MORAINE PARK TECHNICAL COLLEGE

Environmental Scanning 2014-2015



235 North National Avenue Phone: 920-924-3229 Fax: 920-907-6901 E-Mail: bljubenko@morainepark.edu Web: www.morainepark.edu

Table of Contents

Facts, Trends and Forecasts	2
Population	2-3
Economy	5-6
District Unemployment Statistics	7
Education	8-9
Percent of H.S. students enrolled at MPTC	10
Hottest Trends	11-12
Moraine Park Technical College District County Summary	13
Industry at a Glance County Summary 1	4-26

FACTS, TRENDS AND FORECASTS

Key assumptions for the 2014-2015 fiscal year quantify the emerging trends identified throughout environmental scanning. Specific trends are established based upon the most current available information and help to build the strategic plan necessary to carry out the mission of the College.

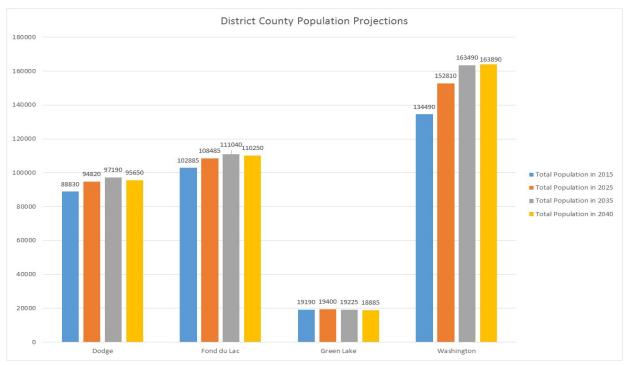
Environmental Scanning is a necessary tool for planning the long-term strategic direction of Moraine Park Technical College. This process can help proactively define the opportunities, potential threats, or areas of change that will impact the college from internal and external environmental factors. This trend information can help the college overall, as well as individual teams, and support the development and implement goals and strategies.

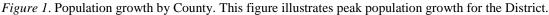
POPULATION/ECONOMY/EDUCATION/HOTTEST TRENDS

External influences play a major factor in the direction of the College. Understanding the population, economy, and societal trends for the MPTC District will provide guidance for institutional and strategic planning.

POPULATION

MPTC's District extends across multiple counties within the state including Green Lake, Dodge, Fond du Lac and Washington with main campuses located in Fond du Lac, Washington and Dodge counties. Counties within the College District continue to show growth in population. Figure 1 depicts a report from the Demographic Services Center which suggests that peak population for Fond du Lac and Dodge County will occur in the year 2035. Washington County will experience peak population growth in 2040, and is projected to be one of the 10 fastest growing counties in the state. Green Lake County will experience peak population growth in 2025. Under this projection, the MPTC District will collectively experience moderate population increase.





Source: http://www.doa.state.wi.us/Divisions/Intergovernmental-Relations/Demographic-Services-Center/Wisconsin-Population-Projections/

It is important to note population growth declined only in periods of recessions (1970,

1974, 1980, 1982, 2001, 2008, and 2009). This is reflected in figure 2 for Dodge, Fond du lac,

Washington and Green Lake counties.

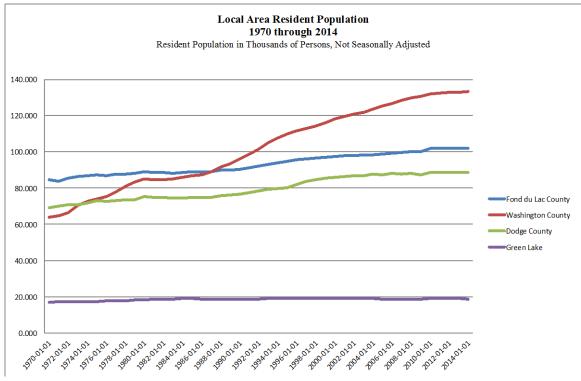


Figure 2. Historical population comparison by County. This figure illustrates growth trend for the District.

Source: US. Bureau of the Census, *Resident Population in Fond du Lac County, WI; Washington County, WI; Dodge County, WI; Green Lake County, WI*, retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/WIFOND0POP/, April 10, 2015.

In addition to population, the demographics of the student is also an important factor to consider. According to the National Center for Education Statistics "in recent years, the percentage increase in the number of students age 25 and over has been larger than the percentage increase in the number of younger students, but the difference between these rates of increase is expected to narrow." This pattern is similar to the MPTC District in aggregate but is slightly different when compared on a county-to-county basis.

ECONOMY

MPTC's District private sector growth continued to expand from January to December in 2014 and has an optimistic outlook for future economic activity in 2015.

Job opening gains were widespread across all MPTC District counties. The Wisconsin Technical College System (WTCS) reported increased employment in the medical, manufacturing, and business industry. These trends are highlighted in figure 3 below for Fond du Lac WI which represents the District overall as all counties experienced job growth.

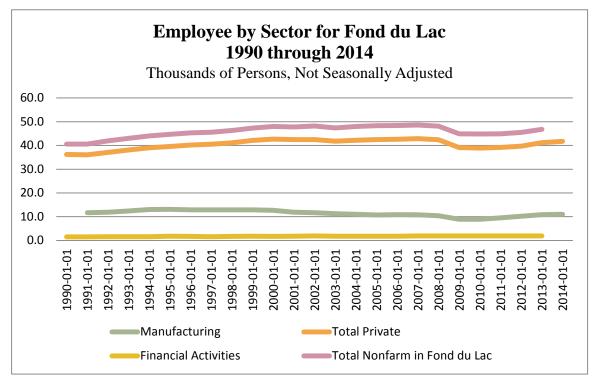


Figure 3. Number of employees by sector. This figure provides historical data on the number of employees by sector for Fond du Lac, WI.

Source: Federal Reserve Bank of St. Louis and US. Bureau of Labor Statistics, *All Employees: Manufacturing, Total Private, Financial Activities, Total Nonfarm in Fond du Lac, WI (MSA)* [SMU5522540300000001A], retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/SMU5522540300000001A/, April 10, 2015.

Reporting by the 2013 WTCS Graduate Follow-Up Report

(http://www.wtcsystem.edu/about-us/wtcs-overview) indicates that 73% of the employed graduates are in an occupation related to their training. Median annual salary for an Associate Degree is \$36,397, Two-Year Technical Diploma \$33,280, One-Year Technical Diploma \$30,158, and Short-Term Technical Diploma \$25,520. Firm's pricing power remained limited; National business inflation continues to be around 2 percent; while wages have increased at a modest pace. The outlook for future economic activity for the District is moderate growth in employment levels and capital spending for 2015.

In addition, the unemployment rate continues to decline throughout the District as shown in figure 4. However, skilled trade jobs, drivers, information technology and low-skilled positions remain a challenge to fill. The outlook for future unemployment rates will be continuity of rate decline.

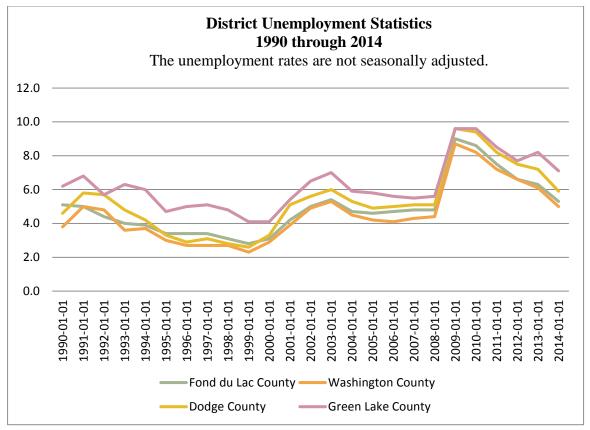


Figure 4. Unemployment rates by County. This figure provides historical data on the unemployment rate for the District.

Source: US. Bureau of Labor Statistics, *Unemployment Rate in Fond du Lac County WI*; *Washington County, WI*; *Dodge County, WI*; *Green Lake County, WI*, retrieved from FRED, Federal Reserve Bank of St. Louis https://research.stlouisfed.org/fred2/series/WIFOND0URN/, April 10, 2015.

EDUCATION

In 2014, WTCS introduced an Outcome-Based Funding (formerly known as a Performance-Based Funding) model as a means to clearly demonstrate colleges' positive outcomes, and to support continuous improvement in areas of strategic importance to the System. Act 20 specifies nine criteria to be used to determine the outcome-based funding. The WTCS Board has responsibility for identifying specific measures within each of the nine areas, and developing a model that is reflective of these measures. Act 20 allows colleges to identify 7 of the 9 criteria on which to be measured for the purposes of receiving outcome-based funding. The nine performance metrics include:

- Placement rate of students in jobs related to students' programs of study
- Number of degrees and certificates awarded in high-demand fields
- Number of programs or courses with industry-validated curricula
- Transition of adult students from basic education to skills training
- Number of adults served by basic education courses, adult high school, or English language learning courses, courses that combine basic skills and occupational training as a means of expediting basic skills remediation, and the success rate of adults completing such courses
- Participation in dual enrollment programs
- Workforce training provided to businesses and individuals
- Participation in statewide or regional collaboration or efficiency initiatives
- Training or other services provided to special populations or demographic groups that can be considered unique to the district

Outcome based funding accounts for 10% of total state funding for the fiscal year (FY) 2014-15. The amount of performance funding will increase by increments of 10% until reaching 30% in FY2016-17. On a national level, thirty states—Arizona, Arkansas, Florida, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, New Mexico, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin, and Wyoming—use some form of performance funding.

One of the criterion focuses on the participation in dual enrollment programs. MPTC is a leader in this area and continues to raise community awareness of the importance of a college education. The College maintains a strategic commitment to dual enrollment programs, and economic empowerment through the power of education considered within the context of wider socioeconomic change. The following figure shows the participation of high schools in the District for the 2013-14 academic year;

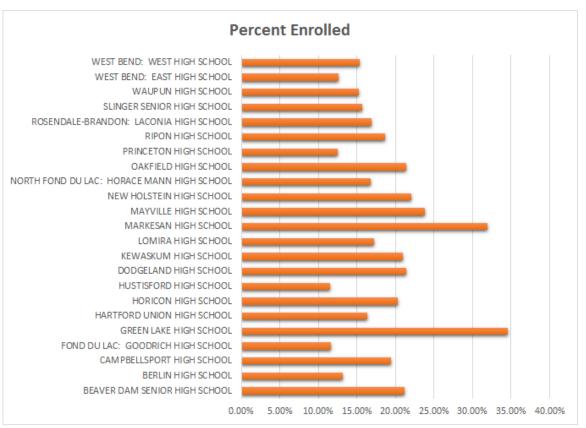


Figure 5. High School student's percent enrolled at MPTC. This figure provides data for the 2013-14 academic year of high schools students enrolled in the College's dual enrollment programs.

Source: Public High School Graduates Enrolling at WTCS by High School and District, District: Moraine Park Technical College, High School Graduation Year: 2013 WTCS Enrollment Through Academic Year: 2013-2014 Program Aid Codes: 10, 30, 31, 32, 50, 20, CLI646A.

HOTTEST TRENDS

Additive manufacturing (AM) is any manufacturing process where parts are built up from raw material rather than cut out of a stock material such as a wood or metal. MPTC has a 3D printer at the West Bend campus as pictured below.



Figure 6. This picture of the 3D printer at the West Bend campus.

The 3D printer at the West Bend campus allows students to create, explore and experiment with unique designs. 3D printing is not a new technology, as it has been around since 1984, although it is evolving. However, 3D engineering education and training are new. Combining all three together is a novel approach. In 2011, United States President's Council of Advisors on Science and Technology (PCAST) recommended for government to support "academia and industry for applied research on new technologies and design methodologies." In 2012, the National Network for Manufacturing Innovation (NNMI) was proposed to be a collaborative network that focuses on combining public-private partnership between U.S. industry, education, and federal government agencies. In 2013, many analysts have predicted that, just as the key patents that prevent competition expire, 3D printing revolutionizing of manufacturing will soon flourish. These patents expired in 2014, but increase in new patents decreased the overall elasticity of 3D market in which innovators operate. Additive manufacturing remains expensive, but is likely to become more affordable as time goes on.

Douge County Wisconsin Summary.									
Top Industries by Employment - 3rd QTR 2014:	Top Paying Hourly Occupations - 2013		aneous nation:						
Fabricated Metal Product Mfg.	Family and General Practitioners \$ 120.70	Avg. Home Cost - 2nd Qtr. 2013	\$ 116,250						
Machinery Mfg.	Physicians and Surgeons, All Other \$ 107.41	Per Capita Income - 2013	\$ 38,189						
Food Services & Drinking Places	Chief Executives \$ 87.61	Number of K-12 Public Schools	28						
Edu Services	Pharmacists \$ 53.99	Number of Post- Secondary Schools	2						
Nursing & Residential Care Facilities	Financial Managers \$ 52.90								

Dodge County Wisconsin Summary:

Green Lake County Wisconsin Summary:

Top Industries by Employment - 3rd QTR 2014:	Top Paying Hourly Occupations - 2013	Miscella Inform	
Food Mfg.	First-Line Supervisors of Non-Retail Sales Workers \$ 41.50	Avg. Home Cost - 2nd Qtr. 2013	\$ 117,450
Executive Legislative & General Gov.	General and Operations Managers \$ 38.37	Per Capita Income - 2013	\$ 43,915
Edu Services	Industrial Production Managers \$ 38.16	Number of K-12 Public Schools	12
Nursing & Residential Care Facilities	Management Occupations \$ 35.49	Number of Post- Secondary Schools	0
Truck Trans	Accountants and Auditors \$ 34.32		

Fond du Lac County Wisconsin Summary:

Top Industries by Employment - 3rd QTR 2014:	Top Paying Hourly Occupations - 2013	Miscellaneous Information:		
Machinery Mfg.	Dentists, General \$ 105.42	Avg. Home Cost - 2nd Qtr. 2013	\$ 118,000	
Food Services & Drinking Places	Family and General Practitioners \$ 104.98	Per Capita Income - 2013	\$ 40,873	
Edu Services	Physicians and Surgeons, All Other \$100.81	Number of K-12 Public Schools	49	
Food Mfg.	Chief Executives \$ 85.04	Number of Post- Secondary Schools	7	
Ambulatory Health Care Services	Pharmacists \$ 61.65			

Washington County Wisconsin Summary:

Top Industries by Employment - 3rd QTR 2014:	Top Paying Hourly Occupations - 2013	Miscellaneous Information:		
Food Services & Drinking Places	Chief Executives \$ 99.35	Avg. Home Cost - 2nd Qtr. 2013	\$ 177,400	
Fabricated Metal Product Mfg.	Sales Managers \$ 62.00	Per Capita Income - 2013	\$ 48,935	
Machinery Mfg.	Architectural and Engineering Managers \$ 61.84	Number of K-12 Public Schools	37	
Ambulatory Health Care Services	Pharmacists \$ 57.57	Number of Post- Secondary Schools	5	
Edu Services	General and Operations Managers \$ 55.26			

Source: Originally retrieved 05/16/2015 from http://worknet.wisconsin.gov/worknet/jsprofile.aspx?menuselection=js

Industry at a Glance County Summary

The manufacturing industry was the leading source of income and employment in three largest Moraine Park Technical College member counties. In Washington County, the manufacturing industry is losing its leading position to the accommodation and food service sector, with especially strong growth in food services and drinking places industrial subsector.

Industries in the Food Services and Drinking Places subsector prepare meals, snacks, and beverages to customer order for immediate on-premises and off-premises consumption. There is a wide range of establishments in these industries. Some provide food and drink only; while others provide various combinations of seating space, waiter/waitress services and incidental amenities, such as limited entertainment. The industries in the subsector are grouped based on the type and level of services provided. The industry groups are full-service restaurants; limited-service eating places; special food services, such as food service contractors, caterers, and mobile food services; and drinking places.

North American Industry Classification System

(http://www.bls.gov/iag/tgs/iag722.htm)

The highest paying jobs in two counties were health-related, while two other counties highest paying jobs ranged from executive to non-executive management.

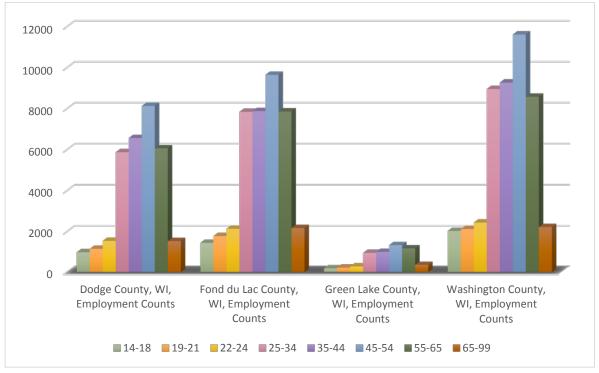
Median value of owner-occupied housing units, 2009-2013 was at \$ 167,100 for Wisconsin and \$ 176,700 for United States of America

(http://quickfacts.census.gov/qfd/states/55000.html). Washington county average home cost

for 2nd quarter 2013 was \$ 177,400, highest among four counties.

Moraine Park Technical College	14.10	10.21	22.24	25.24	25.44			CE 00
District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	979	1,149	1,541	5,876	6,569	8,134	6,068	1,531
Fond du Lac County, WI	1,445	1,780	2,136	7,844	7,883	9,651	7,862	2,175
Green Lake County, WI	183	218	280	947	997	1,332	1,167	353
Washington County, WI	2,032	2,125	2,442	8,961	9,272	11,619	8,579	2,223

Full-Quarter Employment (Stable): Age Counts 2014 Q1

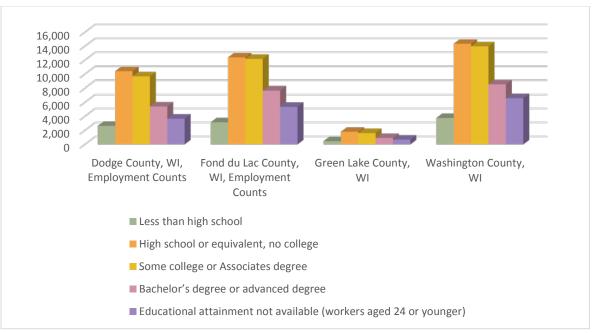


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age, http://qwiexplorer.ces.census.gov

*All four district counties had the highest employment group for ages 45-54 years of age, while the second highest employment group in each district county was for ages 35-44 years of age

Moraine Park Technical College District County	Less than high school	High school or equivalent, no college	Some college or Associates degree	Bachelor's degree or advanced degree	Educational attainment not available (workers aged 24 or younger)
Dodge County, WI	2,647	10,422	9,693	5,417	3,670
Fond du Lac County, WI	3,156	12,394	12,184	7,683	5,362
Green Lake County, WI	467	1,800	1,611	917	681
Washington County, WI	3,778	14,351	13,982	8,542	6,599

Full-Quarter Employment (Stable): Education Attainment Counts 2014 Q1

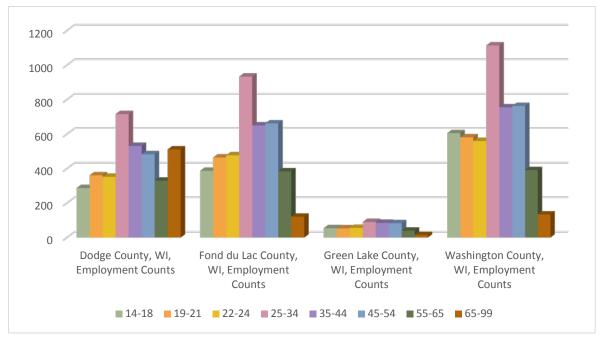


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment http://qwiexplorer.ces.census.gov

*All four district counties showed employment with the educational attainment with a high school diploma or equivalent, no college, while the second highest educational attainment for each district county was some college or Associates degree

Moraine Park Technical College District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	287	361	352	716	531	483	330	511
Fond du Lac County, WI	387	464	477	933	650	662	384	121
Green Lake County, WI	54	53	56	90	85	83	40	15
Washington County, WI	605	581	560	1,114	755	763	391	134

Hires New by Age Counts 2014 Q1



Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age by New Hire, http://qwiexplorer.ces.census.gov

*All four district counties showed the highest rate of new hires were of the ages between 25-34

years of age, while the second highest rate of new hires was split between the four counties,

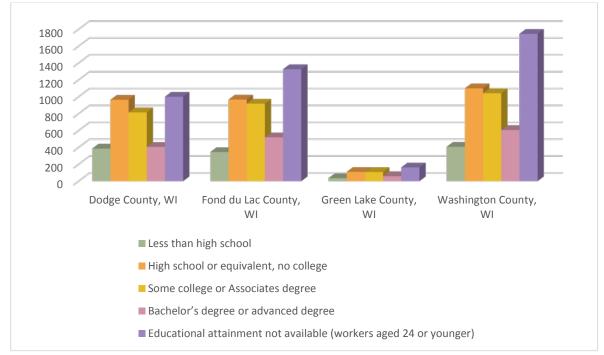
Dodge County and Green Lake County had new hires between the ages of 35-44 years of age,

Fond du Lac County and Washington County had new hires between the ages of 45-54 years of

age

J					
					Educational
					attainment not
		High school or		Bachelor's	available
Moraine Park Technical College	Less than high	equivalent, no	Some college or	degree or	(workers aged 24
District County	school	college	Associates degree	advanced degree	or younger)
Dodge County, WI	386	964	815	407	1,001
Fond du Lac County, WI	345	967	919	520	1,327
Green Lake County, WI	36	110	108	59	163
Washington County, WI	408	1,100	1,042	606	1,746

Hires New by Education Attainment Counts 2014 Q1

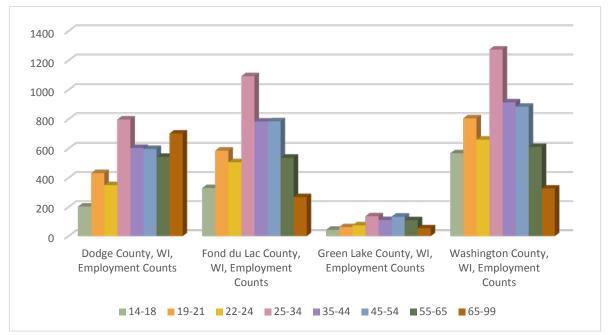


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment by New Hire <u>http://qwiexplorer.ces.census.gov</u>

*All four district counties had the highest group for new hires with education attainment that was unavailable because workers were under the age of 24 years old or younger, while the second highest rate for all four counties was new hires with a high school or equivalent, no college

1 2	1	, 0		`				
Moraine Park Technical College District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	204	433	351	798	604	597	544	703
Fond du Lac County, WI	331	586	507	1,093	784	786	538	269
Green Lake County, WI	44	62	74	137	111	134	110	54
Washington County, WI	568	806	661	1,275	915	885	612	328

Employment Separations by Age Counts 2014 Q1



Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age by Separations, http://qwiexplorer.ces.census.gov

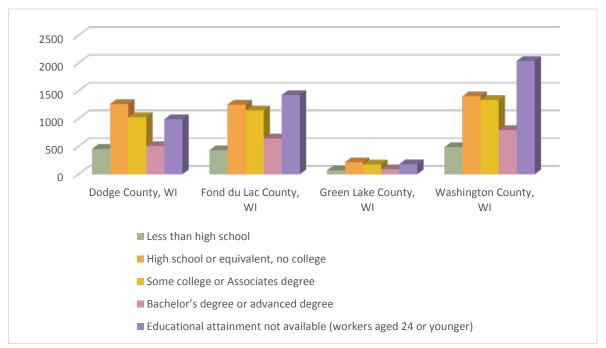
*All four district counties had the highest rate of employment separation for the ages between

25-34 years of age, while the second highest rate for two of the district counties with

employment separation was for the ages of 45-54 years of age

	-			-	Educational
					attainment not
		High school or		Bachelor's	available
Moraine Park Technical College	Less than high	equivalent, no	Some college or	degree or	(workers aged 24
District County	school	college	Associates degree	advanced degree	or younger)
Dodge County, WI	455	1,261	1,024	506	988
Fond du Lac County, WI	430	1,251	1,147	642	1,424
Green Lake County, WI	69	214	175	88	179
Washington County, WI	485	1,402	1,335	794	2,035

Employment Separations by Education Attainment Counts 2014 Q1

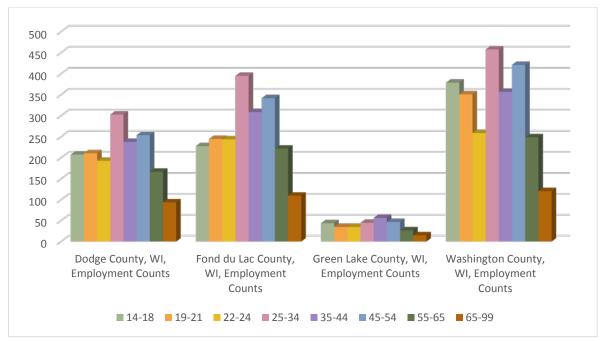


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment by Separations, <u>http://qwiexplorer.ces.census.gov</u>

*Two district counties had the highest separation rate with the educational attainment for employees who had a high school diploma or equivalent, no college. While two district counties had the highest separation rate with educational attainment that was not available due to employees who were 24 years old or younger

Moraine Park Technical College								
District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	208	211	193	303	238	254	167	94
Fond du Lac County, WI	228	245	244	395	309	342	222	110
Green Lake County, WI	44	35	35	45	57	47	27	15
Washington County, WI	379	351	259	458	357	421	249	121

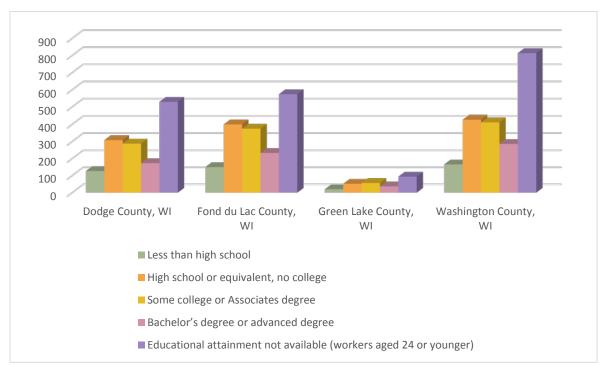
Firm Job Gains: Counts (Job Creation) by Age Counts 2014 Q1



Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age by Job Creation, http://qwiexplorer.ces.census.gov

*Job gains for three of the four district counties showed the highest rate for ages between 25-34 years of age, while one district county showed the highest rate for ages between 34-44 years of age. The second highest job gains for three of the district counties was for the ages between 45-54 years of age

	,	•			-
					Educational
					attainment not
		High school or		Bachelor's	available
Moraine Park Technical	Less than high	equivalent, no	Some college or	degree or	(workers aged
College District County	school	college	Associates degree	advanced degree	24 or younger)
Dodge County, WI	127	308	288	173	530
Fond du Lac County, WI	150	400	375	233	574
Green Lake County, WI	20	52	57	37	94
Washington County, WI	166	427	412	286	814

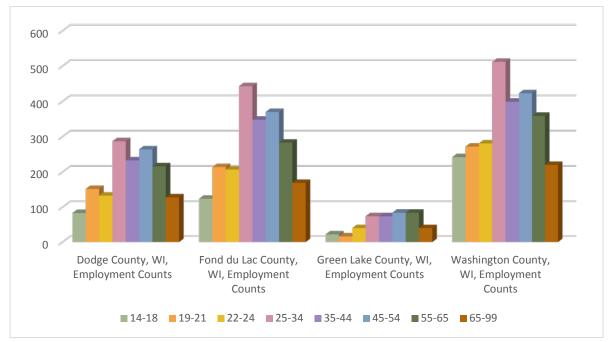


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment by Job Creation, <u>http://qwiexplorer.ces.census.gov</u>

*All four district counties showed the highest rate of job gains with an educational attainment that was not available due to workers who were under the age of 24 years. The second highest rate of job gains in three counties were workers with a high school or equivalent, no college, and one county with workers who had some college or Associates degree

Moraine Park Technical College District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	83	152	133	287	233	264	216	128
Fond du Lac County, WI	124	214	207	443	348	370	283	169
Green Lake County, WI	22	16	40	74	74	84	84	40
Washington County, WI	242	272	281	512	399	423	359	220

Firm Job Loss: Counts (Job Destruction) by Age Counts 2014 Q1

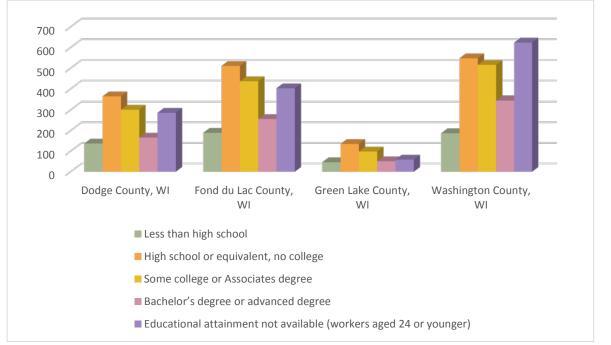


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age by Job Loss, http://qwiexplorer.ces.census.gov

*Three district counties showed the highest rate of job loss for the ages 25- 34 years of age, while one district county showed the highest rate of job loss for ages 45- 54 years of age and 55- 65 years of age. The second highest job loss for all four counties was for ages 45- 54 years of age

		/ 5			<u> </u>
					Educational
					attainment not
		High school or		Bachelor's degree	available
Moraine Park Technical College	Less than high	equivalent, no	Some college or	or advanced	(workers aged 24
District County	school	college	Associates degree	degree	or younger)
Dodge County, WI	137	364	301	166	286
Fond du Lac County, WI	189	511	437	256	403
Green Lake County, WI	46	135	98	51	59
Washington County, WI	187	548	516	345	624

Firm Job Loss: Cour	ts (Job Destruction) by Education	Attainment C	Counts 2014 O1
I IIII JOU LODD, COUL		I) by Laucation	r muniment C	$\sqrt{2011}$

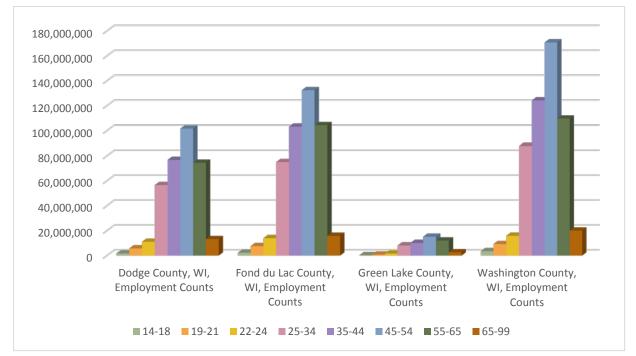


Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment by Job Loss, <u>http://qwiexplorer.ces.census.gov</u>

*Three of the district counties with the highest rate of job loss by education attainment was high school or equivalent, no college. While one district county had the highest rate of job loss by educational attainment that was unavailable due to workers under the age of 24 years of age. The second highest rate of job loss by education attainment for three of the district counties was some college or Associates degree and one district county with high school or equivalent, no college

-			-	-				
Moraine Park Technical College District County	14-18	19-21	22-24	25-34	35-44	45-54	55-65	65-99
Dodge County, WI	1,747,676	5,791,568	11,089,471	56,607,245	76,759,424	101,714,249	74,522,753	13,216,364
Fond du Lac County, WI	2,343,354	7,615,925	14,016,076	75,087,081	103,215,339	132,469,521	104,421,864	15,862,346
Green Lake County, WI	240,806	804,627	1,652,139	8,150,850	10,160,718	15,170,714	12,108,039	2,664,048
Washington County, WI	3,544,779	9270,646	15,942,573	87,851,064	124,279,834	170,816,582	109,740,237	20,093,304

Payroll- Total Quarterly Payroll: Sum by Age Counts, Dollars 2014 Q1



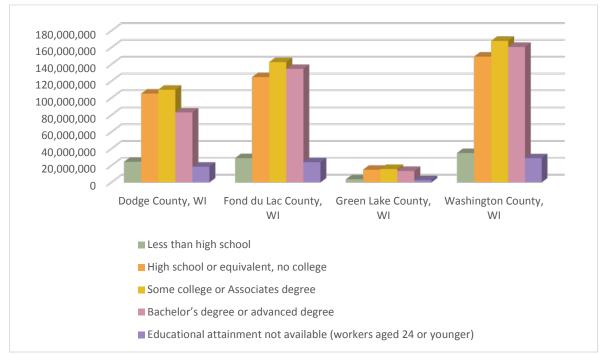
Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership by Age by Total Quarterly Payroll Sum, <u>http://qwiexplorer.ces.census.gov</u>

*The highest rate for payroll- total quarterly payroll for all four district counties was for the ages between 45- 54 years of age, while the second highest rate for two of the counties was for the ages between 35- 44 years of age and two counties was for the ages between 55- 65 years of

age

-	• •	•			-
Moraine Park Technical College District County	Less than high school	High school or equivalent, no college	Some college or Associates degree	Bachelor's degree or advanced degree	Educational attainment not available (workers aged 24 or younger)
Dodge County, WI	24,573,854	105,247,750	109,818,659	83,179,762	18,628,716
Fond du Lac County, WI	28,829,398	124,883,014	142,701,768	13,4641,947	23,975,354
Green Lake County, WI	3,739,619	15,038,045	15,879,253	13,597,456	2,697,571
Washington County, WI	34,880,942	149,236,684	167,917,764	160,745,621	28,757,999

Payroll- Total Quarterly Payroll: Sum by Education Attainment Counts, Dollars 2014 Q1



Source: Census Quarter 2014 Q1, Firm Ownership: All Ownership, by Education Attainment by Total Quarterly Payroll Sum, <u>http://qwiexplorer.ces.census.gov</u>

*The highest payroll- total quarterly payroll by education attainment for all four counties was with some college or Associates degree, while the second highest for three of the counties was high school or equivalent, no college and one county with a bachelor's degree or advanced degree