OUTAGAMIE COUNTY BOARD MEETING October 8, 2019

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RESOLUTION NO. 72—2019-20

Supervisor Iverson moved, seconded by Supervisor T. Thyssen, for adoption.

RESOLUTION NO. 72—2019-20 IS ADOPTED.

19/8/2019 7:45:43 PM RoliCall Systems, Inc. Res. No. 72--19-20

Outagamie

County 1861 1861	VOTE RESULTS: Passed By Majority Vote		
YES: 31 NO:	ABST	AIN: 0 ABSENT: 5	
1 - THOMPSON	Yes	19 - MARCKS	Yes
2 - MILLER	Yes	20 - THOMAS	Yes
3 - RENTERIA	Yes	21 - T. THYSSEN	Yes
4 - PATIENCE	Yes	22 - HAGEN	Yes
5 - GABRIELSON	Yes	23 - KLEMP	Yes
6 - KONETZKE	Yes	24 - IVERSON	Yes
7 - HAMMEN	Yes	25 - NOOYEN	Yes
8 - N. THYSSEN	Yes	26 - DUNCAN	ABSENT
9 - KRUEGER	Yes	27 - CULBERTSON	ABSENT
10 - LAMERS	Yes	28 - STURN	Yes
11 - DILLENBERG	Yes	29 - BUCHMAN	Yes
12 - MC DANIEL	Yes	30 - WOODZICKA	Yes
13 - WEGAND	ABSENT	31 - CLEGG	Yes
14 - DE GROOT	ABSENT	32 - VANDERHEIDEN	Yes
15 - PETERSON	Yes	330'Connor-Schevers	Yes
16 - SCHROEDER	Yes	34 - RETTLER	Yes
17 - CROATT	ABSENT	35 - MELCHERT	Yes
18 - SPEARS	Yes	36 - SUPRISE	Yes

RESOLUTION NO.: 72-2019-20

TO THE HONORABLE, THE OUTAGAMIE COUNTY BOARD OF SUPERVISORS

LADIES AND GENTLEMEN:

MAJORITY

Forward Analytics, a Division of the Wisconsin Counties Association, has recently published three articles regarding population and workforce trends in Wisconsin:

- "Falling Behind: Migration Changes and State Workforce"
- "An Economic Evolution: Job Growth, Pay and Education since 2012"
- "Millennial Wisconsin: Is Wisconsin Attractive to This Generation"

All articles conclude that Wisconsin has a significant problem in attracting, retaining and growing the millennial population especially those millennials with families. The documents provide detailed analysis of these population trends and the changing educational requirements for 21st century employers.

Why should residents of Wisconsin pay attention to this information? Within the next few years, 40% of Wisconsin's workforce will be comprised of millennials. Over the next few years, baby boomers will comprise less and less of the workforce and by 2030 only 5% of the workforce will be comprised of this age group.

The articles provide detailed data and charts for Wisconsin population changes. The articles point to the concern that millennials in the workforce are not replacing baby boomers as they age and retire. Since 2008, the replacement of the older workforce has not been maintained resulting in severe labor shortages throughout the State in many occupations. For example, the age cohort of 15 to 19 year olds in the year 2000 was 407,000. In 2015, the population of this same group, now 30 to 35 in age, declined by 36,000 to 371,000. The articles indicate that many people in this age group moved to other states.

Another issue identified in the reports is the changing level of education required to meet the requests of employers. In 2012, 25% of new jobs required post-secondary education. From 2012 to 2018, 38% of all new jobs required post-secondary education. During the same time period, there was very little growth in low paying, low skilled occupations.

The articles did not address the reasons for the population and labor force changes. The purpose of the articles was to sound an "alarm bell" for policy makers and leaders in Wisconsin. The impact on State finances and future services, especially in rural areas, will be dramatic if this trend continues for millennials and the next generation.

Wisconsin's Governor and legislators need to get to work on this issue and understand the reasons behind the out-migration of the millennial population. They need to do everything possible to understand why people are leaving the State and why people are not moving to Wisconsin for available jobs. Based on this information, our leaders need

Resolution No. <u>72—2019-20</u>

Page 2

1 2	to make changes to encourage families to stay here and also develop a plan to encourage families to move
3	
4 5 6	to Wisconsin from other states. Leaders should also work on initiatives for retaining young people in Wisconsin as they graduate from high schools, technical schools and
7 8	universities.
9	These population trends can be reversed. There are states in the Upper Midwest and regions within our State, including Outagamie County, which have retained and/or grown
11 12 13	this important younger population group. Our state leaders should learn from their success stories and work together on this significant issue.
14	NOW THEREFORE, the undersigned members of the Legislative/Audit and Human Resources
15	Committee recommend adoption of the following resolution.
16	BE IT RESOLVED, that the Outagamie County Board of Supervisors does urge the Wisconsin
17	Governor and legislators to research and understand the reasons behind the out-migration of the
18	millennial population as well as why people are not moving to Wisconsin for available jobs as detailed
19	in the attached three articles published by Forward Analytics regarding population and workforce trends
20	in Wisconsin, and
21	BE IT FURTHER RESOLVED, that the Outagamie County Board of Supervisors does urge the
22	Wisconsin Governor and legislators to make changes to encourage families to maintain Wisconsin as
23	their residence as well as develop a plan to encourage families to move to Wisconsin, and
24	BE IT FINALLY RESOLVED, that the Outagamie County Clerk be directed to forward a copy
25	of this resolution to the Outagamie County Board Chairperson, Wisconsin Counties Association, all
26	Wisconsin Counties, and the Outagamie County Lobbyist who shall present a copy of this resolution to
27	the Wisconsin Governor and the state legislators representing Outagamie County.
28	Dated this 8th day of October 2019
29 30	Respectfully submitted,
31 32	LEGISLATIVE/AUDIT & HUMAN RESOURCES COMMITTEE

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Executive Summary

An Economic Evolution

ince 2012. Wisconsin has experienced both strong job growth and an unemployment rate falling to record lows. These trends have been well documented. Less studied has been the kinds of jobs created during this period. Occupational data from the U.S. Bureau of Labor Statistics (BLS) for 2012 and 2018 show that new jobs were more likely to be on the higher end of the pay scale and disproportionately required post-secondary education.

Annually, BLS reports information on the number of jobs and their pay distribution for more than 800 occupations. In 2012, Wisconsin businesses and governments employed about 264,000 people in 121 occupations that on average paid \$68,600. Employment in those occupations increased 16% to over 305,000 by 2018. Growth was driven by large increases in the number of engineers, computer and software occupations, as well as doctors and other high paying medical occupations.

At the other end of the pay scale, about 264,000 workers were employed in 15 occupations that paid an average of less than \$20,100 annually. During 2012, the number of jobs in these occupations declined 0.2%, a sharp contrast to the large gains at the top of the pay scale.

Though not as stark, a similar pattern is found among occupations in the middle of the pay scale. Generally, the number of jobs in higher paying occupations grew faster than the number in lower paying ones.

When occupations are grouped a second way, this pattern is confirmed. During 2013-2018, BLS organized occupations into STEM (science, technology, engineering, and mathematics) and non-STEM groups. During 2013, the number of jobs in STEM occupations increased 13.4%, compared to less than 5% for non-STEM occupations. Wisconsin's growth in STEM occupations was 18th fastest among the states and Washington D.C.

The occupational data also show that new jobs increasingly require postsecondary education. In 2012, just under 25% of Wisconsin jobs required an associate degree or more. However, 38% of the new jobs created during 2012-2018 required those levels of education.

The BLS figures for Wisconsin show a growing economy that is slowly evolving into one in which jobs require more education and skills. They show an economy in which job growth is not occurring in low paying occupations, but rather in those further up the pay scale. The numbers reinforce Wisconsin's need to invest wisely in education at both the K-12 and postsecondary levels, to ensure all residents have the education and skills to successfully compete in an evolving economy.

An Economic Evolution

Job Growth, Pay & Education Since 2012

Dale Knapp, Director

ver the past six years, employers—both public and private—added more than 180,000 workers to their Wisconsin payrolls. The 6.7% increase during 2012-2018 was the third highest rate of growth since 2002, trailing only the 2010-2016 and 2011-2017 periods.

Coincident with that growth was a decline in the unemployment rate from 7% to under 3%. A rate around 4.5% is generally considered the "full-employment rate" since there are always some workers between jobs. For the most part, every Wisconsinite who wants a job has one.

Yet, these numbers say nothing about the kinds of jobs that are being created and raise interesting questions. Do the new jobs pay well, or are they at the lower end of the pay scale? What skills or education are needed for these new positions?

Occupational data from the U.S. Bureau of Labor Statistics (BLS) shows Wisconsin's economy slowly transitioning to higher skilled, higher paying jobs. During 2012-2018, occupations in high paying STEM¹ fields expanded faster than other occupations. More generally, high paying occupations grew significantly faster than lower paying ones. Finally, the number of jobs in occupations that typically require a postsecondary degree outpaced those requiring less education.

PARSING JOB GROWTH

It is relatively easy to answer the question, "How many jobs did Wisconsin add during the past six years?" Quarterly employment figures (QCEW) from BLS show Wisconsin employers added 181,114 jobs during 2012-2018.

It is more difficult to answer the question, "What kinds of jobs were created?" Some analysts examine industry growth to shed light on this question. If industries with relatively low average pay added jobs faster than high-paying ones, then it might be assumed that many of the new jobs were low paying.

This type of analysis is informative but has its drawbacks. Within each industry there are a variety of occupations. The manufacturing industry employs production workers, supervisors, upper management, and front office workers. A large manufacturer may employ engineers and accountants as well. Some of these occupations pay more than others.

An industry study might find that the manufacturing sector expanded, but it would say little about how many of the new jobs were on the production lines, how many were in management, and how many were in the front office.

This kind of detail is available in a BLS database of occupations. BLS' Occupational Employment Statistics (OES) program provides estimates of the number of jobs and various measures of pay for more than 800 occupations.

Unlike the QCEW, which is based on quarterly reporting from nearly all employers, the OES figures are compiled from six surveys of employers over three years. Each survey is completed by about 200,000 employers nationally, so the annual estimates are a compilation of information from about 1.2 million firms.

The data from OES are typically used to compare occupations across states in a single year. Since

¹ Science, Technology, Engineering, and Mathematics.

annual estimates are derived using three years of surveys, BLS cautions against using them to explore annual changes, or to compare two years that are within the three year survey window.

However, they can be used (cautiously) over longer time periods. Recently, economists at the Federal Reserve Bank of Richmond² used 2010 and 2014 OES data to show that high- and low-wage occupations in their region grew faster than middle salary ones. The Federal Reserve Bank of Minneapolis found a similar pattern in Minnesota³ between 2007 and 2014. Here, occupational changes in Wisconsin during 2012-2018 are examined from several angles.

OCCUPATIONAL GROUPS

Analysis of more than 800 occupations can be cumbersome. To make the information more manageable, BLS groups occupations based on

Table 1: Technology & Construction Occupations Lead 2012-2018 Job Change by Occupational Group, Wisconsin Rank Among States & D.C.

Job Change

	100 CHARGE		
	Number	Pct.	Rank
Increased More Te	ton 30%		
Computer & Marhematical	17,510	29.2%	1.2
Construction & Extraction	21,230	25.3%	13
Community & Social Service		23.7%	9
Personal Care & Service	21,440	22.3%	
Farming, Fishing, & Forestry	9.10	20.1%	20
Increased 10% to	19.9%		
Architecture & Engineering	7,420	16.5%	10
Business & Financial Operations	20,100	16.5%	30
Legal	1,700	13.6%	15
Production	36,830	12.3%	12
Installation, Maintenance, & Repair	10,160	10.1%	27
Increased <	10%		
Management	9,920	8.5%	34
Healthcare Practitioners & Technical	13,260	8.4%	37
Education, Training, & Library	11,730	7.7%	14
Food Preparation & Serving Related	16,910	7.4%	42
Transportation & Material Moving	3,070	1.5%	41
Sales & Related	1,130	0.4%	34
Declined			
Life, Physical, & Social Science	-130	-0.6°%	36
Office & Administrative Support	-7,169	-1.7%	3.2
Arts, Design, Enr., Sports, & Media	-4S0	-2.0%	45
Protective Service	-1,260	-2.4%	
Bide & Grounds Cleaning/Maint	2,000	2.4%	45
Healthcare Support	-14,390	-16.8%	51

"work performed, skills, education, training, and credentials." For example, the "production" group include machinists, assemblers, welders, bakers, and butchers, among others. The 22 groups, sorted by 2012-2018 job growth, are listed in Table 1.

The types of occupations that grew fastest during 2012-2018 varied widely in duties as well as education and training requirements. In five groups, jobs increased more than 20%, with high tech computer and mathematical occupations leading the way. Wisconsin's 29.2% increase ranked 12th highest among the 50 states and Washington D.C.

More than 21,000 construction and extraction jobs were added here, a 25% increase over six years that ranked 13th highest nationally. Since most construction projects have an architectural and/or engineering component to them, the nearly 7,500 jobs (16.5% increase) added in architecture and engineering was not surprising.

When gains are viewed in total jobs added rather than percentage increases, production occupations led the way, expanding by more than 36,000 jobs. As a manufacturing state, Wisconsin has a disproportionate number of these kinds of jobs. In 2018, they accounted for 11.8% of all jobs in the state, nearly twice the national average of 6.3%—only Indiana had a greater share.

The large decline in healthcare support jobs was primarily due to an 11,400 reduction in the number of home health aides. However, that reduction was offset by an additional 31,000 personal care aides, which are in the personal care and service group. These two occupations perform similar tasks, with the main difference being that home health aides can provide a few more services and must complete formal training.

Also falling by more than 1,000 were jobs in building and grounds, cleaning, and maintenance occupations, protective services, and office and administrative support.

Educational requirements varied widely among the occupational groups growing the fastest. Computer, mathematical, architecture, and engineering jobs typically require at least a four-year college degree. Many construction occupations

^{2 &}quot;Finding a Job: Higher-Skilled and Lower-Skilled Workers in Demand," Federal Reserve Bank of Richmand, May 2016. 3 "Down the robbit hole of occupational job growth," Federal Reserve Bank of Minneapolis, July 2015.

⁴ BLS Standard Occupational Classification User Guide

require no formal education beyond high school. Instead, the industry often relies on apprentice-ships and other forms of on-the-job training.

STEM JOBS

Growth by occupational group provides one perspective on job changes. But occupations can be sorted in other ways that give additional context. BLS identifies a group of STEM occupations that include obvious jobs such as computer systems analyst, engineer, and scientist. But the group also includes STEM-related managers and STEM-related sales occupations. These data are available for 2013 and later.

With the state's unusual number of production occupations, it is not surprising that Wisconsin is not considered a high-tech state. In 2013, 5.4% of Wisconsin jobs were considered STEM by BLS, ranking 29th nationally.

However, the state has made progress since then. During 2013-2018, these occupations increased 13.4%, more than the national average (11.4%) and 18th fastest among the states and Washington D.C. (see Figure 1). That growth allowed the state to edge up to 27th in the share of jobs in STEM occupations. Non-STEM occupations grew less than 5% over the five years.

The growth differential indicates that some of the new jobs were on the high end of the pay scale.

During 2013-2018, occupations in science, technology, engineering, and math grew 13.4% and 18th fastest in the nation.

STEM jobs pay more than \$77,000 on average, compared to an average of \$45,000 for all other occupations.

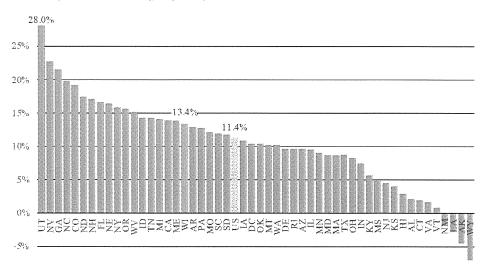
A BROADER LOOK

The STEM analysis indicates that at least some of the new jobs added paid well. However, the grouping is too broad to draw conclusions about changes along the entire spectrum of jobs. It compares approximately 5% of occupations (STEM) to the remaining 95%.

Growth By Average Pay

To address this broader question, occupations were sorted from lowest to highest paying, based on 2012 average pay. The occupations were then

FIGURE 1: Wisconsin Outperforms on STEM Occupations
Percent Change in Science, Technology, Engineering, and Mathematics Jobs, 2013-2018



During 2012-2018, the number of jobs in occupations that paid an average of \$73,000 or more grew 16%, significantly more than lower paying ones.

combined into 10 groups (deciles⁵) with approximately the same number of jobs in each.

When sorted and grouped this way, it appears that during 2012-2018, high-paying occupations generally grew at a faster rate than lower paying ones. This was clearly true when comparing the 1st and 10th deciles.

In 2012, there were 15 occupations that paid less than \$20,100 on average. As a group (decile 1), the occupations accounted for about 264,000 jobs that paid an average of \$18,880. During 2012-2018, the number of jobs in these occupations declined 0.2% (see Figure 2).

There were also 264,000 jobs in 121 occupations that paid an average of \$68,600 or more in 2012 (decile 10). By 2018, the number of people employed in these occupations increased 16% to over 305,000. Growth was driven by large increases in the number of engineers, computer and software occupations, as well as doctors and other high paying medical occupations.

Studies of other regions for prior years showed growth at both the high and low ends of the pay scale. This more recent analysis for Wisconsin shows occupations at the top of the pay scale significantly outperformed those at the bottom.

In the eight deciles between these extremes, that pattern held to a degree. For example, job growth in the second and third highest paying groups (deciles 8 and 9) was about 9% and exceeded nearly all of the groups paying less.

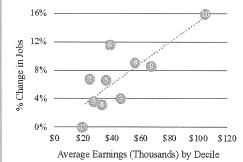
The exception was decile 6, the collection of occupations that paid an average of \$36,000 in 2012. The number of jobs in these occupations expanded almost 12% over the period.

Occupations in decile 7 were another example of how the pattern was less than perfect. These jobs paid an average of \$43,000 in 2012 and expanded just 4% over six years—a rate that lagged growth in three of the six deciles paying less.

Caution should be used when interpreting these numbers. The analysis tells us that, as a group, occupations that generally paid more often grew faster than those that paid less.

Obviously, workers in each occupation are paid differently depending on experience, education, and other factors. Many of the jobs created during this period were likely entry level, paying less than the occupational average. To shed some light on this, occupations were re-sorted based on wages at the lower end of each occupation's pay scale.

FIGURE 2: High-Wage Jobs Growing Faster? Job Growth by Average Wage (Thousands), 2012-2018



*Numbers indicate decile based on 2012 average pay

By 10th Percentile

For each occupation, BLS reports pay at various points on the pay scale, including at the 10th percentile. That is the pay level at which 90% of job holders earn more. It better approximates the pay for someone just starting his or her career.

Occupations were sorted based on this wage and combined into 10 deciles. Because the wage used here is at a percentile, an average for each group cannot be calculated as was done above. Instead,

⁵ Decile 1 is comprised of the lowest paying occupations, decile 10 has the highest paying ones. Each decile has a different number of occupations, but is comprised of about 264,000 jobs.

ranges for hourly wage define each decile (see Figure 3). For example, the second decile contains 30 occupations with 10th percentile wages ranging from \$7.77 to \$7.94 per hour.

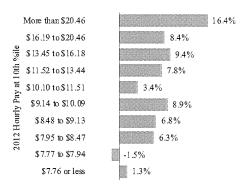
The growth pattern that emerges is similar to the one using average pay. Job changes at the high end of the distribution significantly outpaced those at the bottom, which changed little over six years. Occupations in which 10% of the jobs paid \$7.76 per hour or less increased 1.3% during 2012-2018, while those paying from \$7.77 to \$7.94 per hour declined 1.5%.

At the high end, jobs with 10th percentile pay above \$20.46 per hour rose more than 16%, mirroring the pattern observed using average pay.

For occupations in the middle of the wage scale, growth was slightly greater at the high end (8.4% and 9.4%) than at the low end (6.3% and 6.8%).

Again, the overall relationship was less than perfect, but there was a general pattern of higher paying occupations growing faster than lower paying ones during the past six years.

FIGURE 3: Growth Higher At Top of Wage Scale Job Growth by 10th Percentile Hourly Wage, 2012-2018



BY EDUCATION

Generally, high paying occupations require more education than their counterparts on the lower end of the pay scale. The analysis above suggests that the demand for college graduates is growing. The OES data can shed light on that question.

In addition to job numbers and pay estimates, BEA reports the typical entry level educational

The largest increase in job numbers during 2012-2018 was in occupations that typically required a high school diploma.

requirements for each occupation.⁶ For this analysis, occupations were sorted and grouped by educational requirements. For each education level, job growth was calculated both on a percentage basis and by total jobs added (see Figure 4 on page 8).

The largest increase in job numbers during 2012-2018 was in occupations that typically required a high school diploma. Wisconsin added more than 73,000 jobs in these 277 occupations, from 1.12 million jobs to 1.19 million.

The 159 occupations that typically require a bachelor's degree expanded by about 58,000 jobs, from 494,000 to 552,000. Occupations in which jobholders typically have some college but no degree or a postsecondary non-degree award increased by approximately 20,000 jobs from 247,000 to 267,000.

When job growth is reported in percentage terms, a different picture emerges. Occupations requiring a postsecondary degree up to a master's added jobs at rates significantly higher than those not requiring a degree. This is an indication of an economy shifting to greater education and skill requirements for its workforce.

The number of jobs in occupations requiring an associate or bachelor's degree grew more than 11% over six years. Jobs in occupations requiring a master's degree increased 15%. However, Wisconsin has only 43,000 jobs in those occupa-

⁶ While a particular education level may be typical for an occupation, it may not be required. For some occupations, work experience may be a substitute for formal education.

⁷ These are certificates that require some post-secondary education. Occupations in this category include, nursing assistants, EMTs and paramedics, and hairdressers, among others.

The number of jobs in occupations requiring a postsecondary degree increased about twice as fast as those requiring a high school diploma, at most.

tions, compared to over 550,000 in occupations requiring a bachelor's degree.

According to OES figures, Wisconsin had fewer college professors in 2018 compared to 2012, which drove down employment in occupations requiring a PhD or professional degree.

Jobs that have no educational requirement increased just 2.7%, while those requiring a high school degree climbed 6.6%.

IN SUM

Over the past six years, Wisconsin job growth has been strong, helping drive the unemployment rate to record lows. While there often seems to be a view that most of the new jobs are at the lower end of the pay scale, occupational data from 2012 and 2018 contradict that. Over those six years, many of the new jobs are at the higher end of the pay range.

In raw numbers, production occupations added the most jobs, but computer, mathematical, architecture, and engineering jobs increased at faster rates. Thus, these "high-skill" occupations are accounting for a growing share of the jobs in the state.

This transition is confirmed by looking at the education typically needed to enter each occupation. In 2012, just under a quarter of Wisconsin jobs typically required an associate or higher degree. However, 38% of new jobs created over the ensuing six years required those levels of education.

The analysis here may underestimate the increasing skill requirements of new jobs. For example, most production jobs in manufacturing are classified as requiring a high school diploma. However, production lines are becoming technologically advanced, and the skills required for workers in these jobs are much more advanced than a decade ago due to technological advances.

The recent growth patterns documented here reinforce Wisconsin's need to continue investing in education, both at the K-12 and at the postsecondary levels. They also highlight the need to ensure everyone leaves school—whether that is high school or a postsecondary institution—with the education and skills required in a changing economy.

As worker shortages in Wisconsin continue, the emphasis on skills and education will continue to grow. Is Wisconsin prepared for that challenge?

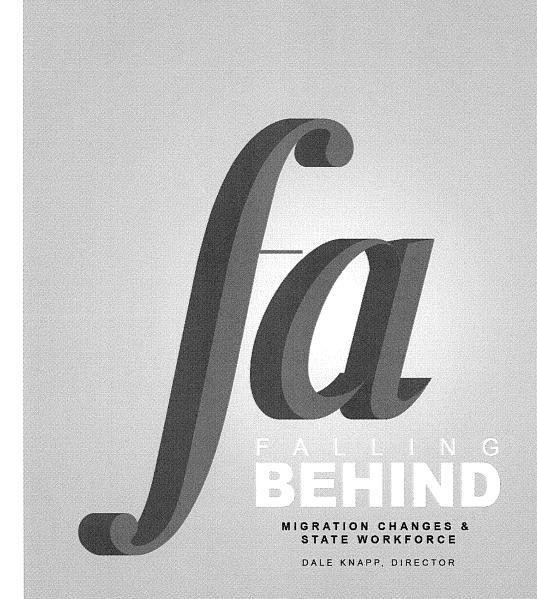
FIGURE 4: Jobs Increasingly Require Post-Secondary Degree Job Growth by Education Typically Required for Occupation, 2012-2018



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Executive Summary

Migration Changes & State Workforce

ith unemployment at record lows, Wisconsin businesses are facing a worker shortage that could persist for decades. The reason? The state does not have a enough young people to replace retiring baby boomers over the next 10 to 15 years and migration patterns have not shifted for the better.

The ability of a state to naturally grow its workforce over time can be measured by comparing the number of residents under 16 years of age to the number who are 50 to 64 years of age. Many in this older group will likely leave the workforce over the ensuing 15 years and be replaced by those in the younger group. The larger the ratio, the greater the state's ability to grow the labor force.

For example, Wisconsin had 1.75 residents under 16 for each resident 50 to 64 years of age in 1990, and the state's workforce expanded almost 17% over the next 15 years. By 2000, this ratio had fallen to 1.42 young people per resident near retirement, and the labor force expanded just 4.1% during 2000-2015. At 0.87 in 2017, this long-term indicator points to a shrinking labor pool over the next 15 years.

To grow its labor force, Wisconsin will need to attract workers from other states. However, the state has not fared well in attracting key population groups since 2010. In fact, the state's migration patterns began shifting after 2000 and have only worsened among key age groups since.

Since at least 1990, Wisconsin has lost young people as they age from their early twenties into their late twenties. That pattern continued during 2010-2015 with the state losing almost 30,000 of these young people, many recent college graduates.

The state has typically recouped those losses by attracting people in their thirties, forties, and even fifties. For example, during 2000-2005, the state experienced a net outflow of about 25,000 young adults, but added over 40,000 residents in the older groups. However, during 2010-2015, the state not only lost 30,000 young adults to other states, it also lost population among those in the older groups. This partly explains the state's current labor shortage.

The recent net loss of residents in their "family formation" years creates a second, long-term problem for the state. Those moving into the state who are in their late twenties to early fifties often bring with them children, who will be part of the future workforce. Indeed, during both 2000-2005 and 2005-2010, the state added more than 40,000 children from migration.

However, during 2010-2015, net migration of children to the state totaled fewer than 10,000. This large drop in the net migration of children portends trouble for long term workforce growth in Wisconsin.

Falling Behind

Migration Changes & State Workforce

Dale Knapp, Director of Research and Analytics

isconsin is facing an economic "good news, bad news" situation. On the positive front, nearly everyone in the state who wants a job has one. In 2018, the state's unemployment rate averaged 3.0%, the lowest rate in at least 40 years.

The bad news is that historically low unemployment is a challenge for growing companies that need an ever-expanding supply of workers. With so few out of work, there is not a labor supply for these companies to draw upon.

Barring a major recession, the situation is not likely to change anytime soon. As the Wisconsin Taxpayers Alliance explained in both 2004 and 2014, retirement of the state's baby boomers combined with declining birth rates will stall labor force growth over the next 20 years. Without the ability to "naturally" increase the workforce, growth must come from one of two sources: higher labor force participation or migration of workers from other states.

In this report, we examine Wisconsin's success, or lack of success, in both of these possible labor sources. First, we briefly outline the state's workforce challenge.

A DEMOGRAPHIC ROADBLOCK

The labor force consists of residents 16 or older who are either working or looking for work. Its size is affected by a variety of factors. For Wisconsin and most other states, the main driver over the past 40 years has been a growing population. In particular, the size of generations entering the workforce has generally been larger than those exiting. That is now changing.

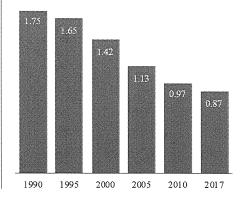
Insufficient Replacements

Between 1950 and 2017, Wisconsin's birth rate fell from 23.9 births per 1,000 residents to 11.2 per 1,000. This meant that at some point, there would be fewer people entering the workforce than leaving it. That has been the case for the past decade.

This phenomenon is illustrated by comparing the under 15 population to those ages 50 to 64. Over 15 years, many in the older group will likely retire and be replaced in the workforce by those in the younger group, who become working age during that time. With declining birth rates, the younger group becomes too small to fully replace the older group.

In 1990, Wisconsin had 630,000 residents ages 50 to 64, many who would have retired by 2005. They were replaced in the workforce largely by the 1.1 million residents who were under 15 in

Figure 1: Workforce Replacement Rate Falling Ratio of Under 15 to 50-64 Year Old Population



1990. With more than enough replacements (1.75 young people for every 1 person near retirement, see Figure 1 on page 3), the state's labor force was able to grow almost 17% during 1990-2005. Positive migration rates also contributed to this growth.

By 2000, this "worker replacement rate" had fallen from 1.75 to 1.42 (1.1 million residents under 15 compared to 790,000 people ages 50 to 64). During the ensuing 15 years (2000-2015), the state's workforce expanded just 4.1%.

By 2010, Wisconsin's long-term demographic roadblock was clear. The state had fewer young people than residents nearing retirement: 1.10 million people under 15 and 1.14 million residents between 50 and 64. With a worker replacement ratio of 0.97, the only way for the workforce to grow during 2010-2025 was increased workforce participation or migration from other states. Since then, the situation has deteriorated further. In 2017, Wisconsin's worker replacement rate stood at 0.87.

Declining Participation

With too few young residents to replace future retirees, Wisconsin might look to higher labor force participation rates (LFPR) to grow its workforce. In fact, rising labor force participation, particularly among women, contributed to workforce growth during the 1970s, 1980s, and 1990s.

Figure 2: Workforce Participation Falling % 16 Or Older in Labor Force, 1977 to 2017



Table 1: Workforce Participation by Age 2000 & 2015, Population and Labor Force (Millions)

	2000			2015		
Age	Pop.	Labor Force	Rate	Pop.	Labor Force	Rate
16 to 19	315	210	66.5	309	159	51.4
20 to 24	344	298	86.5	419	334	79.6
25 to 34	681	602	88.4	715	623	87.1
35 to 44	891	817	91.7	649	578	89.0
45 to 54	717	628	87.5	818	706	86.3
55 to 64	462	291	63.0	792	550	69.4
65+	620	89	14.4	851	140	16.4
Total	4,030	2,935	72.8	4,553	3,090	67.9

However, Wisconsin's participation rate has been declining since the late-1990s (see Figure 2). Since 1997, participation has dropped from almost 75% of the working-age population to under 69%, near its 1982 level. Over the past several years, the rate has ticked up slightly, something to be expected in a labor-shortage environment.

Can that uptick last? Understanding the reasons for the decline helps answer that question.

Two factors explain the drop. The first is a general decline in workforce participation at all ages under 55. As Table 1 shows, participation rates fell among most age groups during 2000-2015. This broad decline accounted for about one percentage point of the 4.9 percentage point drop during these years.

A larger factor was the aging of baby boomers. In 2000, this generation was roughly 35 to 54 years of age and totaled more than 1.6 million residents, almost 40% of the working-age population. At these ages, participation rates approach or exceed 90%. By 2015, baby boomers were 50 to 69 years of age and their participation in the workforce dropped significantly—under 70% for those 55 to 64 and about 15% for those 65 or older.

The shift of a large segment of the population from high to low participation affects the overall rate. In fact, change in the sizes of all age groups, each with a different participation rate, accounted for more than 60% of the overall decline in Wisconsin's LFPR.

While greater workforce participation can be part of the solution to Wisconsin's workforce dilemma, achieving that will be difficult. Even if rates for each age group returned to 2000 levels and Wisconsin's population evolved according to recent state forecasts, the state's LFPR would fall about four percentage points by 2025. If rates remained near current levels, the decline would be greater.

With too few young people to replace future retirees and a likely struggle to increase workforce participation, Wisconsin must turn to migration to grow its labor pool.

ATTRACTION AND RETENTION

Census Bureau population estimates by age can be used to examine Wisconsin's ability to attract and retain those of working age. The estimates are comprised of five-year age groups, allowing the tracking of relatively small cohorts over five year periods.

For example, those 30 to 34 in 2010 were 35 to 39 in 2015. If, after accounting for deaths, the population of the 2015 group was greater than the 2010 group, then Wisconsin experienced net in-migration among this age cohort. If the reverse was true, there was net out-migration.

This approach identifies age groups comprised of individuals who find Wisconsin relatively attractive, and groups that find other states more attractive. It does not provide information on where residents moved to or where new residents came from.

Overview

Before delving into the narrow age groups, it is helpful to take a broad look at the migration of those who were 15 to 59 years old in 2010, compared to those of similar ages in prior years. In 2010, Wisconsin had 3.49 million residents who were 15 to 59 years of age. Five years later, it had 3.41 million residents ages 20 to 64. In other words, the size of this critical workforce cohort declined by 78,571 people. There were approximately 47,618 deaths among this group. The remaining decline of 30,953 people was a net out-migration of residents (see Figure 3).

This decline is similar to 2005-2010, but is a major shift from 20 years earlier. During 1990-1995,

Wisconsin's demographic makeup will make it difficult to increase labor force participation over the next decade.

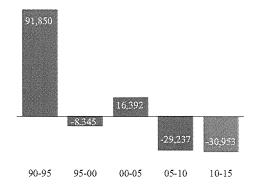
a similarly-aged cohort grew by 91,850 due to net in-migration from other states or countries. During 2000-2005, the state also added to this group, though the number was less than 17,000.

A Shifting Age Pattern

Throughout the 1990s and during 2000-2005, migration to and from the state followed a distinct pattern. The state lost young people after they graduated from high school and during their twenties. Wisconsin made up for these losses by attracting young families—essentially adults in their late twenties through their forties, and sometimes fifties.

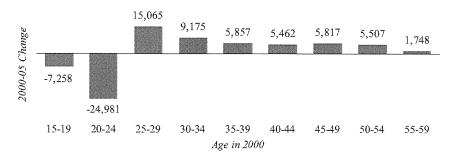
That pattern is illustrated in Figure 4 on page 6. During 2000-2005, Wisconsin lost, on net, a little more than 32,000 young people as they aged from 15-24 years of age to 20-29 years of age. However, the state had sufficient in-migration

FIGURE 3: Wis. Losing Working-Age Population Net Migration as 15-59 Year Olds Age to 20-64



¹ Decennial census years (1990, 2000, 2010) have the most accurate population figures. Intervening years are estimates. The desire to include census years limits our analysis through the 2010-15 period.

FIGURE 4: Wisconsin Gained Among Most Population Groups During Early 2000s Net Migration Among Various Age Cohorts, 2000-2005



among each of the seven older age groups to compensate for the loss of young people.

This pattern of losing young people and gaining those in their thirties and forties continued during 2005-2010, with a twist. The state lost more young people than during the previous five years and added fewer "families." The result was the net loss shown in Figure 3 on page 5.

During 2010-2015, Wisconsin's migration pattern shifted in several ways. First, the state gained among recent high school graduates, adding more than 10,000 of these young people as they aged into their college years (see Figure 5), reversing a 20-year pattern of net out-migration.

Second, while Wisconsin added among those in their late twenties and early thirties, the gains were minimal. Net in-migration totalled just 197 in the former group and 2,463 in the latter group.

Third, the state experienced net out-migration among each of the five older age groups studied.

This is a reversal of a long-term pattern of adding to these age cohorts. The end result was a net loss among the 15-59 year old working age group.

A closer examination of key age groups highlights some troubling patterns.

College-Age Young People

A growing workforce begins with attracting and retaining as many young people as possible. Historically, the state has struggled keeping residents as they aged from their early twenties into their late twenties, many recent college graduates.

That pattern continued during 2010-2015. During those five years, the state lost, on net, nearly 30,000 (7.7%) of these young people, more than six times the loss of any other age group studied. The drop was slightly worse than in the 2000-2005 and 2005-2010 periods; declines in both were about 25,000 people (see Figure 6).

Both the 2005-2010 and 2010-2015 cohorts are part of the millennial generation, while the 2000-

FIGURE 5: Wisconsin Losing Among Most Population Groups Net Migration Among Various Age Cohorts, 2010-2015

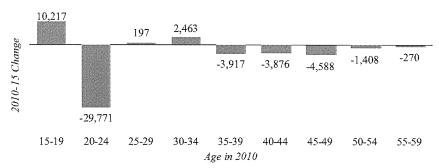
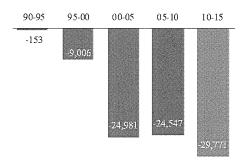


FIGURE 6: Recent College Grads Leaving Net Migration as 20 to 24 Year Olds Age to 25-29



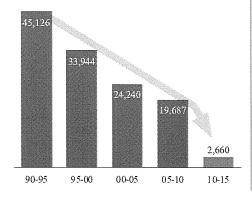
2005 group is the youngest of Generation X. By 2025, these three cohorts plus the youngest millennials, many who were still in college in 2015, will comprise more than 40% of the workforce. Attracting and retaining them is critical, and it appears Wisconsin has significant work to do on this front.

Young Families

By age 25, post-secondary education is completed for most young people and they are beginning careers. Some are, or will soon be, starting a family. Both career and family considerations affect movement of those ages 25 to 34 and those 35 to 49.

Attracting and retaining residents of this age is important for two reasons. First, adding young families immediately adds one and sometimes two individuals to the workforce. Second, these families often bring to the state children, or have

FIGURE 7: Gains Slowing Among Young Families Net Migration as 25-34 Year Olds Age to 30-39



children after arrival. The children of today will comprise a significant part of tomorrow's workforce.

Historically, Wisconsin has been successful at attracting people 25 to 34 years of age. During 1990-1995, Wisconsin had net in-migration of more than 45,000 in this cohort. Over the ensuing five years, the gain approached 34,000 (see Figure 7).

Net in-migration among this important group declined during 2000-2010. During the latter half of that decade, it was less than half what was seen in 1990-1995.

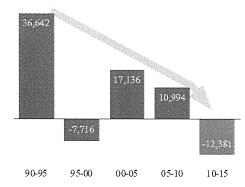
Over the most recent five years studied, Wisconsin experienced a net in-migration of fewer than 3,000 among this group.

A similar downward trend has occurred with those 35 to 49 years of age, many of whom are also working and raising families. Significant in-migration in the early 1990s turned to fewer gains during both 2000-2005 and 2005-2010 (see Figure 8).

However, while Wisconsin continued to add to the 25 to 34 year old cohort during 2010-2015, it lost to other states or countries more than 12,000 of those who were 35 to 49 years of age in 2010.

The short-term impact of the changing migration patterns of these two groups is obvious. The state currently has fewer residents of working age than if prior patterns had continued. This is part of the explanation of the tight labor market Wisconsin is now experiencing.

FIGURE 8: Migration of "Family-Aged" Turns Net Migration as 35-49 Year Olds Age to 40-54



Fewer than 10,000 children migrated to Wisconsin during 2010-2015, down from 43,000 in each of the two prior fiveyear periods.

However, as mentioned, there is a long-term impact as well. These are the ages at which families are started and children are raised. Net in-migration of these young people can also mean a net in-migration of children, who are the state's future workforce.

In the 1990s, net migration added between 54,000 and 70,000 children to the state (see Figure 9). During both 2000-2005 and 2005-2010, net in-migration of children was about 42,000.

With the state adding fewer than 3,000 of those 25 to 34 years of age and losing more than 12,000 of those 35 to 49 during 2010-2015, the number of children added from migration dropped below 10,000. Fewer children moving here today negatively impacts our future workforce.

Nearing Retirement

Those 50 to 59 years of age are well into their careers, with some nearing retirement. Many have

FIGURE 9: Net In-Migration of Children Falling Net Migration as Those Under 16 Age to 5-19

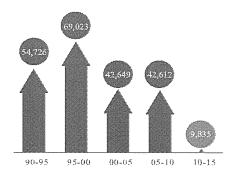
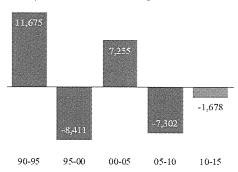


FIGURE 10: Wis. Losing Experienced Workers Net Migration as 50-59 Year Olds Age to 55-64



been working for more than 30 years and bring significant "human capital" to the workforce. Usually, they are in their peak earning years. Wisconsin's success in retaining and attracting this cohort has been mixed.

Gains during 1990-1995 and 2000-2005 were offset by losses during the second half of each decade. During 2010-2015, Wisconsin lost just under 1,700 of these experienced workers.

IN SUM

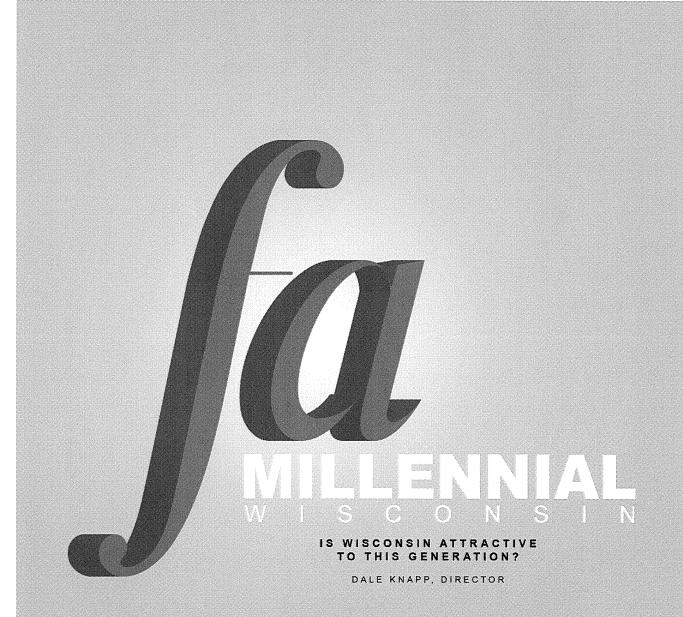
Wisconsin is at a critical juncture in terms of its workforce. Unemployment is at record lows and the populous baby boom generation is retiring. The pool of current residents who will be replacing them is insufficient to grow the labor force over the next 15 years or more.

Shifting migration patterns during 2010-2015 raise concerns about future workforce growth. Wisconsin continues to lose young people as they age from their early twenties to late twenties. Historically, these losses have been overcome by gains in families headed by those 25 to 49 years of age. However, during 2010-2015, the state was a net loser of residents in this age group.

Moreover, the decline in young families translated to smaller gains in the number of children added to the state's population rolls. Historically, Wisconsin has gained significant numbers of children through migration. During 1990-2010, increases averaged about 50,000 in each five-year period. During 2010-2015, the state added fewer than 10,000 children. These are the workers of the future, and Wisconsin needs more of them.



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Millennial Wisconsin

Executive Summary

or decades, baby boomers drove labor force changes, both nationally and in Wisconsin. Now, as they retire, they are being replaced by millennials, a group that will approach 40% of the workforce over the next few years. The challenge for Wisconsin, and other states, is to attract and retain this group. Recent data from the U.S. Census Bureau shows Wisconsin is struggling with this group.

During 2000 to 2015, Wisconsin lost more than 31,000 older millennials (those born during 1981-85) as they aged from 15 to 19 years of age to 30 to 34. Net gains were seen in only six counties: Dane, St. Croix, Milwaukee, Sauk, Outagamie, and Brown.

As group, 20 rural counties in the north experienced a 35% reduction in older millennials. Rural counties in southern and central Wisconsin experienced a 24% drop.

The state also lost among millennials born between 1986 and 1990 as they aged from 15 to 19 years of age to 25 to 29. During 2005-15, their numbers fell by more than 57,000. Over 10 years, only two counties - Dane and Milwaukee - added to this cohort. The size of this group declined 41% over 10 years in the rural north and 31% in the rural south.

The youngest millennials were born during 1991 through 1995. They were 15 to 19 years of age in 2010 and 20 to 24 years of age in 2015. During those five years, the state added about 9,000 to this cohort. The gains were almost exclusively in counties with four year UW campuses. The unanswered question for Wisconsin is: can the state retain these young millennials as they age into their late twenties and early 30s? If their older counterparts are indicative, that will be a challenge for Wisconsin.

Millennial Wisconsin¹

Is Wisconsin Attractive to This Generation?

Dale Knapp, Director of Research & Analytics

¹This report appeared in the April issue of the Wisconsin Counties magazine

or decades, baby boomers drove labor force changes, both nationally and in Wisconsin. As recently as 2006, they accounted for nearly 40% of the labor force. Now, as they retire, their impact is waning. Baby boomers currently account for less than one-fourth of the workforce, a percentage that will drop to under 5% within 10 years.

Baby boomers are being replaced by millennials, those born between 1981 and 1997. This cohort accounted for about a third of the national workforce in 2016 and will approach 40% by 2030.

While states, counties, and cities sought baby boomers in the 1970s, 80s and 90s, they now need millennials to maintain and grow their workforces.

How is Wisconsin faring on this front? Census Bureau figures show the Badger State has not done well in attracting and retaining older millennials. However, among the youngest in this generation, many who have just finished college, the state is holding its own. That said, it remains to be seen if Wisconsin will be able to retain these young people as they age into their late twenties and thirties. Without them, Wisconsin will have difficulty growing its workforce and its economy in the coming decades.

THE FRAMEWORK

To track the movement of millennials, we used age-group population estimates from the Census Bureau. Each age group consists of five ages (e.g., those 15 to 19 years of age). Over five years, each age group ages into the next group. Those who were 15 to 19 years of age in 2010 were 20 to 24 five years later.

Thus, if the size of the 20-to-24 year old group in 2015 was larger than the 15-to-19 cohort in 2010, there was a net inflow of this group into the state. If the reverse is true, there was a net outflow. We analyzed movement of three groups of millennials separately:

- "Older millennials" were 15 to 19 in 2000 and are tracked for 15 years, until they were 30 to 34 years of age in 2015.
- "Middle millennials" were 15 to 19 in 2005 and are followed for 10 years, until they were 25 to 29 in 2015.
- The youngest millennials were generally in high school in 2010. They are followed for just five years, until they were 20 to 24 in 2015.

Although 2017 population estimates are available, millennials were tracked only through 2015 so the 2000 and 2010 Census years, which have the most accurate population counts, can be included.

OLDER MILLENNIALS

In 2000, most of Wisconsin's oldest millennials were in high school. Wisconsin had 407,189 teenagers ages 15 to 19 in that year. Over the ensuing 15 years, many headed to college and most began careers and started families. Over the entire 2000 to 2015 period, as the group aged into their early 30s, Wisconsin lost, on net, more than 31,000 of these young adults to other states or countries.

Movement by County

During those 15 years, gains were seen in only six, mostly urban, counties: Dane (+23.9%), St. Croix (+22.0%), Milwaukee (+7.8%), Sauk (+4.6%), Outagamie (+4.6%), and Brown (4.5%) (see the map on page 4). While some of these gains were

individuals moving from other states, most were intrastate movements between counties.

Declines in this cohort were particularly large in rural counties. As a group, 20 rural counties in the north (using Highway 29 as the dividing line) experienced a 35% reduction in older millennials. Rural counties in the southern part of the state saw, as a group, a 24% decrease.

Movement by Age

Over those 15 years, the movement of millennials was influenced by life events. Many headed to college during 2000 to 2005. Most of those who went to college graduated during 2005 to 2010 and began careers. As they aged into their thirties during 2010 to 2015, some started families.

College Bound. By 2005, older millennials were 20 to 24 years of age and numbered 398,373, down from more than 407,000 in 2000 (see Figure 2). Of the 8,816-person decline, about 1,500 was due to deaths. The remaining loss of 7,258 young people (1.8%) was net out-migration. In other words, during 2000-05, an estimated 7,258 more young people left the state, for college or for work, than came here from elsewhere.

Figure 1: Most Counties Losing Older Millennials 2000-2015 % Change in Those Born 1981 - 1985

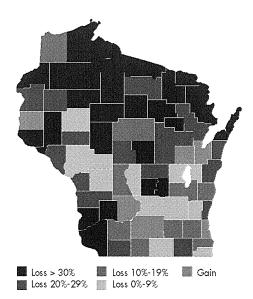
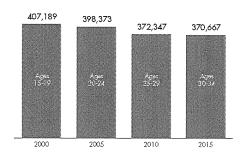


Figure 2: Older Millennials Leaving Wisconsin Population of Those Born 1981–85



With UW-Superior the only major university north of Highway 29, northern millennials heading to a four-year college typically went south or out of state. Between 2000 and 2005, northern counties lost nearly a third (32%) of this population, while this cohort grew by 20% in counties with a UW campus.

Graduation and New Career. Over the ensuing five years (2005-2010) older millennials continued to leave the state to pursue careers. In 2010, Wisconsin's population of 25 to 29 year olds was 372,347. After accounting for deaths, the state lost another 24,547 (6.2%) of this population to other states or countries.

For northern counties, the likely expectation was a return of some of those who had left for college. That is what happened during 1990-1995 (gain of 3,400) and 1995-2000 (gain of 1,600). However, during 2005-2010, these counties lost another 1,100 from this cohort, on top of the 9,900 lost in the previous five years.

Young Families. As this group aged into their 30s, the outflow seen in previous years ceased. While the total size of the group fell by 1,680, the entire decline was due to deaths.

This was a welcome reprieve from the more than 30,000 who left during 2000-2010. However, this group was different from prior generations. During 1990-1995, Wisconsin gained about 20,000 young adults of this age. During 1995-2000, it added more than 12,000. With this group, the change was essentially zero.

This hurts the state in two ways. First, the inflow in prior years helped the state immediately by adding to the workforce. That is no longer occurring.

Second, adding young families often meant more children, who are the future workforce. With no net increase in this cohort, growth in the workforce 15 or 20 years in the future will be a challenge.

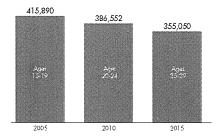
MIDDLE MILLENNIALS

The group we call "middle millennials" were born during 1986-1990 and were 15 to 19 years of age in 2005. This group totaled 415,890 in that year.

As this cohort aged from their high school years to their late 20s, almost twice as many left the state than their older counterparts. During 2005-2015, Wisconsin lost 57,840 "middle millennials" to other states or countries. That compares to a loss of fewer than 32,000 of the older millennials as they aged from 15-19 to 25-29 years of age.

Over the 10 years, only two counties added to this cohort: Milwaukee (+20.0%) and Dane (+15.7%). Like their older counterparts, middle millennials left the rural north and south in large numbers. The size of this group declined 41% over 10 years in the rural north and 31% in the rural south.

Figure 3: Middle Millennials Also Leaving Population of Those Born 1986-90



Movement by Age

The outflow of this population was similar during the two five-year periods studied. As middle millennials graduated high school and left for college or found their first full-time jobs, numbers here fell by almost 30,000 (approximately 7%). That was more than three times the drop in the number of older millennials at the same age.

During 2010-2015, the size of this cohort declined by 31,502, with 29,771 due to outmigration. In 2015, Wisconsin had just 355,050 residents ages 25 to 29, down from 415,000 ten years earlier

An important, unanswered question remains with this group: During 2015-2020, will these declines reverse as they did with the older millennials, or will the state continue to lose middle millennials?

YOUNG MILLENNIALS

The youngest group of millennials, those born during 1991-1995, can only be tracked through their early 20s. They were 15 to 19 years of age in 2010 and 20 to 24 in 2015. Their numbers are somewhat encouraging.

Young millennials totaled 399,209 in 2010 and 408,139 in 2015. After accounting for deaths, the gain of nearly 9,000 (2.2%) is a dramatic shift from the population declines in the two older millennial cohorts as they graduated high school and left for college (-7,258 among the older group and -28,069 among middle millennials).

By county, gains were almost exclusively in those with a four-year UW campus. The 10 counties that added young millennials were Brown, Dane, Dunn, Eau Claire, La Crosse, Pierce, Portage, Walworth, and Winnebago.

Like the others, young millennials left the north in large numbers. As a group, the rural north lost 6,100, or 23%.

We do not know if these statewide gains of young millennials are just temporary college movements that will reverse as this they age, or if the state's current labor shortage will help retain and even attract many in this cohort as they age into their late 20s and early 30s.

IN SUM

To grow its workforce over the next decade, Wisconsin will need to attract workers from other states. With millennials poised to become the largest labor force cohort, attracting and retaining this generation is key.

Significant losses of older- and middle-millennials indicate a lack of success so far. Particularly troubling is the state's inability to attract young families as they age from their 20s to their 30s. Wisconsin historically has been attractive to young people of this age.

On the bright side, the state has gained with the youngest millennials, primarily among those attending college. However, if earlier generations are a guide, the additions during 2010-15 may be lost as these young adults finish college, begin careers, and start families.



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