

2016

RACINE COUNTY LABOR MARKET ANALYSIS

RAMAC

 Higher
Expectations
for Racine County Youth



Executive Summary

Racine County, located between Chicago and Milwaukee, is strategically positioned to provide current employers access to the services and labor force they need to be successful and to accommodate new business opportunities in the region. Racine County, however, is faced with diametric workforce challenges: a) employers reporting difficulty recruiting and retaining a labor force with the required skill set b) a high unemployment rate in the City of Racine. Unless addressed, the County will not have the labor supply necessary to sustain and grow its industry base.

Higher Expectations for Racine County Youth and Racine Area Manufacturing and Commerce (RAMAC) engaged with the Wisconsin Department of Workforce Development (DWD) to conduct a study to assess the current labor skills gap in Racine County. Study results will be used to inform and align the efforts among community partners such as Racine Unified School District, Higher Expectations for Racine County Youth, Racine County Workforce Development and Racine Area Manufacturing Association to address the needs of the employer community and grow tomorrow's workforce.

The 2016 Racine County Workforce Skills Gap survey validated previously reported concerns regarding labor force availability in Racine County.

- Eighty-eight percent (88%) of the respondents indicated that they had difficulty filling positions particularly in the areas of healthcare and manufacturing.
- Two-thirds (2/3) of respondents said upcoming retirements were of concern. Managerial, production supervisors and education positions stood out as retirement concerns.
- Hiring agencies and internal promotion were listed as top hiring sources, followed by "word of mouth" and "employee referrals."
- Many employers do not currently offer any type of internship or workplace learning opportunity for high school students or college students.

Jamie P. Merisotis, president and chief executive officer of the Lumina Foundation, recently stated that, "Talent is not merely an innate ability; rather, it's a collection of knowledge and skills that are continually honed by education and experience to meet the needs of an ever-changing economy and society."

Significant efforts are under way in Racine County to transform the educational experience to build the human capital necessary to help the county—and its businesses—grow and prosper in an ever-changing world. Racine County has an opportunity to utilize the results to support and expand on these efforts. The Wisconsin Department of Workforce Development has recommended consideration be given to the following moving forward:

1. Work closely with local high schools to implement a curriculum to target hard and soft skills desired by employers and increase work-based learning programs opportunities
2. Build upon current engagement strategies between employers and higher education institutions in the region to better align technical and non-technical programming.
3. Increase the number of local internships opportunities available to higher education institutions
4. Partner closely with DWD's Division of Employment and Training (DET) to integrate existing state programs into the education and training plans for local workers.

1. Lumina Foundation. (2016, May). *A Stronger Nation* (7th edition, p. 1). Indianapolis, IN. https://www.luminafoundation.org/stronger_nation2016

Introduction

Racine County is faced with major workforce challenges:

- Local businesses are having difficulty finding enough qualified workers to meet their needs.
- The City of Racine's annual average unemployment rate in 2015 was 7.1%, the highest among the state's 32 largest municipalities.
- There are spatial and skills disconnects between available labor and work opportunities.

In 2008, the Racine County Workforce Development Board embraced the creation of a workforce development strategy with the vision of a workforce that will be fully employed by the year 2020. Educational, private, public, non-profit, and faith-based organizations met to address the root causes of chronic underemployment in the county, particularly for the inner city of Racine.

After spending several years creating the foundation for collaborative work, a collective impact initiative called Higher Expectations for Racine County Youth was launched in 2014. This initiative builds on the original Higher Expectations workforce development plan and is developing a powerful, multi-year career to cradle partnership in Racine County.

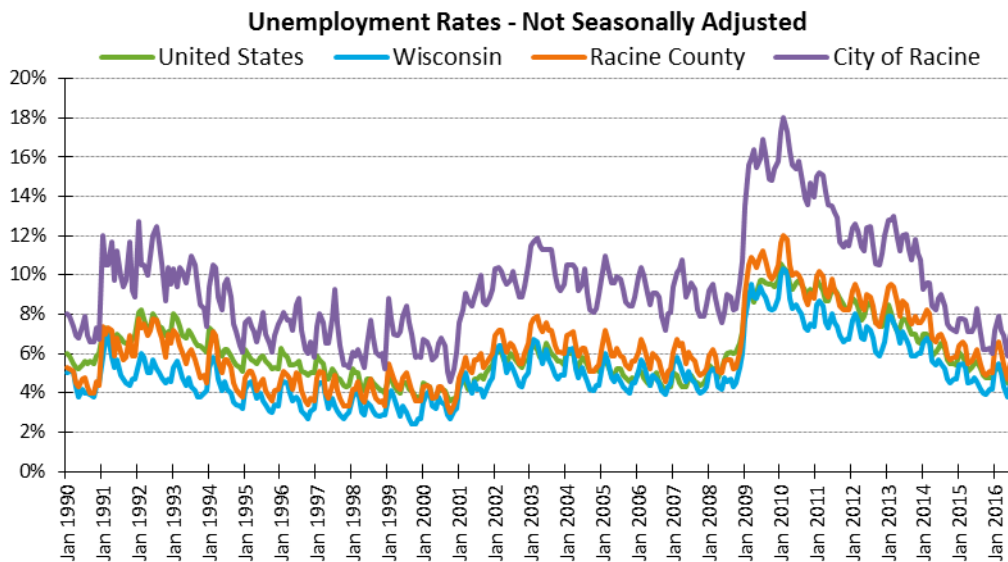
Higher Expectations and Racine Area Manufacturing and Commerce (RAMAC) partnered with the Wisconsin Department of Workforce Development Division of Employment and Training's Bureau of Workforce Information and Technical Support to research, consult, and monitor various aspects of the Higher Expectations initiative.

Understanding the labor market in a given area is vital to formulating a strategy to address local skills gaps. There is a wealth of public information at the national and even state level for this purpose, but local information is lacking. While there can be commonalities with statewide and national skills gaps, this coalition is ultimately about solutions for local businesses. Higher Expectations needed to understand the needs of local employers by focusing on the demand and retirement trends within specific occupations.

This report was commissioned to summarize the economic and demographic situation in Racine County using existing data, as well as to highlight the results of a survey of local employers conducted to gather local insight into the workforce challenges of area businesses. The survey was sent to 360 employers during the first quarter of 2016, resulting in 90 unique responses-for a response rate of 25%.

Labor Market Snap Shot

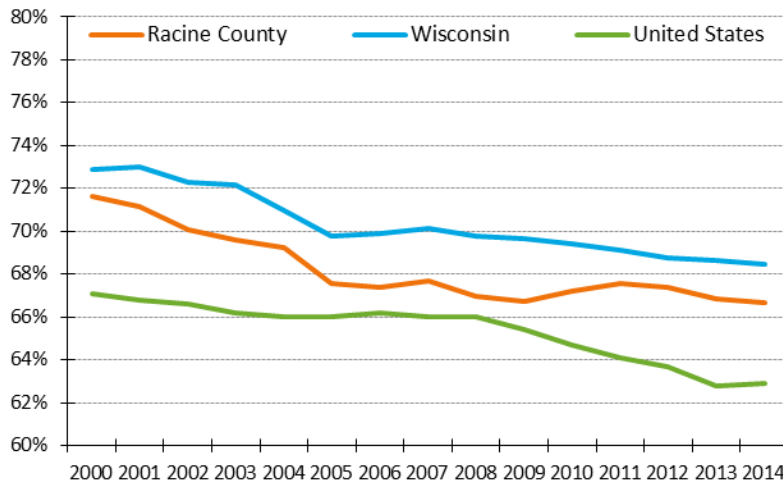
The graph below tracks the unemployment rates in the City and County of Racine since 1990 and compares them to state and national rates during the same time period. Since this unemployment data has not been seasonally adjusted, or smoothed, the graph also shows seasonal employment variations within each year. The seasonality of the county's labor market is moderate and typical, with normal peaks of unemployment early in the year and again in summer as students enter the job market in search of work, and normal troughs late in the year. The recent recession caused national, state, and county unemployment rates to rise sharply after 2008 and peak in early 2010. Since then, rates have steadily fallen as the economy slowly recovers. The City of Racine's average annual unemployment rate in 2015 was 7.1%, the highest rate among Wisconsin's 32 largest municipalities. The county rate of 5.7% was slightly higher than the national rate of 5.3% and substantially higher than the state rate of 4.6%.



Source: Wisconsin Department of Administration, Demographic Services

The unemployment rate is closely related to the labor force participation rate (LFPR), which reflects not only an area's economic conditions, but also its age demographics. It is the portion of the population aged 16 years and older who are employed or actively seeking employment. Aging of the population combined with high unemployment during and after the recent recession have caused national, state, and county LFPRs to trend downward in recent years. But recent tightening in the job market has attracted more participants, causing participation rates to level off in the United States and Wisconsin and actually rise in Racine County. The County's LFPR increased one and a half percent between 2012 and 2014 to 66.7 percent, slightly lower than Wisconsin's LFPR but much higher than the national participation rate.

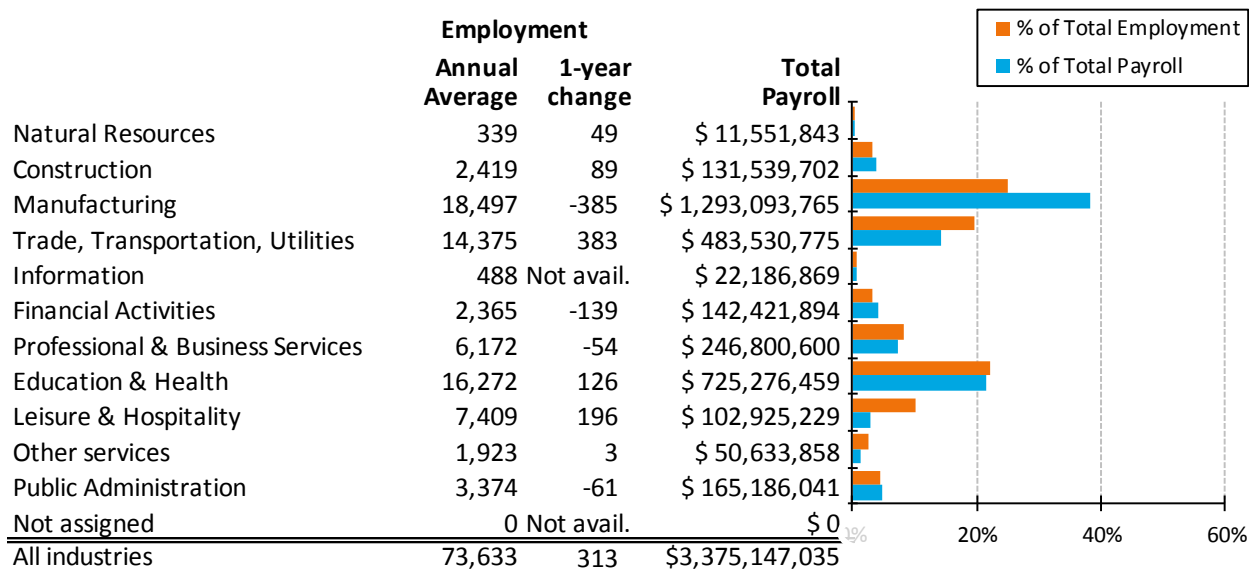
Labor Force Participation Rates



Source: Current Population Survey, US Department of Commerce, Census Bureau

The employment and wage distribution graph below displays the economic impact of the various industry sectors in Racine County from both an employment and payroll perspective. Some data has been suppressed for confidentiality. Racine County’s job base grew by 313 jobs or 0.4 percent during 2015, significantly less than average statewide job growth of 1.3 percent during the same period. Trade, transportation, and utilities, Racine’s third largest sector behind education and health services, added the most jobs while manufacturing, the county's largest sector in terms of both employment and wages, lost about the same number of jobs as gained by trade, transportation, and utilities.

2015 Employment and Wage Distribution by Industry in Racine County



Source: WI DWD, DET, BWITS, Quarterly Census Employment and Wages

The table below shows annual average wage by industry in Racine County, compares those wages to the statewide average, and displays the county's one-year change in each of the sectors. Racine's average annual wage is one percent higher than the state average and increased 1.5 percent in 2015, less than half of statewide annual wage growth of 3.5 percent. Weak wage growth is likely due to loss of high-wage manufacturing jobs combined with growth in trade, transportation, and utilities jobs paying, on average, 48 percent of those paid in manufacturing.

Average Annual Wage by Industry Division in 2015

	Wisconsin Average Annual Wage	Racine County Average Annual Wage	Percent of Wisconsin	1-year % change
All industries	\$ 45,389	\$ 45,837	101.0%	1.5%
Natural Resources	\$ 36,580	\$ 34,076	93.2%	-3.5%
Construction	\$ 57,103	\$ 54,378	95.2%	0.6%
Manufacturing	\$ 55,375	\$ 69,908	126.2%	-0.4%
Trade, Transportation & Utilities	\$ 38,662	\$ 33,637	87.0%	4.7%
Information	\$ 66,378	\$ 45,465	68.5%	Not avail.
Financial Activities	\$ 65,241	\$ 60,221	92.3%	6.5%
Professional & Business Services	\$ 55,146	\$ 39,987	72.5%	3.7%
Education & Health	\$ 46,188	\$ 44,572	96.5%	3.6%
Leisure & Hospitality	\$ 16,555	\$ 13,892	83.9%	3.9%
Other Services	\$ 27,243	\$ 26,331	96.7%	6.3%
Public Administration	\$ 45,670	\$ 48,959	107.2%	3.4%

Source: WI DWD, Labor Market Information, QCEW

Labor Market Outlook

The table below presents ten-year regional employment projections by industry sector for the Southeast Workforce Development Area, which is comprised of Racine, Kenosha, and Walworth Counties. The change in the number of jobs from 2012 to 2022 represents new jobs expected to be created during the period.

In 2015, Racine had the largest job base of the three counties, with 43 percent of the region's jobs. Kenosha and Walworth Counties had 34 and 23 percent, respectively. Ten-year regional employment growth is projected to exceed statewide projected job growth of 7.1 percent. Jobs in the three-county area are expected to increase 11 percent between 2012 and 2022, with average annual growth of 1.1 percent or 1,962 jobs per year.

The education and health services sector is projected to add the most jobs between 2012 and 2022, with health services employment expected to grow much faster than educational services. The professional and business services sector, which provides professional, technical, and administrative services to businesses, is also expected to add significant numbers of jobs. A large portion of recent and projected growth in this sector are in the employment services

subsector, which often provide business with temporary workers. These workers may work in a variety of industries such as health care or manufacturing, but as long as they are employed by an employment services establishment, their jobs are counted in the professional and business services sector, even if they are a nurse working in a hospital or a welder working in a manufacturing plant.

Southeast Workforce Development Area Industry Projections, 2012-2022
Kenosha, Racine and Walworth Counties

Industry	2012	Projected	Change (2012-2022)	
	Employment	2022 Employment	Employment	Percent
All Industries	185,706	205,324	19,618	11%
Natural Resources	6,420	6,013	-407	-6%
Construction	4,348	5,287	939	22%
Manufacturing	33,613	36,719	3,106	9%
Trade, Transportation, and Utilities	32,095	34,863	2,768	9%
Information	945	864	-81	-9%
Financial Activities	5,198	5,664	466	9%
Professional and Business Services	15,223	18,484	3,261	21%
Education and Health Services	42,491	48,144	5,653	13%
Leisure and Hospitality	19,860	22,369	2,509	13%
Other Services	5,443	5,989	546	10%
Public Administration	9,797	10,178	381	4%
Self-Employed and Unpaid Family Workers	10,273	10,750	477	5%

Source: Office of Economic Advisors, Wisconsin Department of Workforce Development, September 2015.

To get more detailed information about the types of jobs included in employment projections, we can also look at expected job growth by occupation. The table below displays projected total job openings through 2022 and includes not only openings resulting from the creation of new jobs (Change column) but also replacement openings in previously created jobs that are anticipated to occur as incumbent workers leave those positions, necessitating the hiring of new workers to replace them (Replacement Openings column). Large numbers of Baby Boomers are expected to retire within the next few years, which is why projected replacement openings far exceed the number of openings expected to occur as a result of job growth. This phenomenon is occurring not only in the Southeast region, but throughout the wider economy as well. The largest number of job openings is projected in office and administrative support, food preparation and serving, production, and sales and related. Large numbers of replacement openings are projected even in those occupations which are not expected to grow significantly, such as office and administrative support and sales and related. This is especially common in occupations with older workforces and large numbers of anticipated retirements during the projection period as well as low-wage occupations which tend to have younger workforces but higher rates of employee turnover.

South east Workforce Development Area Occupation Projections, 2012-2022

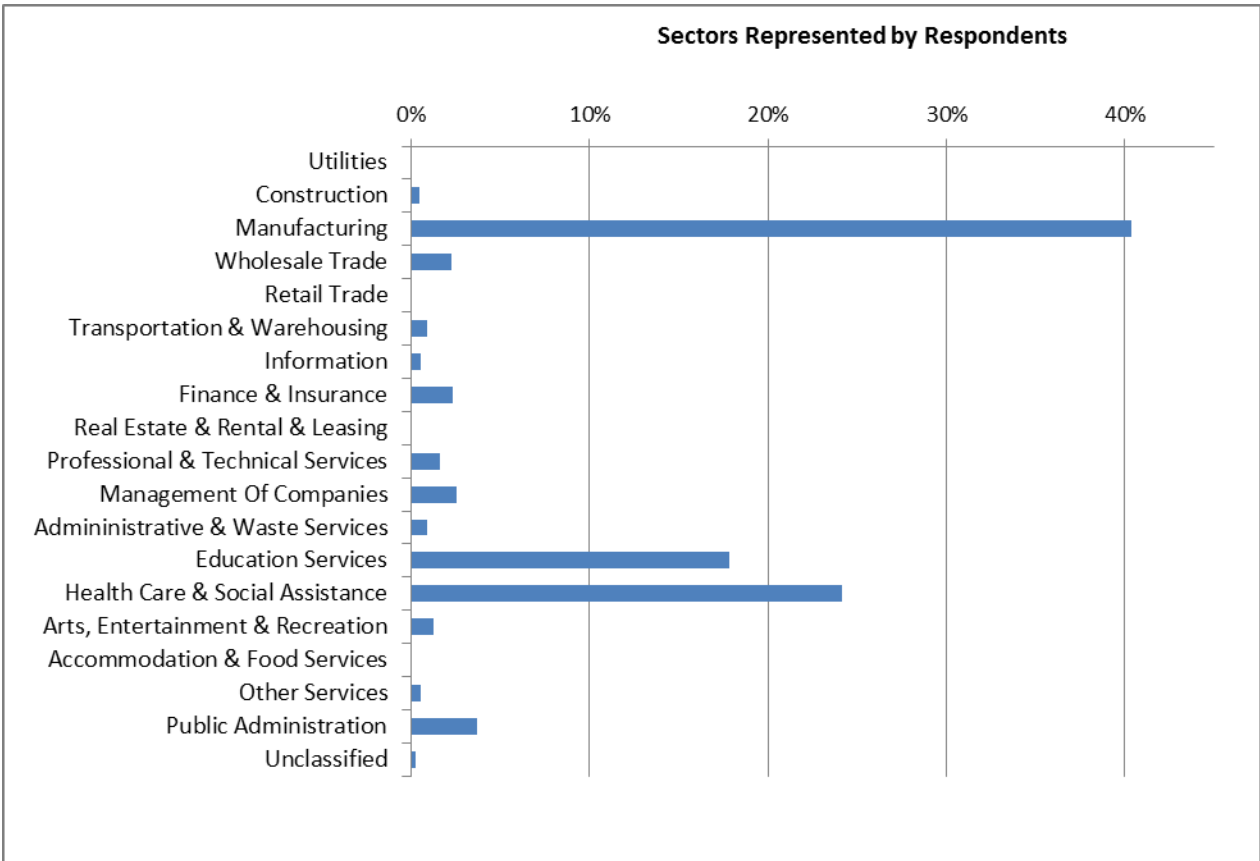
Kenosha, Racine and Walworth Counties

Occupation Group	Employment				Average Annual Openings			Median Annual Wage
	2012	2022	Change (2012-2022)		Due to Growth	Due to Replacement	Total Openings	
			Number	Percent				
All Occupations	185,706	205,324	19,618	11%	2,047	4,462	6,509	\$ 31,892
Management	8,492	9,354	862	10%	94	174	268	\$ 87,429
Business and Financial	5,748	6,500	752	13%	76	120	196	\$ 55,529
Computer and Mathematical	1,457	1,700	243	17%	25	24	49	\$ 62,575
Architecture and Engineering	2,677	2,957	280	10%	29	69	98	\$ 67,167
Life, Physical, and Social Science	821	910	89	11%	9	24	33	\$ 55,847
Community and Social Service	2,368	2,588	220	9%	22	55	77	\$ 41,122
Legal	643	752	109	17%	11	10	21	\$ 54,657
Education, Training, and Library	13,406	14,532	1,126	8%	113	293	406	\$ 47,831
Arts, Entertainment and Media	2,540	2,892	352	14%	40	63	103	\$ 38,745
Healthcare Practitioners	9,160	11,029	1,869	20%	187	182	369	\$ 60,470
Healthcare Support	4,446	5,164	718	16%	72	84	156	\$ 28,118
Protective Service	4,013	4,301	288	7%	30	127	157	\$ 41,078
Food Preparation and Serving	16,333	18,043	1,710	10%	172	613	785	\$ 18,440
Building & Grounds Maintenance	7,224	8,315	1,091	15%	109	148	257	\$ 23,263
Personal Care and Service	9,825	11,282	1,457	15%	146	209	355	\$ 21,334
Sales and Related	17,920	19,005	1,085	6%	111	558	669	\$ 22,821
Office and Administrative Support	27,100	28,856	1,756	6%	200	601	801	\$ 30,593
Farming, Fishing, and Forestry	2,983	2,744	-239	-8%	3	82	85	\$ 27,528
Construction and Extraction	4,855	5,812	957	20%	96	80	176	\$ 50,932
Installation, Maintenance, Repair	6,787	7,644	857	13%	87	154	241	\$ 42,190
Production	22,994	25,209	2,215	10%	233	467	700	\$ 31,378
Transportation & Material Moving	13,914	15,735	1,821	13%	184	324	508	\$ 28,273

Source: Office of Economic Advisors, Wisconsin Department of Workforce Development, September 2015

About the Participants

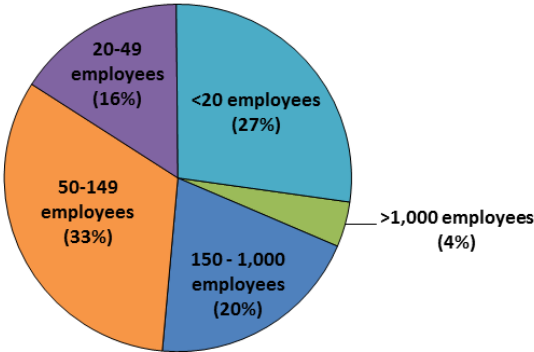
While the main focus of the survey was occupational data, we also collected data about the employers themselves. The industry mix compared satisfactorily to the Bureau of Labor Statistics Quarterly Census of Employment and Wages second quarter establishments and employment levels. As one might expect, industry sectors known to have difficulty recruiting certain skilled positions were overrepresented, while industry sectors with mainly low skill positions were underrepresented. This likely reflects self-interest of businesses very concerned with their recruiting difficulties as a motivating factor for completing the survey.



Manufacturing, Education, and Healthcare were overrepresented, though within acceptable levels. The Arts, Entertainment, and Recreation sector and Finance sector were represented at close to their share of the county's total employment. The Management of Companies and Enterprises sector and Public Administration sector were also represented at average levels, which is interesting-given that workers in both of these industries are comparatively older than workers of other industries, with the likely result of many skilled position vacancies in the coming years. Both Retail Trade and Accommodation and Food Services sectors were especially underrepresented, which is not surprising given that many of the positions in those industries have low skill requirements and correspondingly less difficulty in recruitment.

The survey responses represented employment of 19,105 in the survey area, or about 26% of total county employment, which is excellent coverage for a survey of this type. The median employment size of respondent businesses was 57 employees, though the actual distribution covered employers of all sizes. Racine's close proximity to the Illinois border as reflected in a large portion (39 percent) of respondent businesses employing workers who resided outside of Wisconsin.

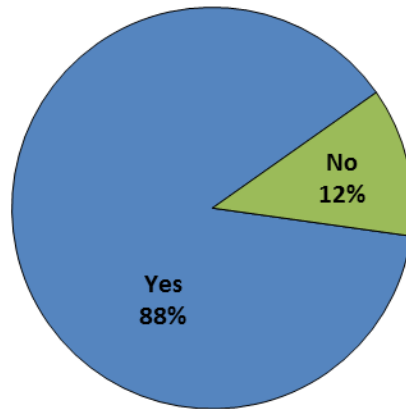
Employment Size of Respondents



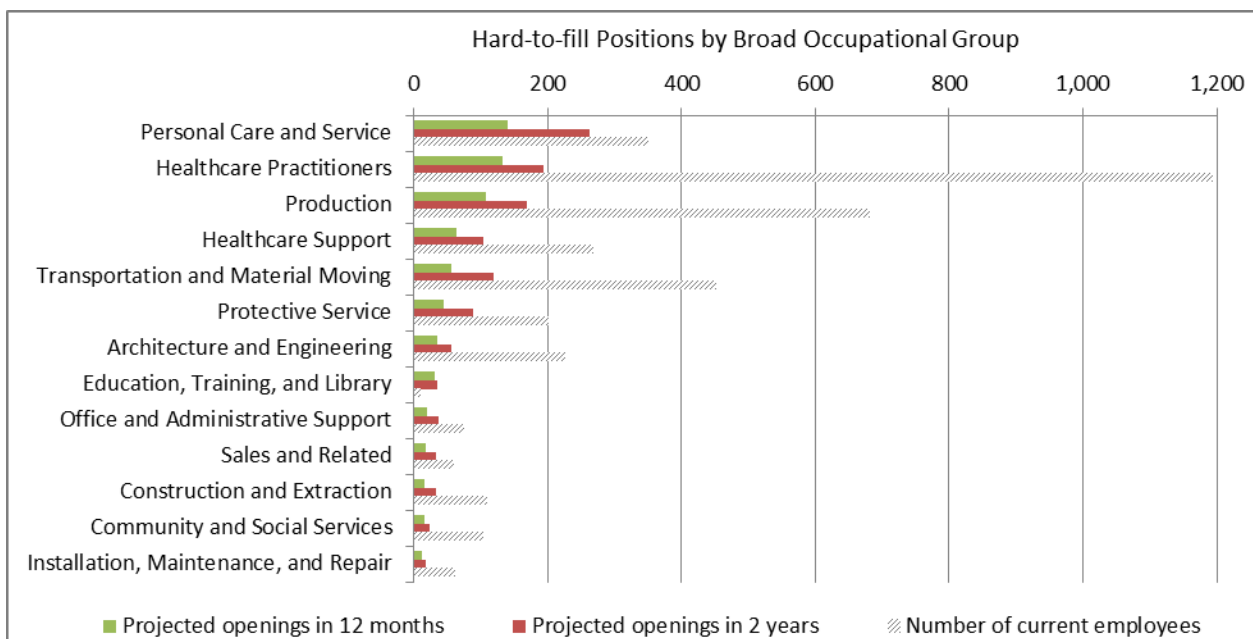
Difficulty Filling Certain Positions

Eighty-eight percent of respondent businesses indicated that they have difficulty hiring certain positions in Racine County.

Does your business/organization have difficulty filling certain positions in the Racine area?

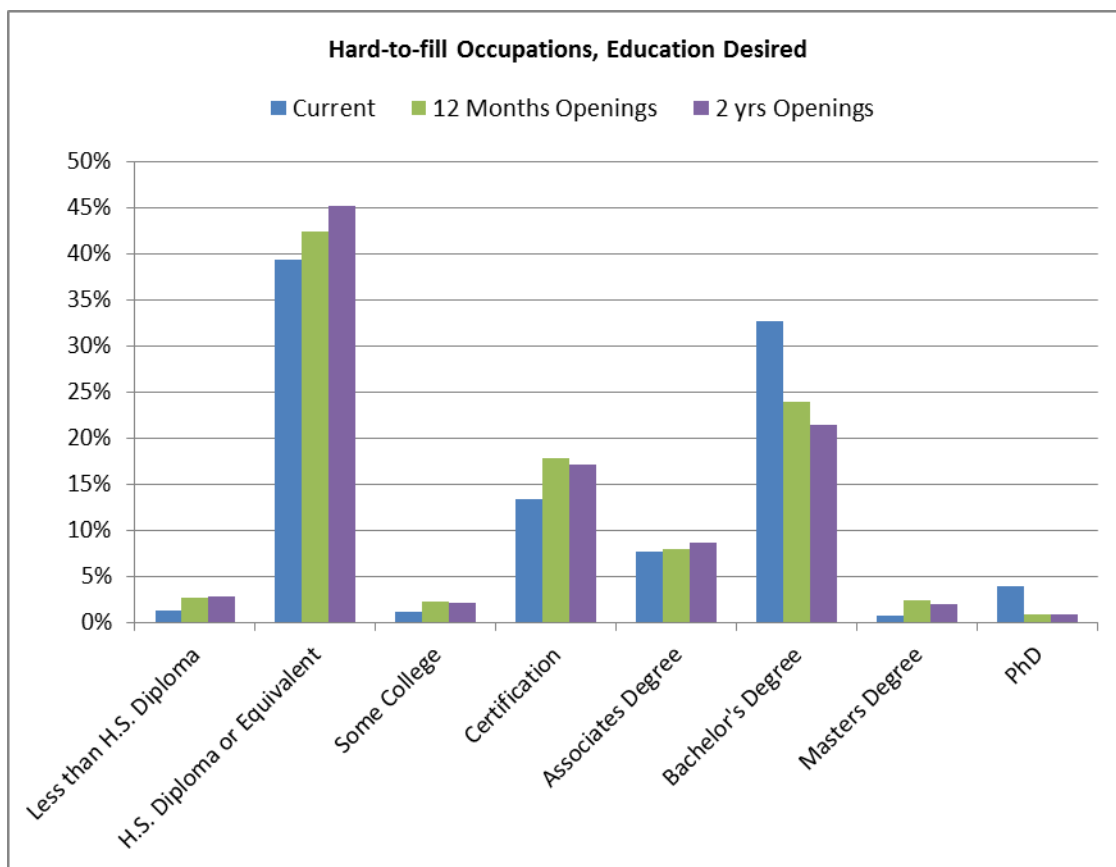


Businesses were given the ability to designate up to five hard-to-fill occupations, as well as experience and education desired in each. About one-third of the businesses listed three or more occupational titles and over two-thirds designated at least two. Current regional employment in the occupations identified by respondents represented 3,905 current jobs in the region. Businesses projected 727 openings in the next 12 months in these hard-to-fill positions and 1,227 openings during the next two years.

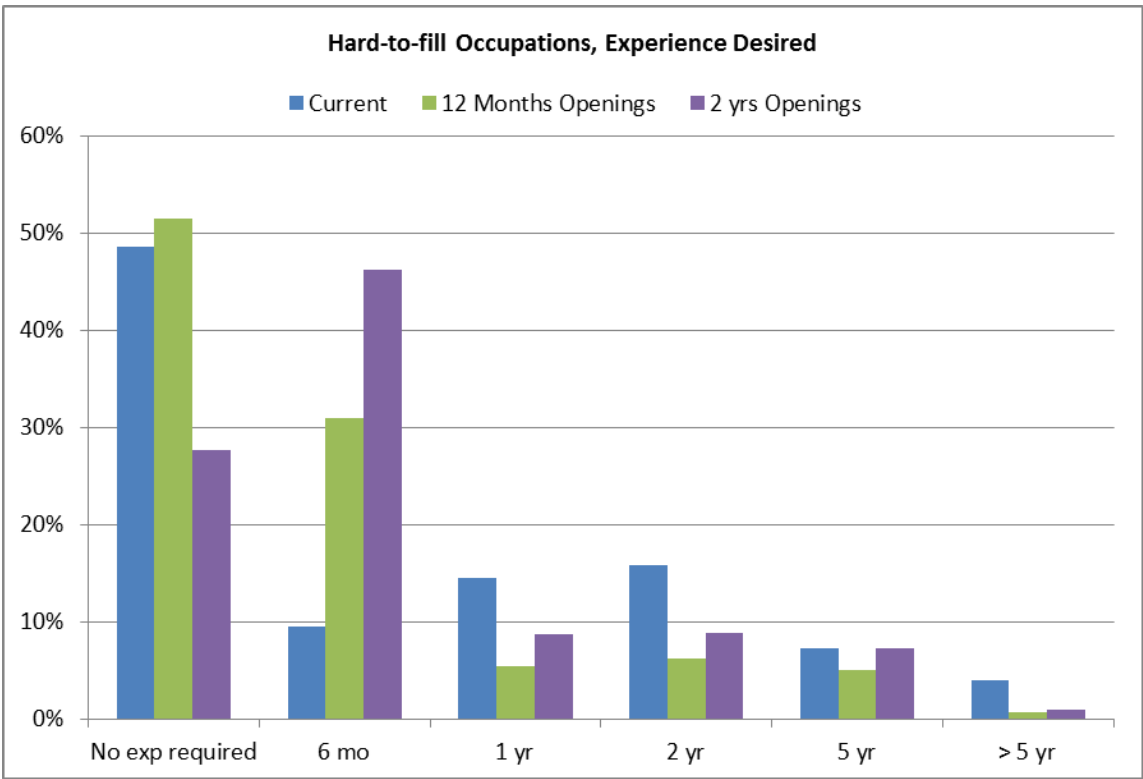


The table above summarizes some of the hard-to-fill occupations listed by broad occupational group. A full listing of specific occupations can be found in Appendix A. Some occupation groups of particular interest serve the needs of an aging population in Racine and in many other communities as well. Personal care and service and healthcare support highlight the difficulty businesses have in hiring occupations involved in direct care of the elderly such as home health care aides, and certified nursing assistants. Registered nurses, found in the healthcare practitioners group, reflect the increased healthcare needs of aging baby boomers. Other occupations of particular interest in Racine County highlight the importance of manufacturing to the area. The production occupation group includes occupations like operators, setters, and programmers of CNC machines in a variety of manufacturing settings and other skilled positions such as machinists and welders. Architecture and occupations are also related to the manufacturing cluster and include occupations like mechanical engineers and manufacturing engineers. The median wage for hard-to-fill occupations in Racine County was \$37,491, about five percent higher than the \$35,554 median wage for all occupations in the county.

The two charts below display the educational and experience levels desired by employers in hard-to-fill occupations. While many positions required a high school diploma, education desired tended to mirror education breakout of current occupational employment in the area.



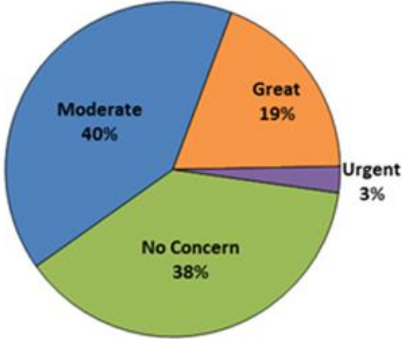
The majority of businesses had minimal experience requirements for hard-to-fill occupations ranging from none to six months of experience. Low requirements may reflect the need to moderate expectations in a tight labor market.



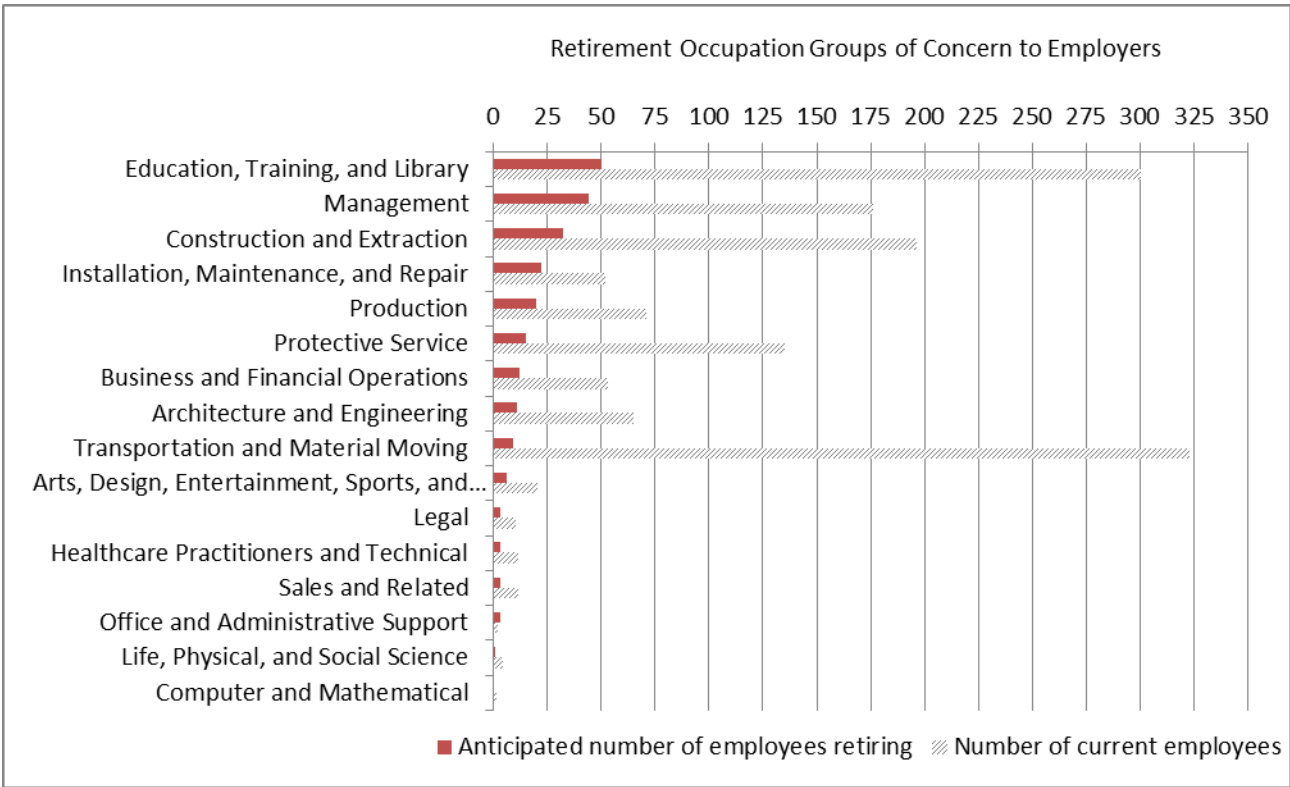
Retirement Concerns

Demographic trends suggest that upcoming baby boomer retirements will exacerbate recruitment difficulties currently experienced by employers in an already tight labor market. Certain positions will be even harder to fill and new positions of concern will be added to the mix. Survey respondents were given the ability to designate up to five occupations that were of concern given upcoming retirements in Racine County as well as experience and education desired in each.

Are the retirement plans of current employees a concern for you business/organization?



Almost two-thirds of respondents indicated that retirements were a concern for their organization. Occupations that were identified as "of concern" by respondent businesses represented 1,492 current jobs in the region with 238 of these positions projected to turn over due to retirement in the near-term. The median wage for hard-to-fill occupations in Racine County was \$37,491, about five percent higher than the county median for all occupations of \$35,554.

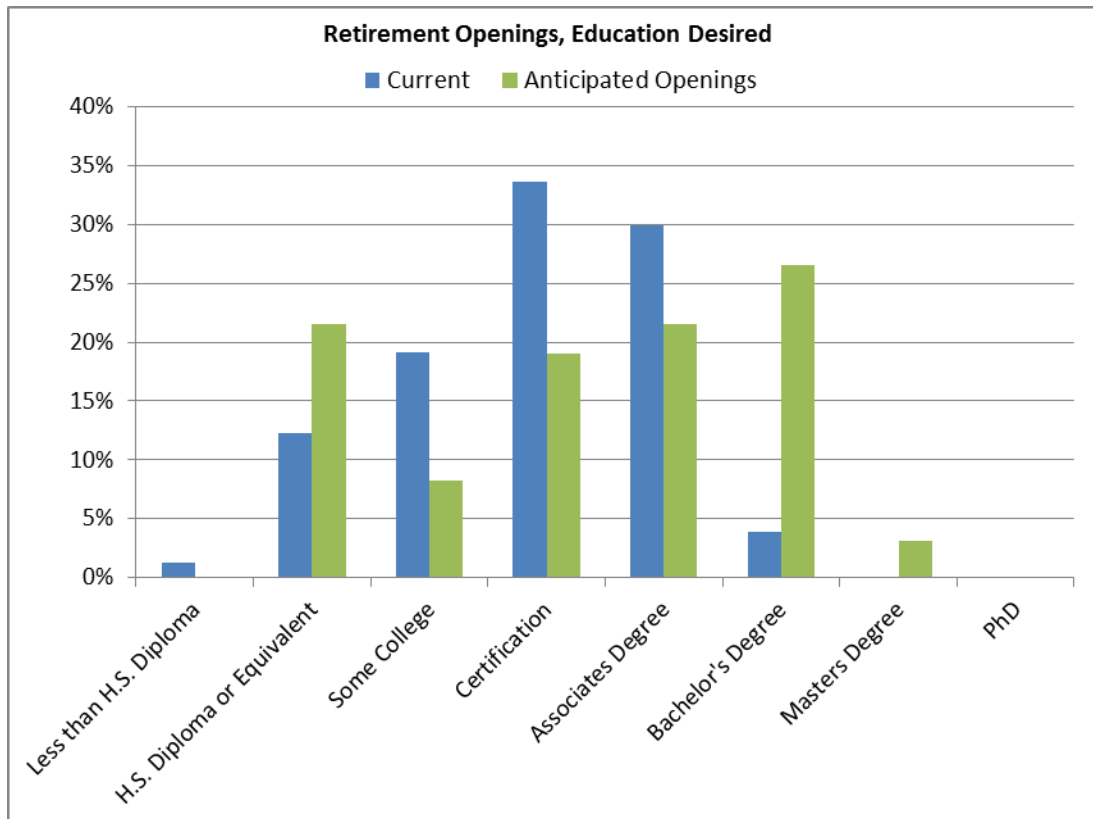


The table above summarizes the occupations listed by businesses as being of particular concern due to retirements (see Appendix B for full listing). Similar to current hard-to-fill occupations, the production and architecture and engineering occupation groups highlight the importance of manufacturing in the area. However, specific occupations identified as of concern due to retirements vary from those on the current hard-to-fill list. Production supervisors stood out as an occupation of retirement concern in the production occupation group. Another manufacturing related occupational group, installation, maintenance, and repair ranked high on the retirement concerns list but much lower on the current hard-to-fill list. This occupational group is vital in today's manufacturing environment. Ever-more complex and expensive machines have increased productivity, so maintaining and repairing them has become essential to keeping factories working.

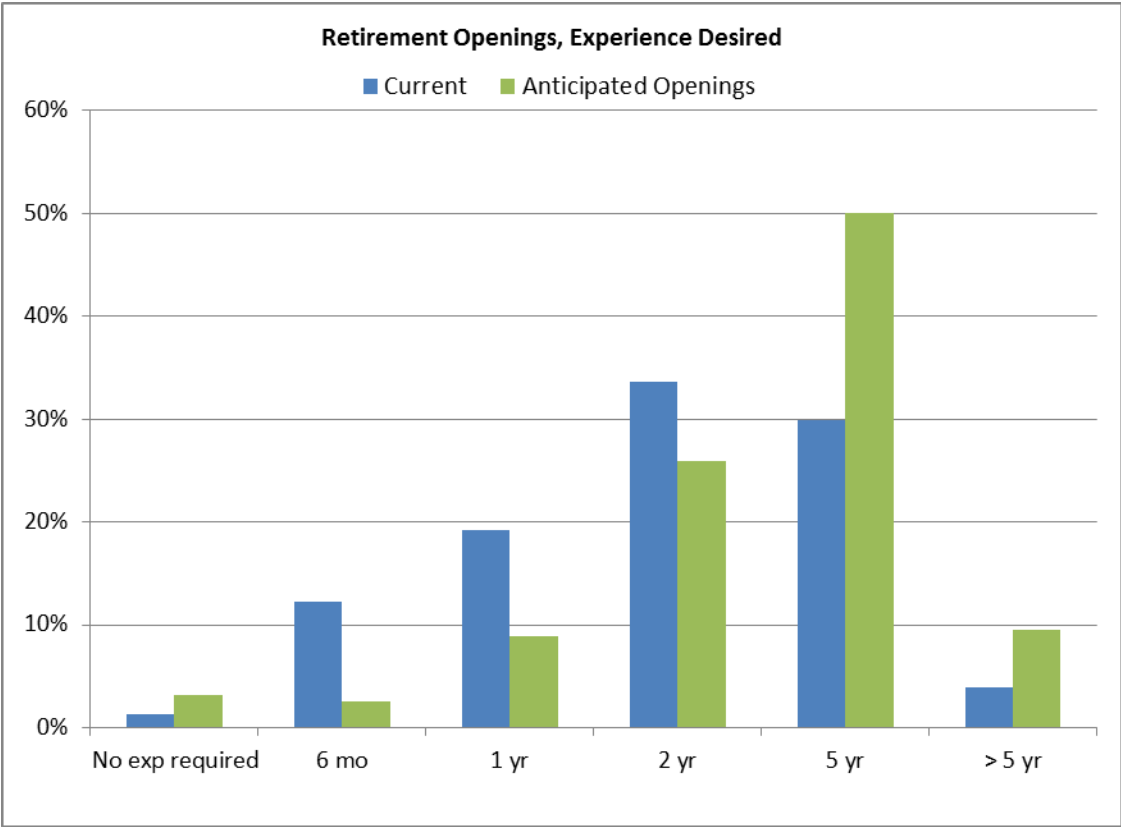
Managerial occupations found within the broad management occupation group as well as supervisory occupations in other occupational groups were a significant concern for many businesses. Workers occupying these occupations are generally older than their nonsupervisory counterparts and businesses are concerned about losing their accumulated experience found in their positions.

Education, training and library occupations were at the top of the list in terms of retirement openings. Aside from filling these openings, pending teacher retirements may significantly impact local skill pipelines.

Businesses clearly preferred higher levels of education for applicants hired to replace retiring workers, supporting the inference that the positions vacated by retiring employees are higher-skilled than many other positions throughout the region. In fact, the preferred education distribution for applicants replacing retiring workers skewed higher than current hard-to-fill positions discussed earlier. The chart below displays the educational levels desired by employers in occupations vacated by retirements.



The chart below displays the experience levels desired by employers in occupations vacated by retirements. While some businesses specified no experience necessary for the listed positions, the majority were looking for significant experience, highlighting the accumulated experience and expertise about to be lost in these positions. Similar to preferred education, experience desired trends much higher on the distribution than current hard-to-fill positions discussed earlier with a significant number of employers wanting five years or more.



Degrees Hired

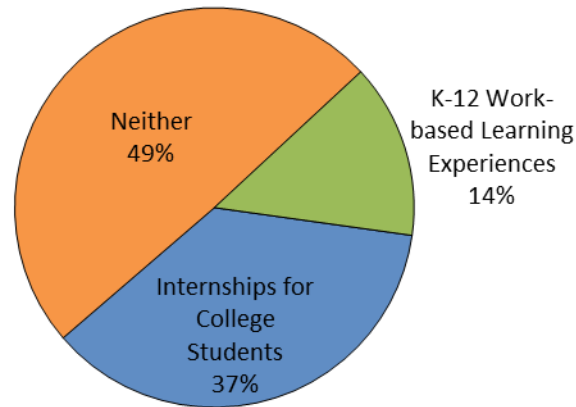
The table below displays which degrees or certifications each employer hired by career cluster. While we cannot determine *how many of these degree holders* they hire, we do know *how many businesses* in the survey hire each particular degree/certification. Many of the top 20 were business related degrees-and certifications, and included occupations which transcend industry sectors such as administrative professionals, accountants, human resources specialists, etc. Most businesses hire at least a few of these "business" occupations, by necessity. This is also the case with information technology. There were interesting standouts in programs focused on skilled manufacturing such as industrial mechanics, supply chain management, and mechanical and manufacturing engineering. The full listing can be found in Appendix C. Items in red, italicized print were write-ins.

Career Clusters Hired	Number of Respondents	Percent of Respondents
Business Management & Administration	40	51%
Manufacturing	30	38%
Finance	29	37%
Science, Technology, Engineering & Math	25	32%
Information Technology	23	29%
Marketing	21	27%
Human Services	17	22%
Transportation, Distribution & Logistics	16	21%
Education & Training	13	17%
Health Science	9	12%

Internships

Data were also collected on whether internships or K-12 work based learning experiences were offered at Racine County employers. Given a tightening labor market, and increasing difficulty in hiring locally, these kinds of experiences are vital to maintaining a local skill pipeline. Businesses were also asked if they were willing to be contacted about these opportunities. Forty-nine business respondents said yes, and more importantly, twenty-one of those did not currently offer either opportunity.

Does your organization offer either of the following?



Soft Skills

Businesses were asked for the top three attributes they looked for in a potential employee. The top five stood out clearly, as seen below:

Problem solving skills	38	47%
Reliability/Punctuality	37	46%
Interpersonal skills	36	44%
Communication skills	34	42%
Adaptability	30	37%
Leadership skills	13	16%
Growth mindset	9	11%
Organization skills	9	11%
Math competence	8	10%
Persistence and Perseverance	8	10%

Employee Sourcing

The table below shows recruitment sources commonly used by Racine area employers. Hiring agencies and internal promotion were the top choices, highlighting a desire to minimize risk. The third most popular category, "other," reveals a wide variety of hiring practices. A list of write-in responses to the "other" category can be found in Appendix D. The most common, "word of mouth" and "employee referrals" were also low risk recruitment sources. The frequency of these "other" responses suggests their inclusion if a future survey is done.

Answer	Number of Responses	Percent of Responses
Hiring agencies	40	49%
Promotion from within our company	37	46%
Other*	26	32%
Other four-year universities	25	31%
Gateway Technical College	22	27%
UW-Parkside	20	25%
Direct from high school	18	22%
Company internship programs	13	16%
Other area technical or community colleges	11	14%
Industry-sponsored training programs (e.g. apprenticeships)	6	7%

Conclusion

Racine County is facing diametric workforce challenges: a) employers are finding it difficult to find workers with the skill sets required to maximize capacity and efficiency, b) the City of Racine had the highest annual average unemployment rate in the state in 2015. This is mostly due to differences between the skill sets businesses require and the skill sets of many local residents.

Local businesses illustrated concern about where they will find qualified workers in the future. Pending retirements and the need for higher skills in the workplace were identified.

Possible solutions to ameliorate the challenges were sifted out of the information gathered. For example, many businesses were willing to use internship programs to attract and retain talent, but not all those interested have used interns.

Higher Expectations' undertaking to address this "skills gap" is both necessary and creative. Higher Expectations is reversing the "cradle-to-career" model to focus on immediately preparing local workers for in-demand jobs by identifying "prerequisite" skills needed to obtain next level skills that will satisfy employers' needs.

Recommendations

1. Increase the number of internships used by employers – the primary opportunity for local employers is to increase use of internships. Forty-nine survey respondents were willing to be contacted about internship programs. Even more promising is that 29 of the willing did not currently offer internships.
2. Local businesses should work more closely with local high schools to develop more work-based learning programs – local businesses and support organizations should partner up with each other and the local school system to design and implement a curriculum to target hard- and soft-skills desired by employers.
3. Local businesses and higher education institutions in the region should build upon current engagement strategies to better align technical and non-technical programming.
4. Higher Expectations or its designee should partner with DWD's Division of Employment and Training (DET) to integrate existing state programs into the education and training plans for local workers – DET is the primary state government entity that oversees and awards workforce training funding. DET also houses money earmarked for designing and activating business developed training programs.

This report was produced by the Office of Economic Advisors, Wisconsin Department of Workforce Development.

The Office of Economic Advisors (OEA) is more than just data. OEA is a group of economists and analysts charged with identifying, analyzing, interpreting, and projecting workforce trends. As a part of the Department of Workforce Development, OEA assists public and private sector partners to better understand the effects of trends on the state's employment and economic growth.

Contributing authors:

Scott Hodek, Wandy Miezio, Jeffrey Sachse, Dennis Winters

Please visit <http://worknet.wisconsin.gov/worknet/> for more data, analysis, and contact info.

Appendix A: Hard-to-fill Occupations

Occupation Code	Title	Number of Current Employees	Projected Openings in 12 Months	Projected Openings in 2 Years	Median Wage Estimate, 2015
39-9021	Personal Care Aides	310	122	232	\$20,331
29-1141	Registered Nurses	960	103	156	\$65,959
51-4011	Computer-Controlled Machine Tool Operators	181	39	44	\$30,572
31-1014	Nursing Assistants	172	35	60	\$26,206
33-9092	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	65	30	63	\$19,052
53-7062	Laborers and Freight, Stock, & Material Movers, Hand	242	22	42	\$29,350
51-2092	Team Assemblers	72	20	46	\$31,017
39-9011	Childcare Workers	26	15	25	\$18,651
31-1011	Home Health Aides	80	15	30	\$22,497
33-2011	Municipal Firefighters	135	15	25	\$59,355
53-7064	Packers and Packagers, Hand	18	12	29	\$22,320
25-2022	Middle School Teachers, Except Special & Career/Technical Education		12	12	\$59,256
29-2012	Medical and Clinical Laboratory Technicians	50	10	10	\$43,267
47-2031	Carpenters	75	10	20	\$47,595
25-9041	Teacher Assistants		10	10	\$33,088
43-4051	Customer Service Representatives	16	10	22	\$34,571
31-9091	Dental Assistants	15	10	10	\$31,484
53-3032	Heavy and Tractor-Trailer Truck Drivers	175	10	25	\$45,882
17-2199	Manufacturing Engineers	60	9	18	\$85,245
51-1011	First-Line Supervisors of Production and Operating Workers	44	9	17	\$60,828
49-9041	Industrial Machinery Mechanics	47	8	9	\$53,300
17-2141	Mechanical Engineers	63	7	8	\$70,214
19-3031	School Psychologists		6	6	\$86,907
51-4081	Multiple Machine Tool Setters, Operators, & Tenders, Metal & Plastic	227	6	9	\$37,769
53-6031	Automotive and Watercraft Service Attendants	9	6	12	\$18,026
47-2111	Electricians	35	6	12	\$69,380
53-7051	Industrial Truck and Tractor Operators	8	6	11	\$35,281
29-1127	Speech-Language Pathologists		6	6	\$57,814
41-4011	Sales Reps, Wholesale and Manufacturing, Technical and Scientific	22	6	10	\$68,371
29-1062	Family and General Practitioners	150	6	10	\$194,557
27-1021	Commercial and Industrial Designers	30	5	10	\$50,712
	(blank)	11	5	9	
51-4111	Tool and Die Makers	9	5	8	\$54,864
17-3029	Electromechanical Engineering Technologists	4	5	8	\$52,220
51-4012	Computer Numerically Controlled Machine Tool Programmers	5	5	3	\$37,415
17-3024	Electro-Mechanical Technicians	35	5	10	\$58,287
25-2023	Career/Technical Education Teachers, Middle School		4	6	\$60,939
21-1092	Probation Officers and Correctional Treatment Specialists	22	4	8	\$50,988
51-9111	Packaging and Filling Machine Operators and Tenders	22	4	8	\$27,943
41-4012	Sales Reps, Wholesale & Manufacturing, Except Technical & Scientific	12	4	6	\$51,858
43-5071	Shipping, Receiving, and Traffic Clerks	15	4	8	\$34,067
51-4121	Welders, Cutters, and Welder Fitters	24	4	10	\$36,767
15-1142	Network and Computer Systems Administrators	8	4	8	\$67,152
17-2199	Mechatronics Engineers	47	4	8	\$85,245
51-2041	Structural Metal Fabricators and Fitters	34	4	7	\$33,059
31-9011	Massage Therapists	1	3	3	\$34,271
21-1023	Mental Health and Substance Abuse Social Workers	15	3	6	\$34,879
29-2061	Licensed Practical and Licensed Vocational Nurses	12	3	6	\$43,924

Appendix A: Hard-to-fill Occupations

Occupation Code	Title	Number of Current Employees	Projected Openings in 12 Months	Projected Openings in 2 Years	Median Wage Estimate, 2015
39-9031	Fitness Trainers and Aerobics Instructors	15	3	6	\$43,809
21-1093	Social and Human Service Assistants	35	3	6	\$34,879
51-4034	Lathe and Turning Machine Tool Setters, Operators, & Tenders	6	3	1	\$36,374
41-3021	Insurance Sales Agents	10	3	7	\$51,939
21-1015	Rehabilitation Counselors	20	3		\$38,535
43-3071	Tellers	40	3	3	\$23,805
17-2131	Materials Engineers	6	2	2	\$76,448
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	11	2	1	\$40,028
13-2041	Credit Analysts	3	2	2	\$52,351
29-2081	Opticians, Dispensing	3	2	2	\$30,106
25-2052	Special Education Teachers, Kindergarten and Elementary School	2	2	2	\$45,570
19-1012	Food Scientists and Technologists	4	2	4	\$50,775
41-3011	Advertising Sales Agents	12	2	4	\$39,827
17-2112	Industrial Engineers	10	2	2	\$75,596
49-9071	Maintenance and Repair Workers, General	2	2	5	\$38,568
25-1194	Vocational Education Teachers, Postsecondary	8	2	4	\$80,446
51-4072	Molding, Coremaking, & Casting Machine Operators	4	2	4	\$34,469
41-9022	Real Estate Sales Agents	3	2	4	\$80,038
51-3011	Bakers	12	2	4	\$19,737
15-1151	Computer User Support Specialists	9	2	2	\$39,442
29-2057	Ophthalmic Medical Technicians	8	2	2	\$42,150
51-2099	Assemblers and Fabricators, All Other	3	2		\$23,604
21-1021	Child, Family, and School Social Workers	11	2	4	\$45,255
51-4071	Foundry Mold and Coremakers	14	1	3	\$33,423
11-2022	Sales Managers	5	1	2	\$113,015
11-9151	Social and Community Service Managers	0	1	0	\$56,921
35-1011	Chefs and Head Cooks	2	1	1	\$32,372
15-1143	Computer Network Architects	0	1	1	\$86,421
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	3	1	1	\$34,913
27-1024	Graphic Designers	3	1		\$41,403
49-9043	Maintenance Workers, Machinery	10	1	2	\$51,626
41-9031	Sales Engineers	0	1	1	\$67,694
43-6014	Secretaries & Administrative Assistants, Except Legal, Medical, & Exec	1	1	1	\$34,090
19-4099	Quality Control Analysts	2	1	1	\$40,028
11-2021	General and Operations Managers	0	1	1	\$77,794
23-2093	Title Examiners, Abstractors, and Searchers	8	1	3	\$41,365
13-2072	Loan Officers	19	1	2	\$59,824
29-2056	Veterinary Technologists and Technicians	5	1		\$28,412
23-2011	Paralegals and Legal Assistants	0	1	3	\$42,788
19-4011	Food Science Technicians	2	1	2	\$36,381
11-2031	Public Relations and Fundraising Managers	0	1	0	\$82,627
43-3031	Bookkeeping, Accounting, and Auditing Clerks	0	1	1	\$35,225
43-6012	Legal Secretaries	3	0	1	\$37,395
23-1011	Lawyers	4	0	1	\$73,180
51-4031	Cutting, Punching, and Press Machine Operators	13	0	4	\$37,036
29-1131	Veterinarians	6		1	\$58,446
13-2011	Auditors	5	0	3	\$60,172
13-1081	Logistics Engineers				\$50,721
51-4041	Machinists				\$35,202
Grand Total		3,905	727	1,227	

Appendix B: Retirements

Occupation Code	Title	Number of Current Employees	Projected	Median Wage Estimate, 2015
			Openings in 12 Months	
25-1199	Postsecondary Teachers, All Other	300	50	\$71,544
11-1011	Education Administrators, Postsecondary	100	25	\$96,107
49-9041	Industrial Machinery Mechanics	45	18	\$53,300
33-2011	Municipal Firefighters	135	15	\$59,355
11-3031	Financial Managers	55	12	\$89,878
47-2031	Carpenters	75	10	\$47,595
47-2111	Electricians	35	10	\$69,380
13-2072	Loan Officers	51	10	\$59,824
51-1011	First-Line Supervisors of Production Workers	25	7	\$60,828
27-1021	Commercial and Industrial Designers	20	6	\$50,712
17-2199	Manufacturing Engineers	28	6	\$85,245
47-2211	Sheet Metal Workers	24	6	\$66,463
47-2061	Construction Laborers	50	5	\$41,305
53-3032	Heavy and Tractor-Trailer Truck Drivers	175	5	\$45,882
53-7062	Laborers and Freight, Stock, & Material Movers, Hand	148	4	\$29,350
51-2041	Structural Metal Fabricators and Fitters	17	4	\$33,059
51-4111	Tool and Die Makers	8	4	\$54,864
	(blank)	62	4	
17-2199	Mechatronics Engineers	30	3	\$85,245
11-2021	General and Operations Managers	5	2	\$77,794
23-1011	Lawyers	6	2	\$73,180
49-9043	Maintenance Workers, Machinery	4	2	\$51,626
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	3	2	\$34,913
29-1141	Registered Nurses	8	2	\$65,959
41-9022	Real Estate Sales Agents	3	2	\$80,038
13-2011	Accountants and Auditors	1	1	\$60,172
11-3011	Administrative Services Managers	2	1	\$86,274
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1	1	\$35,225
13-1199	Business Operations Specialists, All Other	1	1	\$55,563
17-2041	Chemical Engineers	1	1	\$90,790
11-1011	Chief Executives	1	1	\$121,602
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Te	6	1	\$37,036
19-1012	Food Scientists and Technologists	1	1	\$50,775
11-3121	Human Resources Managers	1	1	\$91,906
17-2112	Industrial Engineers	6	1	\$75,596
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1	1	\$40,028
41-3021	Insurance Sales Agents	8	1	\$51,939
43-6012	Legal Secretaries		1	\$37,395
51-9083	Ophthalmic Laboratory Technicians	8	1	\$30,760
29-2081	Opticians, Dispensing	3	1	\$30,106
23-2011	Paralegals and Legal Assistants	4	1	\$42,788
47-2152	Pipe Fitters and Steamfitters	9	1	\$53,986
51-5112	Printing Press Operators	1	1	\$34,850
11-3051	Quality Control Systems Managers	1	1	\$101,380
11-2022	Sales Managers	6	1	\$113,015
43-5071	Shipping, Receiving, and Traffic Clerks	1	1	\$34,067
51-2092	Team Assemblers	5	1	\$31,017
15-1199	Data Warehousing Specialists	1	0	\$37,056
11-2021	Marketing Managers	5	0	\$110,092
47-2152	Plumbers	3	0	\$53,986
19-4099	Quality Control Analysts	3	0	\$40,028
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic			\$30,572
49-2092	Electric Motor, Power Tool, and Related Repairers			\$53,300
17-2141	Mechanical Engineers			\$70,214
	Grand Total	1,492	238	

Appendix C: Degrees Hired and Frequency (Number of employer respondents out of 66 total)

Degree	Frequency	Percent of Total
Cluster 4 - Business Management & Administration	40	51%
Cluster 13 - Manufacturing	30	38%
Cluster 6 - Finance	29	37%
Cluster 15 - Science, Technology, Engineering & Mathematics	25	32%
Cluster 11 - Information Technology	23	29%
Cluster 14 - Marketing	21	27%
Cluster 10 - Human Services	17	22%
Cluster 16 - Transportation, Distribution & Logistics	16	21%
Cluster 5 - Education & Training	13	17%
Cluster 8 - Health Science	9	12%
Cluster 1 - Agriculture, Food & Natural Resources	7	9%
Cluster 2 - Architecture & Construction	7	9%
Cluster 12 - Law, Public Safety, Corrections & Security	7	9%
Cluster 3 - Arts, Audio/Video Technology & Communications	5	6%
Cluster 9 - Hospitality & Tourism	3	4%
Cluster 7 - Government & Public Administration	1	1%

Appendix D: Recruitment Sources, Write-in Responses

Ads
 Job Boards
 Referrals from other employees
 Open market
 I have to seek employees
 Advertising and referrals
 Jobs Fairs, Referrals from current employee, Workforce Development, ResCare, Networking with others in our industry
 Wed site and newspaper advertising
 Word of Mouth
 Employee Referrals
 Internet
 Employment Ads
 referral from current employees
 AZA
 News Paper, On Line
 Referrals
 We have to hire from the union
 Newspaper and word of mouth
 Temp-to-hire
 Union hall
 County Job Centers , Internet Adverts and Job Fairs