2040.^{vii} In fact about 94 percent of the projected 800,000 net additional state residents will be age 65 and over.
- Working age population losses are projected to happen in many areas of the state, especially in the more rural counties. As found across much of the United States, there is no easy solution to the workforce supply crunch in Wisconsin brought on by demographic changes.
- Many interviewees also noted lower rates of workforce success among Wisconsin's poor, minority, and otherwise disengaged or disadvantaged populations. They cited the multiple barriers to job and career success that some groups face, and that more outreach is necessary to improve labor force participation and long-term employment for disadvantaged residents.
- Recruiting – many (though not all) business owners report difficulty bringing new employees into the state, citing either a negative image of Wisconsin or no image at all outside the state. Recruiting becomes even more difficult outside of Milwaukee and Madison.

Strengths and Weaknesses of Wisconsin's Workforce Development, Education and Training Systems:

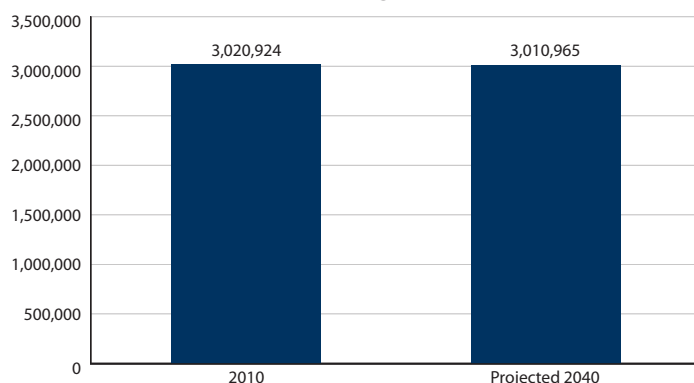
Strengths

- Wisconsin has proactively addressed the most pressing workforce, education and training issues facing its residents and businesses, often ahead of other states.
- The state has increased its workforce development funding in recent years.
- Wisconsin is a national leader in developing apprenticeship and youth apprenticeship programs.
- State agencies are making coordinated investments for talent attraction, particularly targeting military

veterans, UW system alumni, and residents of neighboring states.

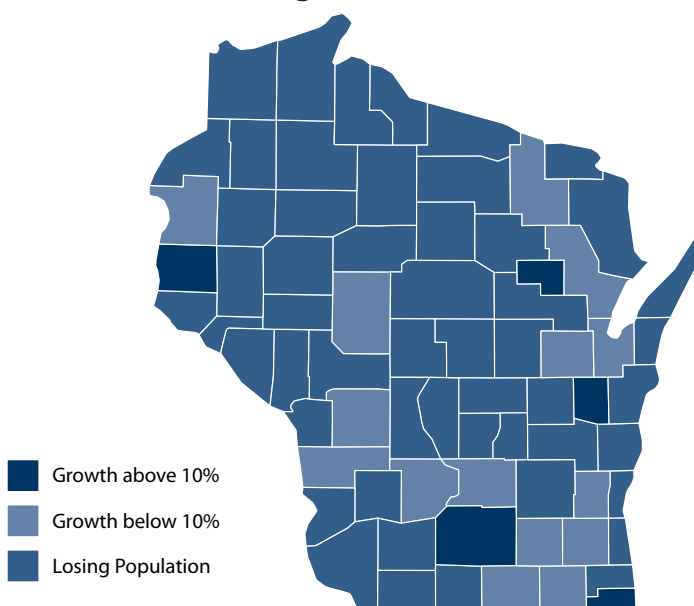
- According to the National Skills Coalition, the state gets positive marks in important skill policy areas such as integrating education and training; supporting stackable credentials; creating alignment of programs that provide a pathway for lower-income workers to move up to higher-wage positions; promoting industry sector strategies; and encouraging work-based learning.
- Demonstrated innovation in worker upskilling programs like Wisconsin Fast Forward which provides grants directly to businesses to improve their employees' skills.

Projected Working-Age Population in Wisconsin Ages 25-64



Source: Wisconsin Department of Administration

Projected Change in Working-Age Population Ages 25-64



Source: Wisconsin Department of Administration



Weaknesses

- Funding and programs come through a fragmented and confusing array of agencies, and multiple siloed federal and state funding streams. The state's \$386 million workforce budget for 2017 (federal plus state funding) involves eight different departments operating 38 programs.^{viii}
- In our interviews, many business leaders and workforce service providers noted that there needs to be more focus on improving work participation and outcomes for poor and minority residents of Wisconsin.
- Like almost all states, Wisconsin faces a middle-skill gap. The National Skills Coalition estimates that 55 percent of all jobs in the state require some education and training beyond high school (but not a four-year college degree), while only 48 percent of Wisconsin workers are trained to that middle-skill level.^{ix}
- Many interviewees bemoan an almost exclusive focus on obtaining a four-year college degree, with no other path viewed as having value. They believe that young people need exposure to a wider range of career paths, and increased awareness of career opportunities in Wisconsin.
- The National Skills Coalition also notes that Wisconsin lacks the job-driven financial aid policies that often enable students to afford focused, short-term training that is matched to job needs. These financial aid policies are particularly valuable for adult workers and part-time learners.

Governor's Workforce Investment Priorities:

The 2018 – 2022 Strategic Plan issued by the Governor's Council on Workforce Investment lists five priorities. These are:

1. *Increase educational attainment and make it affordable for all Wisconsin residents.*
Needs include more real-time skills development; a career pathway system based on real-time labor market data; a more nimble education system; and better information to help parents, students, counselors, and teachers make decisions that affect students' employability.
Goal: 60 percent of the adult population will have post-secondary credentials.
2. *Increase net migration to Wisconsin.*
Use the Think-Make-Happen campaign to target alumni, military veterans, and residents of neighboring states.
3. *Increase awareness and expand worker training*

programs, internships, and apprenticeships.

Provide more opportunities for individuals to learn through on-the-job training.

4. *Serve under-represented populations.*

Use targeted strategies for various groups including the ex-offender re-entry population, military veterans, low-income individuals, and people with disabilities.

5. *Improve access and understanding of workforce investment assets.*

In particular, create a better map of workforce assets and develop a dashboard for key performance indicators.^x

Education and Training Priorities of WMC:

Wisconsin Manufacturers & Commerce has a platform of education and training goals to enable economic growth across the state. Highlights of initiatives supported by WMC:

- Apprenticeships and internships give students hands-on experiences that lead to meaningful job opportunities. These students are also more likely to stay with an employer long term. Schools should be incentivized to partner with local employers, and UW System students should be required to have an internship in their field of coursework.
- Wisconsin should continue to expand dual enrollment opportunities so more students can earn college credits while in high school, without taking on student debt.
- Many students no longer have opportunities to explore technical education in school. School districts need to bring these vital classes back to expose students to broad career options.
- Having dedicated career counselors on staff would ensure that schools are able to help students sift through career options and make class choices accordingly.
- Wisconsin spends record amounts on K-12 education. New state money put into education should be spent on the priorities of increasing technical education, dual enrollment, and apprenticeship and internship opportunities.
- Wisconsin has led the nation in the area of parental school choice options since 1990, ensuring low-income students have options if their local public schools are failing them. The state must maintain and grow these options so that students everywhere have the ability to get a great education.



IMPROVING THE WORKFORCE PIPELINE & WORKFORCE QUALITY

Our conversations with Wisconsin business leaders and workforce experts, as well as our research on best practices nationwide, yields a consistent set of themes around the most pressing workforce issues and how to address them. Most workforce concerns – and potential solutions – fall within these six themes:

1. Attract and Retain Talent
2. Upskill Existing Workers
3. Improve Career Pathways
4. Promote Apprenticeships, Youth Apprenticeships, Internships, and other Work-Based Learning for Students
5. Promote Career Awareness
6. Reach Disconnected Groups

In addition, the importance of committed funding sources and the need to develop better workforce data collection, analysis, and reporting are topics occurring frequently throughout the above themes. This section will review the status of each theme in Wisconsin, explore national best practices, and make recommendations for the continued advancement of Wisconsin's workforce development system.

1. Attract and Retain Talent

Wisconsin is investing \$6.8 million in the THINK•MAKE•HAPPEN initiative, focused on improving net in-migration into the state. The messaging, outreach, and events of THINK•MAKE•HAPPEN are geared toward alumni of Wisconsin colleges and universities, residents of neighboring states, and military veterans separating

from the armed services. Most business leaders are aware of the program and supportive of it, though some express concern that it might have success in attracting salaried, white collar positions but the state also has great need for skilled trade and production workers. In any case, company officials realize that firms can have little impact on talent attraction individually and are wise to partner with broader regional and statewide initiatives. Wisconsin's economic development agency WEDC and the University of Wisconsin system's economic development office recently created a new Talent Initiatives Director position to help align talent and workforce efforts at all levels.

The veterans' recruitment campaign (with a \$1.9 million initial budget) is noteworthy in that it appears to be the most ambitious military outreach effort of any state in America. In addition to social media posts and online advertisements, a recruiting roadshow will be visiting military bases in seven states, Germany and Japan. Nationally, an estimated 200,000 to 250,000 people transition from active duty to civilian life annually.^{xii} The new Foxconn facility in southeastern Wisconsin is targeting veterans particularly, with a goal of hiring 3,000 vets.

Although Wisconsin is already a national leader in its commitment to talent attraction and retention, WMC members expressed support for even greater state-level funding for these efforts.

Many regions are ramping up their talent attraction and retention programs. A sampling of these:

7 Rivers Alliance Region – this area encompassing 14 counties in Wisconsin, Minnesota, and Iowa adopted the WISE Plan – Workforce Innovation for a Strong Economy – in October 2017. Noting that the region will need to attract and retain 1,500 to 2,000 workers annually in coming years, the WISE Plan includes components for talent recruitment, retention, and preparation. Recruitment strategies include messaging to specific groups, promotion of diversity and inclusion, welcoming new families, and promoting affordable housing. Retention strategies feature sharing of employer best practices, slowing the retirement rate of experienced workers, and developing public-private childcare partnerships.^{xiii}

FUEL Milwaukee – this community engagement organization focuses on integrating newcomers and young





professionals, and building new leadership in Milwaukee to create “a vibrant, inclusive community that is magnetic to talent.”^{xiv} FUEL Milwaukee hosts three to four events per month.

Momentum West – the regional economic development agency for western Wisconsin created a Regional Talent Initiative. Strategies include marketing local jobs to existing out-commuters who are working in Minnesota’s Twin Cities and ramping up job placement services and support services for under-represented groups in the workforce.^{xv}

Fox Cities Tour Talent Upload – the Fox Cities region brings young talent to the area through an annual Talent Upload – Fox Cities Tour. The area hosts undergraduate students with majors in computer science, engineering, and business from colleges and universities around the Midwest. The three-day program familiarizes students with the Fox Cities community and introduces them to major employers and career opportunities.^{xvi}

Among outreach efforts to military veterans entering the private labor force:

The Academy of Advanced Manufacturing developed by Rockwell Automation and ManpowerGroup aims to impact 1,000 veterans a year. After a training program in Milwaukee, the initiative pledges to offer all completers job opportunities at a variety of manufacturing firms, with wage potential of about \$50,000 a year. The “very intense” 12-week program is full-time (40 to 45 hours per week), and all participants are paid.^{xvii}

WiscJobsForVets.com, the state’s job site for veterans, now allows military veterans to search for jobs in Wisconsin by using military occupation codes known as MOS codes. Many veterans have highly marketable work skills, but are unsure how these translate to private-sector job requirements. The MOS code translator should allow

veterans to better match their skills with private-sector opportunities.

The UA Veterans in Piping Program is operated by the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry. Veterans in Piping is promoted in Wisconsin by UA Local 400 in Kaukauna and others. Veterans in Piping is an 18-week program for separating military, with 6 weeks in the classroom and 12 weeks of on-the-job training. There is no cost to veterans, with expenses paid by numerous sponsors across Wisconsin.

National Best Practices:

Focus the Message on Jobs and Career Opportunities.

Rather than broad, feel-good media about the attractiveness of a region, noteworthy programs get specific about economic opportunity. In the Research Triangle Region of North Carolina, the **Work In The Triangle** collaboration posts numerous job openings from its Twitter account each week.^{xviii} Atlanta’s **ChooseATL** initiative held ‘The Ultimate Job Interview’ in which contest winners received up to \$10,000, an expense-paid trip to Atlanta, and interviews with executives at some of Atlanta’s fastest-growing firms.^{xix} The **Springfield (Missouri) Business Development Corporation** won a 2017 award from the International Economic Development Council for its Talent Attraction Initiative. The Springfield organization has produced three targeted videos that highlight the depth and breadth of job opportunities in information technology, engineering, and medical careers.^{xx}

Offer Financial Incentives for Key Talent Needs.

In areas of need, particularly small towns and rural America, programs have long been in place to attract and retain professionals such as doctors, nurses, and teachers. For in-demand professional occupations in growing industries, places and companies are increasingly imaginative in designing financial incentives to fill key needs. The State of Oklahoma initiated the **Aerospace Industry Engineer Workforce Tax Credit** in 2009 to support one of the state’s strongest industry sectors. The program provides income tax credits over five years for both aerospace firms that hire engineers and the employees themselves. A recent review of the tax credit found that it had contributed to the hiring of 4,200 workers with average wages of \$80,000 each – about \$287 million in total wages. The study also showed that aerospace engineer employment had increased by 16.7 percent in Oklahoma since 2009, compared with a 2.6 percent increase for all other types of engineers.^{xxi}

A recent global survey by ManpowerGroup found that most U.S. employers think automation will increase, not decrease, headcount in manufacturing, but at a higher skill level.

*Rockwell Automation and ManpowerGroup
press release, June 13, 2017*



Focus on Foreign Immigrant Talent.

Some communities view the immigrant population – either potential or recent residents – as an untapped source of workforce talent. Research indicates that foreign-born citizens start new businesses and obtain patents at higher rates.

Recommendations

- Increase state funding for talent attraction and retention initiatives to make Wisconsin the unquestioned national leader in securing the state's future workforce.
- Craft incentive programs to attract various types of individuals: high-skill, middle-skill, and entry-level workers. Use DWD data to fine-tune the people and skills to be targeted.
- Continue to emphasize military veterans as a key target for talent attraction efforts.
- Increase coordination of efforts between employers and the public sector, and between local, regional, and state agencies, with goals of consistent messaging and reduced duplication of effort.
- Encourage businesses to join in efforts to recruit employees from other states and nations.
- Lead with messaging that focuses on jobs and career opportunities, including jobs for spouses. While lifestyle and amenities are important, research indicates that those considering relocation base decisions on the most practical considerations.
- Provide facts and honest opinion, with no fluff. Millennials in particular are data-driven and skeptical of anything that seems less than authentic.
- Increase regional efforts to encourage diversity and become more welcoming communities for foreign immigrants and other potential new residents.
- Consider financial incentive programs for the most in-demand occupations.
- Increase retention efforts such as engaging newcomers, improving the variety and affordability of housing, and place-making to build a more attractive community.

"Helping people upskill and adapt to this fast-changing world of work will be the defining challenge of our time."

*Jonas Prising
Chairman and CEO
ManpowerGroup*

model investment in worker skills. Wisconsin Fast Forward (WFF) provides customized skills training grants directly to employer firms. The state's total investment in WFF thus far is nearly \$30 million, with about \$25 million awarded via 264 grants as of September 2018. These grants affect 18,000 workers who have been trained or are currently in training programs.^{xxii}

Our business interviewees were aware and supportive of WFF. One perceived strength is the wide range of business types and sizes that have received training grants – with recent grants training 122 individuals at Nestle USA and two cheesemakers at Rosewood Dairy. In Cornell, Larson's Custom Cabinets used two grants totaling \$59,000 for production worker lean training and cabinet designer software training. Co-owner Travis Glaus says that the grants enabled the firm to "accomplish in a year what it probably would have taken us five years to do on our own."^{xxiii}

Wisconsin Fast Forward encourages, but does not require, business cooperation with technical colleges, connections with career pathways, increasing the self-sufficiency of low-wage workers, and providing industry-recognized credentials or course credits as part of training efforts.

In 2018, WFF announced a pilot grant program for businesses and workforce partners to create an Employee Resource Network. The goal of the Employee Resource Network pilot grant is to increase job retention for entry-level, disadvantaged, and at-risk employees with support services, general and technical skills training, and success coaching. For businesses, the hope is that the pilot will demonstrate reduced turnover, lower hiring and onboarding costs, and improved worker productivity.

^{xxiv} Across Wisconsin, private employers are encouraging employees to add additional skills. Schofield-based manufacturer Greenheck offers tuition reimbursement for

2. Upskill Existing Workers

Wisconsin Fast Forward, an upskilling grant program launched in 2013, has been hailed nationally as a



Jobs Requiring No Formal Education	Avg. Hourly Earnings 2018	2018 Jobs	2028 Jobs	Net New Jobs by 2028
Food Prep & Serving Workers, Including Fast Food	\$9.46	74,408	82,192	7,784
Janitors & Cleaners, Except Maids and Housekeeping	\$13.06	48,414	53,180	4,766
Laborers & Freight, Stock, and Material Movers, Hand	\$15.46	53,185	57,539	4,354
Construction Laborers	\$20.51	14,353	16,638	2,285
Landscaping and Groundskeeping Workers	\$14.19	17,624	19,767	2,143
Retail Salespersons	\$12.51	79,466	81,553	2,087
Cashiers	\$9.88	63,086	65,141	2,045
Waiters and Waitresses	\$10.53	43,214	45,086	1,872
Cooks, Restaurant	\$11.96	23,593	25,202	1,609
Farmworkers & Laborers, Crop, Nursery & Greenhouse	\$12.55	14,530	16,094	1,564

Jobs Requiring High School Credential	Avg. Hourly Earnings 2018	2018 Jobs	2028 Jobs	Net New Jobs by 2028
Personal Care Aides	\$11.15	63,688	84,129	20,441
Home Health Aides	\$12.16	5,131	8,893	3,762
Sales Reps Except Technical and Scientific Products	\$33.91	39,487	42,411	2,924
Maintenance and Repair Workers, General	\$19.60	35,640	37,703	2,063
Stock Clerks and Order Fillers	\$12.27	39,104	41,162	2,058
Receptionists and Information Clerks	\$13.64	21,808	23,548	1,740
Electricians	\$28.16	11,633	13,366	1,733
Social and Human Service Assistants	\$16.97	12,932	14,547	1,615
Sales Representatives, Services, All Other	\$26.91	17,050	18,549	1,499
Medical Secretaries	\$17.42	5,034	6,494	1,460

Jobs Requiring Post-Secondary, Non-BA	Avg. Hourly Earnings 2018	2018 Jobs	2028 Jobs	Net New Jobs by 2028
Medical Assistants	\$17.40	12,297	15,109	2,812
Heavy and Tractor-Trailer Truck Drivers	\$21.31	49,245	51,048	1,803
Teacher Assistants	\$13.81	26,540	28,233	1,693
Nursing Assistants	\$13.86	33,449	34,824	1,375
Computer User Support Specialists	\$24.51	12,906	14,265	1,359
Automotive Service Technicians and Mechanics	\$19.66	12,083	13,298	1,215
Licensed Practical and Licensed Vocational Nurses	\$21.21	7,808	8,925	1,117
Dental Assistants	\$18.49	6,016	6,862	846
Preschool Teachers, Except Special Education	\$12.71	11,631	12,433	802
HVAC & Refrigeration Mechanics & Installers	\$24.29	5,114	5,894	780



Jobs Requiring BA	Avg. Hourly Earnings 2018	2018 Jobs	2028 Jobs	Net New Jobs by 2028
Registered Nurses	\$33.27	56,487	61,244	4,757
Software Developers, Applications	\$41.14	16,245	20,304	4,059
General and Operations Managers	\$59.08	33,739	37,646	3,907
Market Research Analysts and Marketing Specialists	\$27.33	12,233	14,524	2,291
Accountants and Auditors	\$32.33	23,039	25,164	2,125
Financial Managers	\$62.89	8,655	10,293	1,638
Elementary School Teachers, Except Special Education	\$27.38	29,937	31,482	1,545
Business Operations Specialists, All Other	\$30.60	11,007	12,453	1,446
Secondary School Teachers, Except Special and Career/Technical Education	\$27.56	19,920	21,000	1,080
Management Analysts	\$37.80	11,394	12,473	1,079

Jobs Requiring Advanced Degree, Beyond BA	Avg. Hourly Earnings 2018	2018 Jobs	2028 Jobs	Net New Jobs by 2028
Postsecondary Teachers	\$35.02	27,753	29,213	1,460
Physicians and Surgeons, All Other	\$119.95	6,789	7,643	854
Nurse Practitioners	\$49.00	3,009	3,855	846
Physical Therapists	\$38.74	4,772	5,457	685
Physician Assistants	\$49.52	1,997	2,594	597
Lawyers	\$59.52	7,769	8,236	467
Healthcare Social Workers	\$24.62	3,247	3,711	464
Mental Health and Substance Abuse Social Workers	\$22.82	1,769	2,121	352
Occupational Therapists	\$33.97	3,259	3,608	349
Family and General Practitioners	\$116.51	2,463	2,803	340



workers seeking to advance their careers, as well as providing technical and soft skills training courses in partnership with nearby colleges.^{xxv}

Using data from Economic Modeling Specialists International (EMSI) we analyzed projected occupation growth by typical education level education. Beginning on page 15 are the top 10 occupations, by education level, that are projected to have the greatest growth by 2028.

Regardless of the formal educational credential required for entry, most jobs require – or at least employers expect – increased skills. Numerous research papers have explored the specific skills that are the most in demand. Based on our conversations with hundreds of employers over the past five years we believe that employers need employees with the following four sets of critical skills:



- **Personal Skills:** Honesty, integrity, responsibility, self-motivation, reliability, and a positive attitude
- **People Skills:** Communication, teamwork, empathy, sales, and emotional intelligence
- **Thinking Skills:** Problem solving, critical thinking, information management, applied learning, adaptability, creativity
- **Technical Skills:** Integration with technology, occupation-specific knowledge

National Best Practices:

Integrate a Variety of Skills in Training.

Upskilling efforts can involve many types of skills – core academic skills; behavioral ‘soft’ skills like dependability and communication; critical thinking; and job-specific technical skills. When workers have foundational gaps in reading and speaking English, or in math, these gaps can prevent them “from even being able to participate in occupational training opportunities” to improve their career prospects and their company’s productivity.^{xxvi}

Massachusetts’ tight labor market led to the development of a **Pre-Lean English for Speakers of Other Languages (ESOL)** program to help workers with limited English skills move up in manufacturing roles. Pre-Lean ESOL was created by the Massachusetts Manufacturing Extension Partnership, which primarily serves small- and medium-sized manufacturers, in cooperation with a non-profit called English for New Bostonians. A small power control systems manufacturer, Russelectric, noted that they couldn’t have operated such a program on their own: “It’s not practical for us to design and launch entire training programs.”^{xxvii}

Make Education and Training Financial Aid More Flexible.

Education funds like Pell Grants were created with full-time (usually four-year) college students in mind. Only a small amount of these funds currently reaches non-traditional learners such as adult workers getting additional training and those enrolled in short-term certificate programs.

More states are increasing the flexibility of student financial aid. In 2016 Virginia established the **New Economy Workforce Credential Grants**, with \$12.5 million over two years to fund non-credit training that leads to a credential in a high-demand field. During the program’s first year (in which about 3,100 people received a credential), the average student was 35 years old.^{xxviii}

Recommendations:

- Use Wisconsin Fast Forward grants to better connect business recipients with technical colleges

and other regional workforce service providers.

- Integrate WFF training grants with established career pathways in Wisconsin.
- Incentivize WFF recipients to provide worker credentials and licenses as an outcome of the training.
- Provide greater financial aid flexibility for adult workers and younger students to use financial aid for focused, short-term education and training needs.

3. Improve Career Pathways

Wisconsin also has relatively strong experience in providing career pathways, which can serve as roadmaps for going from basic education to more specific skill development, resulting in credentials or a degree. Career pathways can be valuable for middle school and high school students looking at promising occupational choices, or for lower-skilled adult workers looking to move up to better wages and greater responsibilities. Wisconsin offers career pathways based on each of the 16 nationally-recognized career clusters. The state’s technical college and workforce development leaders were praised in an evaluation by the Joyce Foundation for strongly promoting pathways as well as ‘bridge’ programs that move adult learners beyond basic education to post-secondary education and training for career skill development.^{xxix}

The Joyce Foundation’s analysis of career pathways and bridge program efforts lauded the fact that Wisconsin was able to leverage \$49 million in federal resources to expand career pathways and adult bridge initiatives. However, only a small portion of those in need have been served – reviewing Wisconsin, Minnesota, and Illinois, the Joyce report finds that less than five percent of adult learners in need were reached.^{xxx}

National Best Practices:

Concurrent Education and Training.

The **Advanced Manufacturing Career Pathways (AMCP)** program has long been a national leader, now active at 22 colleges and universities in nine southeastern and midwestern states. Toyota, Bosch, 3M and GE are some of the major employers involved. AMCP is a five-semester associates degree program that allows graduates to gain more than 1,200 hours of work experience per year and graduate debt-free. In a recent five-year period, 100 percent of graduates were hired by sponsoring or non-sponsoring firms.^{xxxi}

Student reactions in a recent article about the Advanced Manufacturing Technician track of AMCP in Missouri illustrate the benefits of integrating education with training and gaining early work experience:



- “My work and my school are connected; one is emphasizing the other.” (33-year-old student)
- “What I liked about the program was having a job while I was in school learning....” (20-year-old student)
- “Most kids look at manufacturing plants as dirty, nasty places to work. I guess it used to be. Nowadays, with the new robotics, it’s a great place to work and a great place to grow. We work as a team. We only have four guys on a shift at work. One person gives his opinion, another one will, and we find the best solution.” (19-year-old student)^{xxxii}

Align Resources and Relationships to Increase Pathways in Growing, In-Demand Fields.

After a 2016 White House summit around the need for 3.7 million new healthcare workers in America by 2026, the **Health Career Pathways Network (HCPN)** was piloted. The network, organized by the non-profit Hope Street Group, now operates at nine locations in seven states. HCPN strives to improve the sourcing, hiring, and advancement of healthcare talent with four key objectives:

- Reduced healthcare job vacancies
- Increased workforce diversity
- Decreased first-year turnover
- Increased number of entry-level employees who advance to higher-level occupations.^{xxxiii}

In the fall of 2017, Pennsylvania announced the **Manufacturing PA** program to support manufacturing career pathways throughout the state. Manufacturing is Pennsylvania’s third-largest industry and workers have an average salary of nearly \$60,000. Program components include training grants made directly to firms that coordinate with community colleges and technical schools; and new Industrial Resource Centers providing assistance to the state’s small- and medium-sized manufacturers.

Recommendations:

- Continue to strengthen links between the state technical college system (WTCS), Department of Workforce Development (DWD), and the state economic development corporation (WEDC) so that career pathways are fully integrated into adult education opportunities, student career awareness programs, and coordinated with Wisconsin Fast Forward grants.
- Provide the bridge programs and support services (such as transportation, housing, and childcare assistance) needed for adult workers to move up to higher-skill, higher-wage jobs.

- Make sure that all career pathways have multiple ‘entry’ and ‘exit’ points, making it easier for existing workers to become lifelong learners.
- Fine-tune pathways to match growing, high-demand occupations in each region of the state.
- Enhance the use of data collection and analysis to create more explicit goals for the number of Wisconsin residents accessing career pathways.

4. Promote Apprenticeships, Youth Apprenticeships, Internships, and Other Work-Based Learning for Students

Since the passage of the nation’s first apprenticeship law in 1911, Wisconsin has been a leader in apprenticeship and youth apprenticeship programs.^{xxxv} In an era when labor force participation for young people ages 16-24 has fallen sharply, work-based learning programs are viewed as increasingly important for developing the employee pipeline to replace the large number of Baby Boomer retirees.

In 2018, Wisconsin has about 13,000 active apprentices working with approximately 3,000 employers.^{xxxvi} The average age of an apprentice is 28.2.^{xxxvii} All apprentices in the state are paid for classroom time as well as on-the-job hours, and a typical apprentice earns \$161,000 over five years while accruing no debt.^{xxxviii}

“I was very excited at the age of 18 to start building my retirement account; not having a giant college debt has provided me with a platform to achieve my life goals.”

Wisconsin industrial machining youth apprentice and CNC Machining Registered Apprentice

- U.S. Dept. of Labor case study, August 29, 2018

Wisconsin also boasts the first youth apprenticeship program in America, beginning in 1991.^{xxxix} Youth apprenticeships require 450 hours (for a one-year program) to 900 hours (two-year program) of paid work time which can be accomplished before, during, or after school hours. Coursework is undertaken concurrently. In the 2016-2017



school year about 3,600 youth were participating. Of those in the last year of their program, 85 percent completed and received a state skill certificate.^{xi} In addition to these programs, a variety of other paid or unpaid student work-based learning opportunities (such as internships and co-op arrangements) are offered in the state.

Wisconsin is also blessed with non-profit organizations that promote work-based learning. In Milwaukee, the **Wisconsin Regional Training Partnership/BIG STEP** works as an intermediary to recruit, assess, and prepare individuals for apprenticeships and other work opportunities in manufacturing, construction, and emerging sectors. WRTP/BIG STEP focuses on assistance to under-employed, under-served, and under-represented individuals. A special emphasis is providing training and tutoring to prepare candidates for apprenticeship qualifying tests in skilled trades. Impact studies evaluating WRTP/BIG STEP have found that participants earn more than non-participants and are more likely to have jobs with benefits. The organization's work has also increased minority and female participation in the skilled trades.^{xlii}

National Best Practices:

Fully Integrate Work-Based Learning in Secondary Schools.

The small town of Strathmore (population 3,240) in central California is home to **Harmony Magnet Academy** and its award-winning **Academy of Engineering**. The Academy of Engineering's goal is to bring pathways for post-secondary education and successful careers in engineering to a student body that is mostly low-income (61 percent) and minority (75 percent). The Academy offers dual enrollment, Project Lead the Way-designed engineering courses, and 13 Advanced Placement courses. Work-based learning is incorporated into all four years of study.

With a broad coalition of businesses, government, and non-profit organizations supporting it, the Academy of Engineering has generated impressive results (*2015-2016 school year*):

- 100 percent of students participating in work-based learning
- 100 percent graduating high school
- 95 percent enrolled in post-secondary education
- 100 percent earning an industry-recognized credential.

Harmony Magnet Academy won a 2017 Excellence in Action Award from the national organization Advance CTE for its Academy of Engineering.^{xliii}

Promote Career Readiness as a Primary Statewide Goal.

At the state level, **Prepare Rhode Island** is one of the nation's most comprehensive plans to improve work and career readiness. Launched in 2017, the initiative strives to "close the gap between what [students] learn in school and what they need for high-demand jobs." Work-based learning is one of eight key elements of its strategic plan, along with employer engagement and outcome-focused accountability (Prepare Rhode Island issued an excellent baseline data report in 2018).^{xliii}

Increase State Funding for Apprenticeships.

The governor's 2018-2019 budget in Pennsylvania ups funding for apprenticeships and other work-based learning programs by \$7 million, with a goal to double the number of apprenticeships by 2025.^{xliiv}

Recommendations:

- Expand youth apprenticeships. Currently offered for 11th and 12th graders, former Governor Walker proposed extending opportunities to seventh and eighth graders (who might start at in-school fabrication labs rather than at a worksite). Provided that the activities are age-appropriate, achieving greater occupation and career exposure before 11th grade can benefit students and the workforce pipeline.
- Consider a state-level incentive program for businesses to provide paid college student internships.
- Improve bridges between youth apprenticeships (YAs) and registered apprenticeships (RAs). Wisconsin is already preparing 'crosswalks' to help students and businesses understand the similarities and differences between the two. Other ways to provide bridges as students move along their paths include: a) continually seeking to align curricula; b) providing RA credit for completing a YA; c) allowing YA completers to test out of some RA instruction; and d) giving YA completers preference on RA waiting lists.
- Incentivize firms to create high-quality apprenticeship programs. In Kentucky, the I.T. firm Interapt had difficulty recruiting tech talent into the state, so Interapt created its own immersive assessment and training program for Kentucky residents. Thirty-five people from the initial cohort completed the program, and were working at Interapt, Humana, GE and other Kentucky employers with salaries of up to \$80,000 within 15 months of being hired. The Kentucky Department of Labor adopted the program as a Registered Information Technology



Apprenticeship.^{xlv} Providing technical assistance and/or incentive grants could spur similar innovation by Wisconsin employers.

5. Promote Career Awareness

There was widespread agreement among interviewees around Wisconsin that student awareness of career opportunities (especially within their own region and own state) is improving. They also felt that it should be a priority to do more. Most business leaders and workforce partners believe that there is an over-reliance on the ‘mantra’ that all kids should get a four-year college degree. Others perceive a significant divide between educators and employers.

WMC Foundation has been active in career awareness efforts since 1982, with the **Business World** program that has served over 20,000 students. Business World strives to increase understanding of financial literacy, entrepreneurship, and free-market enterprise through summer programs at three college campuses and one-day events at high schools across the state.

A major change arrived in 2018 with all public schools mandated to begin providing academic and career planning services to all students in grades six through 12. Schools are using Career Cruising software, and in grades K-5 games like ccSpark! to engage children in career and life planning topics. Mandatory academic and career planning is hoped to add momentum to the many career awareness efforts underway in Wisconsin, such as:

Hendricks CareerTek – The Hendricks Family Foundation partners with the Greater Beloit Chamber of Commerce and others to provide a career center for Beloit youth offering health careers exploration, Dare to Dream events, and tutoring for middle and high school students.

Inspire Rock County – an online career and readiness platform designed to aid young people in southern Wisconsin. Key program components include matching students with business mentors in the Janesville and Beloit business communities, and highlighting job and career opportunities in the region.

Gold Collar Careers – the collaborative organization Manufacturing Works promotes advanced manufacturing careers in northwestern Wisconsin using the Gold Collar Careers tagline. The website offers videos for prospective employees to learn “what modern manufacturing is really like.” It boasts that most manufacturing education programs have a 100 percent placement rate for post-secondary program completers, and that graduates make “25 percent more money than their friends do in other businesses.”^{xlvi}

AriensCo STEM Support – Since 2007, the Ariens Foundation has supported the Brillion School District’s

K-12 STEM program. Ariens’ goal is to turn this small town into a “manufacturing powerhouse.”

Health Careers Summer Camps – five-day health profession summer camps for rising 11th and 12th graders are now offered at six locations around the state. The camps are sponsored by the Wisconsin Area Health Education Centers, local technical colleges and universities, and area healthcare firms. The overnight residential camp cost is heavily subsidized so that campers pay only a \$100 to \$150 confirmation fee.^{xlvii} A Native Students Health Careers Camp is specifically designed to provide health careers exposure to Native American students from largely rural areas.^{xlviii}

National Best Practices:

Targeting Students.

In rural southwest Virginia, **United Way’s Ignite Program** has affected over 29,000 students since 2016. The Ignite Program brings career awareness tools to every middle school and high school in the area, including: a) self-exploration and career planning software; b) classroom talks and regional employer tours; and c) a career expo for seventh graders. Ignite also provides a full range of skill development tools, such as project-based learning modules, soft skills curriculum, and job internships.^{xlix}

The **Be Pro Be Proud** initiative highlights Arkansas’ aging skilled workforce and the opportunities this creates for younger people. Be Pro Be Proud’s website suggests that young Arkansas residents can get ahead by “Ditching Stereotypes and Grabbing Hold of Success,” boasting of jobs that pay \$16,000 more than the state average. In addition to the website with skilled trade jobs that can be searched by ZIP code, the program includes a traveling Workforce Workshop that visits schools and organizations across the state. Be Pro Be Proud is led by the Associated Industries of Arkansas and the state chamber of commerce.ⁱ

Targeting Teachers and Counselors.

The National Career Development Association (NCDA) is providing new tools to help counselors and teachers to be conversant on career awareness topics. Counselors can apply to obtain the new **Certified School Career Development Advisor** credential. The goal is for K-12 counselors to “help prepare students for meaningful work and high-demand careers,” and to enter the job market “with skills, knowledge, and credentials to be competitive.”ⁱⁱ Training is available online and on-site. The NCDA has also developed a 120-hour **Facilitating Career Development Curriculum** for K-12 teachers.

The Iowa Governor’s STEM Advisory Council has supported paid **Iowa STEM Teacher Externships** since



2009. The full-time, six-week externships are for secondary teachers of STEM subjects and pay up to \$4,800 per teacher. Worksite hosts include a wide variety of manufacturing, agriculture, and energy firms as well as state and local environmental agencies.^{lii}

Recommendations:

- Put an increased focus on providing career counselors for middle and high school students to expose them to the broad array of career and post-secondary options.
- Promote expansion of regional websites, geared toward students and parents, that highlight career opportunities and the skills needed. Sites like Inspire Rock County and Arkansas' Be Pro Be Proud offer compelling information about technical occupations close to home that provide strong wages, benefits, and the ability to complete initial education and training requirements debt-free.
- Offer more teacher internship or work exposure programs. Increasingly, teacher internships are paid and thus attractive summer activities. Some programs offer placements for counselors and school administrators as well.
- Improve communication and coordination between the business community and educators. The Future Wisconsin Project can play an important role as facilitator between the two groups.

6. Reach Disconnected Groups

Wisconsin's tight labor market cannot afford to have segments of the population - in a region or statewide - that participate in the workforce at a significantly lower level. Disconnected segments being targeted for higher-level participation in Wisconsin include:

Under-employed, lower-skilled, and unemployed citizens - many of whom have barriers to overcome to be more successful in the workplace.

Ex-offenders – Those released from prison or soon to be released, a category of people that has historically found it very difficult to obtain steady employment.

Examples of initiatives to reach disconnected groups around Wisconsin are detailed below.

Unemployed, Under-Employed, and Lower-Skilled Workers:

The Joseph Project – mentioned by business leaders and workforce experts across the state as an exemplary program for improving basic skills and preparing adults to locate and maintain permanent employment. Milwaukee-based Joseph Project is led by pastor Jerome Smith and supported by U.S. Senator Ron Johnson. The short-term classes focus on life skills ranging from teamwork to time management to conflict resolution. The number of people impacted thus far has been relatively small, but Smith is undertaking a \$6 million fundraising campaign to redevelop a vacant building into a general education development center.

Forward Service Corporation – FSC is a non-profit founded in 1979 that now operates in 46 counties in Wisconsin. FSC provides programming to assist individuals in the areas of education and training, jobs, transportation, and housing.

National Best Practice:

Train low-skilled workers to meet critical regional needs.

In the Tidewater region of Virginia, Hampton Roads Marine Skilled Trades began in 2012 after a study showed a critical need for entry-level marine tradesmen. The region's community colleges and Newport News Shipbuilding developed a Marine Skills Trades Training Collaborative which delivered four new, short-term courses. Following 80 to 120 hours of intensive training, 363 previously unskilled area workers were placed in permanent jobs, and the turnover rate for new hires was reduced by 70 percent. The curriculum, program, and materials were later provided to the Virginia Ship Repair Association for its members' use. The Hampton Roads Marine Skilled Trades program won a National Council for Workforce Education Exemplary Program award in 2015.^{liv}

Ex-Offenders:

Both businesses and government agencies are increasing efforts to reach criminal offenders and prepare them for work – even while they're still in prison. Former Lieutenant Governor Rebecca Kleefisch and former Governor Tommy Thompson have recently commented on the need for better results in moving ex-offenders into the workforce.^{lv} Among current initiatives in Wisconsin are:

Windows to Work – each workforce development board around the state operates a program to train inmates in state and county correctional facilities. Recent numbers show around 580 participants. In 2017, 88 percent of eligible participants obtained employment.^{lvi}

Work-Release at Stoughton Trailers – a January 2018 *New York Times* article profiled a 28-year old man serving a sentence for burglary and firearm possession who entered a voluntary work-release program with leading manufacturer Stoughton Trailers in Dane County. Earning \$14 an hour, the man was named Employee of the Month while still incarcerated. After being released, he



bought a car with the money he saved in prison and has been approached by another company about training for a salaried position.^{lvii}

Milwaukee Area Technical College (MATC) CNC

Training – MATC participates in training programs for still-incarcerated individuals. The *Milwaukee Journal Sentinel* recently detailed the CNC operator training program taken by a 34-year-old man who then landed work at tool maker Snap-on's Milwaukee plant. It describes a rigorous regimen of full-time work during the day and CNC machining classes at night, but one that gave the man focus and a positive direction. Now making \$25 an hour at Snap-on, the man has been able to invest in two rental properties, as well.^{lviii}

The *Journal Sentinel* article cites data indicating that in-prison education and training program completers had a 43 percent reduced chance of being reincarcerated. And given the high cost of keeping someone in prison, it is not surprising that another study showed a net benefit of \$24,600 per participant for in-prison education and training programs.^{lix}

One MATC employee (and former convict) who has worked extensively with the Windows to Work program notes that ex-offenders have great need of comprehensive support services after release. With a job comes resources and structure, but “without other supportive services, they can't do it.”^{lx} Important services include counseling, increasing basic life management skills, and housing assistance.

National Best Practice:


Subsidized Employment with Support Services.

The City of Washington, D.C.'s **Project Empowerment** has a 15-year track record of helping ex-offenders with multiple barriers to employment, including homelessness and substance abuse in addition to criminal records. Project Empowerment begins with a three-week course on life skills and the building blocks of successful employment. The city department operating the program then works with local companies to place participants in up to six months of subsidized work experience. Participants are provided with wrap-around support services during this time. In a recent year, 421 individuals obtained unsubsidized employment at the end of the subsidized work period, with wages averaging \$4.00 per hour above D.C.'s minimum wage. Project Empowerment won a 2017 award from the National Association of State Workforce Agencies.^{lxi}

Recommendations:

- Bring job readiness and employability training for disadvantaged adults to all parts of the state,

based on successful service models such as the Joseph Project and Forward Service Corporation. Nearly all business interviewees mentioned the need to reach unemployed and under-employed adults across Wisconsin, and they view poor and minority residents as overlooked, valuable assets. Scaling short-term classes to improve life skills and work readiness for under-employed Wisconsin residents will improve the workforce pipeline. Tailoring this training to regional job demand would be a smart enhancement.

- Increase participation numbers in the state's Windows to Work program for prison inmates. With 23,000 people incarcerated around Wisconsin, the current total of several hundred program participants (less than three percent of the prison population) is not doing enough to improve their prospects after release, or to solve the state's critical labor crunch.
- Build a coalition of support services for ex-offenders. Workforce agencies and businesses should work more closely with non-profit organizations to provide comprehensive support services for ex-offenders working in Wisconsin, particularly during their first year after release. 



FINAL THOUGHTS

In every topic covered in this report, consistent or increased funding and more robust collection and analysis of data could improve program performance and better address Wisconsin's workforce pipeline challenges.

Data:

Wisconsin has been recognized for using data to make more relevant funding decisions to technical colleges. For part of their funding, technical schools are now able to pick from several outcome measures, including the number of programs that incorporate industry-validated curricula and credentials. This is an improvement over old formulas that simply rewarded colleges based on the number of degrees awarded.

Other states are showing greater commitment to data-driven decision-making. In **Pennsylvania**, the State System of Higher Education has developed a statewide workforce characteristics report and a job-demand/college degree gap analysis report. It also published these analyses for every region in Pennsylvania and for 16 colleges and universities in the state system. The Pittsburgh-area Partner4Work workforce board has engaged Carnegie-Mellon University to improve workforce data collection and evaluation. In 2017, **Montana** completed a comprehensive study comparing college degree programs with labor force outcomes (including wage data). Montana's two-year and four-year colleges used the report to change program offerings, adding new programs in healthcare and other sectors based on regional demand. The collaboration required to gather and synthesize this data also improved relationships between the business community and colleges, resulting in greater emphasis on expanding customized training and apprenticeships.^{lxii}

To create relevance and excitement within the business community, the Future Wisconsin Project could create a dynamic data dashboard that would continuously benchmark progress toward jointly developed goals.

Funding:

If workforce is the primary challenge facing the business community and the entire economy, and with demographics indicating that this is likely to continue for years to come, all stakeholders in Wisconsin will need to step up their commitment to improving the workforce pipeline. Success will likely require greater investment from state government, regional economic development organizations, individual businesses, and philanthropy. Pooling resources, increasing the flexibility of funding streams, and

evaluating outcome-based data can help to target these resources to the most effective initiatives.

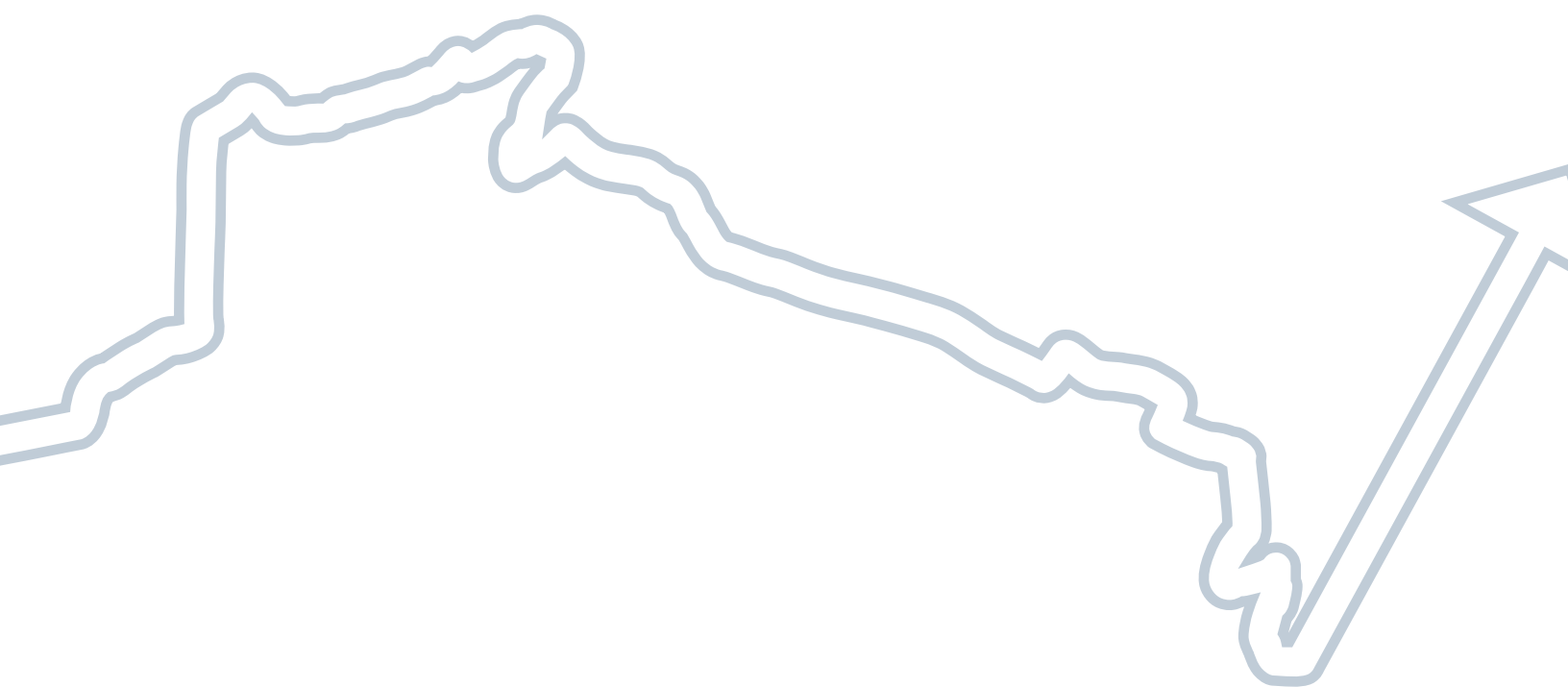
The Future Wisconsin Project's Role:

To help Wisconsin continue to improve training and education efforts that strengthen the workforce pipeline, the Future Wisconsin Project can play five important roles:

1. **Facilitator** between the business community, education and training providers;
2. **Advocate** at the state level to ensure that lawmakers understand the magnitude of workforce issues impacting Wisconsin, advancing innovative policy solutions to address them;
3. **Scorekeeper** to track successes and setbacks in these efforts;
4. **Communicator**, sharing best practices by businesses and organizations around Wisconsin and the nation – especially with smaller businesses that often have fewer resources;
5. Being the **voice of opportunity** so that students, parents, teachers and counselors are aware of the great business and career opportunities available in each region of the state. 



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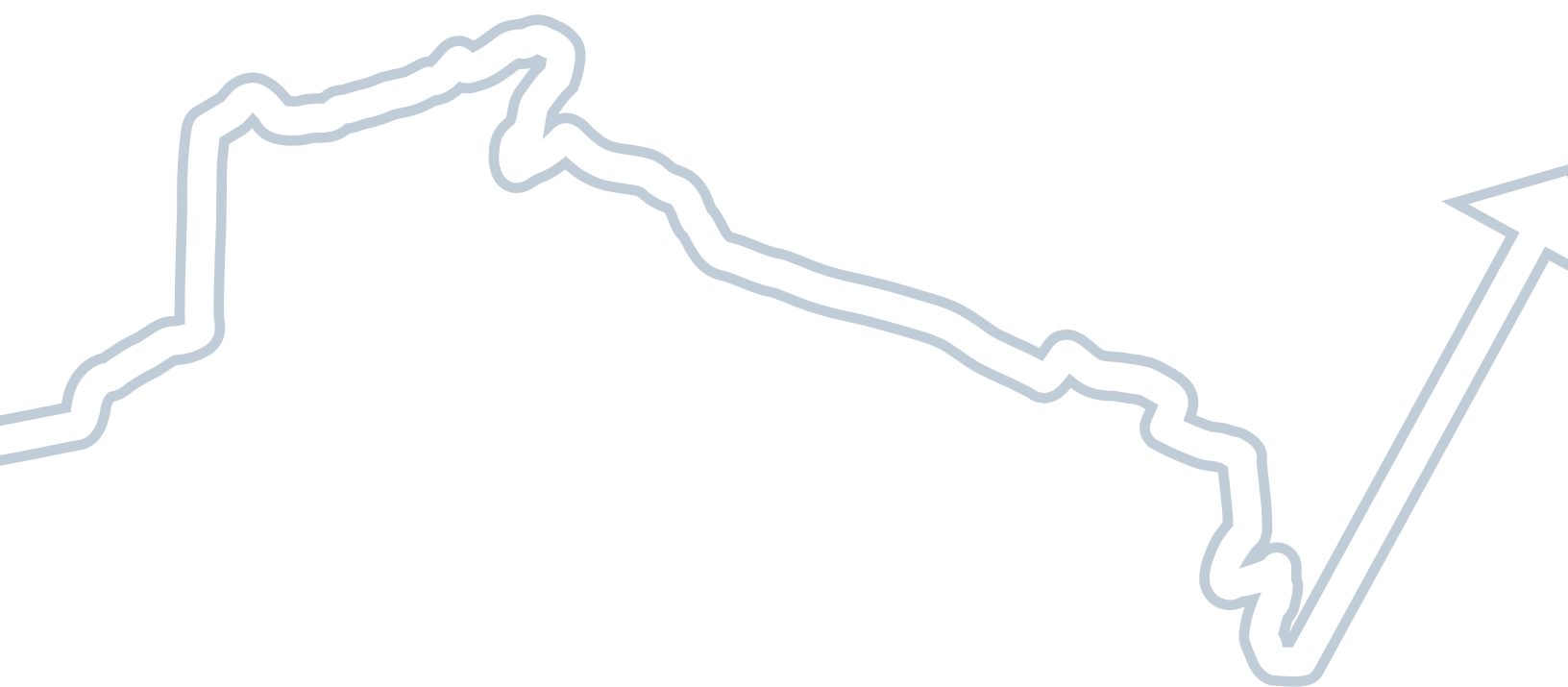
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