

February 21, 2012

Chairman Lee Holloway
Milwaukee County Board of Supervisors
901 N. 9th Street
Milwaukee, WI 53223

Dear Chairman Holloway,

The members of the Milwaukee County Apprenticeship Work Group have fulfilled their charge to research questions about how to improve access to apprenticeships.

Since its inception, the Work Group met regularly to address the research questions articulated in the enabling resolution. This report shares the result of that extensive inquiry. The Work Group compiled information about apprenticeship programs in the Milwaukee area and how best to increase their diversity. We hosted a number of speakers who have made presentations to the Work Group and the main points of their presentation. On behalf of the entire Work Group, we are pleased to present you with our findings and recommendations.

2007 was the peak year for apprenticeship positions in the Milwaukee area overall as well as the peak year for minority participation. The number of large public construction projects with apprenticeship utilization and local disadvantage worker hiring standards appear to have helped drive those positive results. Apprenticeships have since declined, part of the overall "jobless recovery." The recession has undone recent progress towards more diversity in apprenticeship employment in the Milwaukee area. As the spring construction season begins, it will be important to monitor access and to take steps to ensure that minority share of total apprenticeships rebounds.

In terms of Milwaukee County's role in fostering apprenticeship opportunity, the Work Group recommends that the Board of Supervisors adopt a policy that requires apprenticeship utilization on county projects. In the collective experience of Work Group members, rules that drive demand for diversity in the public contracting realm are important tools to achieving our desired goals.

Sincerely,

Pamela Fendt
Work Group chair

Milwaukee County Apprenticeship Work Group Report to County Board of Supervisors

February 2012

Purpose of the Milwaukee County Apprentice Workgroup

In 2007 Lee Holloway, Chairman of the Milwaukee County Board of Supervisors, spearheaded legislation to establish a Milwaukee County Apprenticeship Work Group. The Apprentice Work Group was created to monitor and recommend quality and continuous improvement measures relative to apprenticeship programs and standards within Milwaukee County.

The general charge of the work group was to enhance and improve apprenticeship standards, awareness, education, and recruitment methods *in order to increase diversity among apprenticeship components of Milwaukee County's labor force.*

The specific objectives of the Apprentice Work Group include:

- increase education and awareness of apprenticeship programs within Milwaukee;
- identify and target potential funding sources and grants to increase employer-driven paid training;
- collaborate with the City of Milwaukee, Milwaukee Public Schools, Milwaukee Area Technical College and the State of Wisconsin to support skills training to increase apprenticeship opportunities;
- work with the State to reform apprenticeship selection procedures to increase diversity, increase testing scores, and make apprentice trades more open to central city residents.

This report will:

- summarize the work and findings of the Apprentice Work Group
- report on progress that has been made in increasing apprentice diversity
- identify barriers in providing apprenticeship opportunities to disadvantaged individuals
- make recommendations for improvements in access to formal apprenticeships

The Apprentice Work Group is comprised of nine appointed members, all of whom have a significant experience in the area of apprentice programming from a variety of perspectives. A list of Work Group members is included at the back of this report. The knowledge and experience of the Work Group members form the core component of this report, along with statistical data on apprenticeships, information from additional Milwaukee area experts and stakeholders knowledgeable about apprenticeships, and research literature. In late 2010 the Work Group submitted a process report on the proceedings of the Work Group since its formation, with summary information provided by each of the invited speakers who appeared to present information about apprenticeship issues in the Milwaukee area.

Historical background on Apprenticeship

2011 marked the 100th anniversary of the apprenticeship system in our state. Wisconsin passed the nation's first apprenticeship law in 1911. In the same year, Wisconsin's vocational school system (the current Wisconsin Technical College System) was established to provide the complementary instruction for apprentices. Wisconsin's law became a model for other states and for the federal government.

Apprenticeships were widely available in Milwaukee up until approximately 20 years ago. Since then the number of apprenticeships has been on the decline. Manufacturing employment in Milwaukee has been declining for nearly 40 years. This is largely due to the trend of deindustrialization in the United States. Milwaukee has retained a larger share of its manufacturing base than most cities in the U.S. Still, assembly and manufacturing jobs have been downsized or outsourced thus leading to fewer employment and apprenticeship opportunities in Milwaukee. For example, a generation ago, manufacturing companies in the area had dozens of apprentices at any one time. But now, those numbers have greatly diminished. The decline of manufacturing apprenticeships has led to an increased focus on construction trades apprenticeship opportunities as a good-paying career that does not require a college degree.

What is Apprenticeship?

Among the general public, there is a lack of uniformity in the definition of what apprenticeship is. An apprentice is NOT a trainee and is NOT a junior worker.

Definitions of Apprenticeship

Wisconsin's Bureau of Apprenticeship Standards

"Apprenticeship is a structured system of training designed to prepare individuals for skilled occupations. It combines **on-the-job training** under the supervision of experienced journey workers with related **classroom instruction**. Apprentices who successfully complete the prescribed number of hours of training in an apprenticeship program become certified skilled workers." <http://dwd.wisconsin.gov/apprenticeship/>

U.S. Department of Labor, Employment and Training Administration,

"Registered Apprenticeship programs meet the skilled workforce needs of American industry, training millions of qualified individuals for lifelong careers since 1937. Registered Apprenticeship helps mobilize America's workforce with structured, on-the-job learning in traditional industries such as construction and manufacturing, as well as new emerging industries such as health care, information technology, energy, telecommunications and more. Registered Apprenticeship connects job seekers looking to learn new skills with employers looking for qualified workers, resulting in a workforce with industry-driven training and employers with a competitive edge." <http://www.doleta.gov/oa/faqs.cfm>

The classroom instruction received by the apprentices in the Milwaukee area is provided by approved training entities that can include union construction trade training programs, Milwaukee Area Technical College, Milwaukee Public Schools or other recognized educational institutions and companies.

In Wisconsin, the requirements for entry into an apprenticeship and the training provided are determined by the State of Wisconsin's Bureau of Apprenticeship Standards and state law.

With a chronic gap between the number of available jobs in the Milwaukee area and the number of jobseekers, it is easy to see why apprenticeship programming is a focus of attention. The “earn while you learn” aspect of apprenticeship, and the stepped, clear pathway to a career that a registered apprenticeship program offers are very attractive. Concerns about equitable access to apprenticeship opportunities have been raised on the local and state levels over the past several years. **One of the primary charges of this Work Group is examining information about barriers to diversity in local apprenticeship programs.**

Apprenticeship Programs in Wisconsin

Although the construction trades are often the focus of attention, apprenticeship programs can be pursued in the manufacturing/industrial and service trades too. The State Department of Workforce Development, Bureau of Apprenticeship Standards certifies and oversees all apprenticeship programs – the coursework and processes. Application procedures to become an apprentice vary from trade to trade, sector to sector. The table below lists the apprenticeship programs within each of the sectors.

Construction Trades	Industrial Trades	Service Trades
Bricklayer	Electrical and Instrumentation Technician	Barber Cosmetologist
Carpenter	Industrial Maintenance Electrician	Child Care Development Specialist
Cement Mason/Concrete Finisher	Industrial Pipefitter	Cook/Chef
Construction Craft Laborer	Injection Molding Machine Setter	Correctional Officer
Electrician (Construction)	Machinist	Electric Line Worker
Environmental Service Technician/HVAC	Maintenance Mechanic	Fire Service
Installer-Technician	Metal Fabricator/Welder	Funeral Director
Glazier	Mold Maker	Metering Technician
Heat and Frost Insulator	Tool and Die Maker	
Ironworker	Printer	
Operating Engineer/Heavy Equipment Operator		
Painter & Decorator		
Plasterer		
Plumber		
Roofer		
Sheet Metal Worker		
Sprinkler-fitter		
Steamfitter		
Teledata Communications		

Source: Wisconsin Department of Workforce Development

As shown in the preceding table, there are numerous apprentice programs across sectors. The Milwaukee County Apprentice Workgroup largely focused on apprenticeships programs in the construction and industrial trades, because they account for the vast majority of apprenticeships in Wisconsin.

Industrial Sector

Industrial apprenticeships were much more plentiful in Milwaukee's past. Globalization's effect on local manufacturing employment has also naturally had an effect on apprenticeships as well. There are still positions available, though. Recently Miller/Coors Brewing and Caterpillar were actively seeking new apprentices at their facilities in the Milwaukee area. Other examples of employers offering industrial apprenticeship include Master Lock Co., Harley-Davidson Motor Co., ATI Ladish Forging, Bradley Corp., and WE Energies.

Applying for an apprenticeship in the manufacturing or industrial sector requires applying directly to the employer or company that sponsors the apprenticeship program. Sometimes you must be hired by the employer in another capacity before apprenticeship opportunities become available. The employer determines the criteria to place applicants into the program, either through collective bargaining agreements or other criteria.

Construction Sector

For construction trades, the application process is generally governed by a trade committee composed of equal representation of employee representatives and employers. Each committee develops its own policies and practices, which are approved by the Wisconsin Department of Workforce Development, Bureau of Apprenticeship Standards. Half of Wisconsin's apprentices are in the construction trades. Comprehensive information about the application process for each trade can be found at:

http://dwd.wisconsin.gov/apprenticeship/construction_trades.htm

How Do I Apply For Apprenticeship in the Construction Trades?

The application process for construction trades varies depending on the trade and the area of the state. Construction trade apprenticeships are sponsored by local trade committees comprised of skilled workers and employers who are advisory to the Bureau of Apprenticeship Standards. Committee members recommend approval of qualified applicants to the Bureau. Each committee develops its own policies and practices, with approval from the Bureau of Apprenticeship Standards, for operating its apprenticeship program and for selecting apprentices.

Each local committee takes applications. Each committee will determine the selection items required for the selection process. These may include an aptitude test, an interview with the committee, high school transcript, proof of graduation or equivalent, birth certificate, valid driver's license, etc. Once all application materials are on file and the applicant is deemed to be qualified, the committee will notify the applicant as to the next step in the procedure.

The construction trades use two methods for the actual placement of apprentices in jobs: the rank order list and the letter of introduction.

In the rank order list method, the committee creates a list of candidates in order of their accumulative scores on written and oral examinations. An employer seeking an apprentice will make a request to the appropriate apprenticeship committee. The committee will contact the next person on the list and ask him/her to report for acceptance into the apprenticeship program and to sign the contract.

In the letter of introduction method, applicants who meet the basic requirements are given a letter from the sponsoring committee stating they are eligible to be hired as apprentices. They must then find an employer to sponsor their apprenticeship. Frequently the committee will provide a list of participating employers.

(Source: http://dwd.wisconsin.gov/apprenticeship/construction_trades.htm)

An apprenticeship opportunity becomes available when an employer who is qualified as a “Trade Trainer” is performing the work. The state of Wisconsin outlines the guidelines that the employer must meet.

- Primary responsibility of a trainer is to provide the on-the-job training to the apprentice under the supervision of skilled workers.
- Pay the apprentice wages for work performed and for hours of related instruction required of the program as outlined in the apprentice contract.
- Release the apprentice from work to attend related instruction.

(Source: <http://dwd.wisconsin.gov/apprenticeship/faq/faq2.htm#q3>)

There are more than 3,000 employers who employ and train apprentices currently listed on the Department of Workforce Development list.

Milwaukee NAACP Activism on Access to Apprenticeships

In 2006 the NAACP of Milwaukee released “Report Card on Minority and Female Participation in Construction Trade Apprentices in the Milwaukee Area: Who’s in the Pipeline for Skilled Construction Trades” co-authored by Lois M. Quinn of the Employment and Training Institute at UW Milwaukee and Ruth Zubrensky, a long-time civil rights activist and member of the Milwaukee Branch of the NAACP. Statistics from the 2006 NAACP report were cited by Chairman Lee Holloway as supporting evidence for the establishment of this Work Group in the County Board resolution passed in late 2007. The Work Group membership was established the following year.

The NAACP has issued two follow up reports, in 2008 and 2010. Mrs. Zubrensky had long petitioned the Wisconsin Bureau of Apprenticeship Standards to do more to foster diversity in apprenticeship opportunities and for public release of data on progress towards more inclusive programs. Mrs. Zubrensky deserves much credit for helping to bring the issues and information to public attention.

In preparing recommendations based on the statistics, the NAACP stated:

The Bureau of Apprenticeships Standards and other public and private institutions have failed to get satisfactory results from joint apprenticeship training programs and have failed to put a dent in the need for jobs for central city residents. Looking at the last six years of apprenticeship hiring and retention, the Report Card shows little progress has been made. Unless a concerted effort is made by all parties to improve the record, we may never witness equal access to construction training/jobs for minorities and women. (<http://www4.uwm.edu/eti/construction/NAACPStatement.pdf>)

There are a number of recommendations for increasing minority presence in construction trades in the NAACP report. The NAACP reports can be accessed at www.uwm.edu/Dept/ETI.

In addressing the Work Group, Mrs. Zubrensky offered many suggestions, one specifically directed at Milwaukee County operations. "An idea I have had for a long time is that the County, itself, should become an apprentice trainer and hire a diverse complement of apprentices who can be trained by the skilled workers who are part of the County's workforce." This suggestion to examine how to train and prepare new workers for upcoming vacancies is being pursued in the County's *Ready to Work* initiative cosponsored by Supervisors Theo Lipscomb and Eyon Biddle.

Legislative Audit Bureau report on Apprenticeships

In 2010, the state of Wisconsin Legislative Audit Bureau released a report entitled "Evaluation of Minorities and Women in Construction Apprenticeships." This was the Bureau's third evaluation of apprenticeships. Previous evaluation (1984 and 1992) found low levels of minority and female participation in apprenticeships. This evaluation focused on:

- Determining minority and female participation in apprenticeships through FY2008-2009
- Review of the affirmative action plans/activities of local trade committees
- Review of DWD oversight of local trade committees
- Review of appeals filed by apprentices after cancellation
- Analysis of compliance of state agencies with Executive Order 108

Some of the key findings of the Legislative Audit Bureau report review of statewide data for 2009 included the documentation of a gap between the proportions of minority apprentice applications vs. active apprentice participation.

- Of total construction apprenticeship applicants, 26% of apprenticeship applicants were minorities and 4.5% were women
- Of those eligible for construction apprenticeship, 23% were minorities and 4.6% were those eligible were women
- Of those participating in construction apprenticeships, 8.3% were minorities and 2% were women.

Rank Order vs. Letter of Introduction: The Legislative Audit Bureau reported that 24 joint apprenticeship committees (JAC) used the rank order list. 70 JACs used the letter of introduction. LAB found different outcomes based on location of the JAC.

In the Milwaukee Area, the rank order method is associated with lower minority participation in apprenticeships. The Letter of Introduction is associated with higher minority participation. In the remainder of State, the rank order method has better outcomes than the letter of introduction.

The Legislative Audit Bureau found that Wisconsin's minority apprentice completion rates were

- higher than Michigan, Indiana, Iowa, Ohio
- lower than Illinois

The Legislative Audit Bureau recommended that the Wisconsin Department of Workforce Development track the race and gender of apprentice applicants and eligible apprentices and that DWD review JAC procedures for allegations of discrimination and provide stronger oversight of local trade committees.

LAB Report available at (<http://legis.wisconsin.gov/lab/reports/10-12full.pdf>)

Benefits to Economy as a Whole

The discussion of the value of an apprenticeship opportunity is largely looked at from the perspective of the opportunity for the individual worker. The Department of Workforce Development outlines benefits to participating employers.

The apprenticeship system offers not just a job, but a career. It **attracts better applicants** and improves employer-employee relationships. During the period of training, employers can instill values such as company loyalty, good work practices, and positive work attitudes. In addition, it **ensures training standards** of the trade are met while improving training standards in the industry.... With the promise of a future, apprentices become valuable, committed employees capable of advancing to more responsible positions within the company.

<http://dwd.wisconsin.gov/apprenticeship/> (emphasis in the original)

Additionally, there are broader economic benefits of the apprenticeship system. Northstar Economics Inc. studied the gains to the local economy that arise from apprenticeships programs and journeyworker employment. The highlights of the Northstar report issued in 2005 include:

- Southeastern Wisconsin construction apprentices generate \$3.3 million in state income and sales tax revenue
- The cost to the state to manage apprenticeship training programs is very low
- The cost to the state for apprenticeship training is much lower than the cost to the state for university education. Annual apprentice training costs \$10,343 less per person less than university student education
- Southeastern Wisconsin construction journeyworkers average annual earnings are \$42,582, which is 22% **more** than average Wisconsin worker earnings
- Gross payroll for southeastern Wisconsin construction journeyworkers is over \$1.3 billion
- The construction industry is one of the largest sectors in the state

<http://www.northstareconomics.com/CLMCRReport.pdf>

Apprenticeship Data for Milwaukee

As the administrative agency for registered apprenticeship programs in Wisconsin, the Bureau of Apprenticeship Standards is also the primary source of data on the racial, ethnic, and gender characteristics of apprentices. The BAS provides this data annually for active apprentice contracts, apprenticeship registrants, cancellation rates, and completion rates. Data is available from 1999 through the present.

As part of the inquiry conducted by the Work Group, information on the current status of apprenticeship applications and participation was gathered for this report. All data in the tables presented in this report is compiled by the Wisconsin Bureau of Apprenticeship Standards and available on their website. (http://dwd.wisconsin.gov/apprenticeship/statistics_data.htm)

Change in total active apprenticeships over last 10 years

	2001	2011	% change (2001-2011)
Wisconsin Apprenticeships	15,558	10,002	-36%
>> State non-Minority Apprenticeships	14,329	8,674	-39%
>> State Minority Apprenticeships	1,229	1,328	+8%
Milwaukee Area Apprenticeships	2,880	1,869	-35%
>> Milwaukee non-Minority Apprenticeships	2,569	1,588	-38%
>> Milwaukee Minority Apprenticeships	311	281	-10%

The Great Recession and longer term trends: Economic activity in the U.S. peaked in December 2007 before falling into recession in 2008. While the recession officially ended in the summer of 2009, economic growth has been anemic and unemployment has remained stubbornly high. Apprenticeship numbers, which declined during the Great Recession, have not made up the lost ground. This is part of a longer trend of declining apprenticeships at the state level, although minority apprentices actually increased in Wisconsin. The opportunity to earn and learn as an apprentice was decreased by a third over the past decade in the Milwaukee area. One piece of positive news for Milwaukee is that the decline in minority apprenticeships (10%) was considerably smaller than the decline in non-minority apprenticeships (38%) in the metro area.

The construction industry has been especially hard-hit by the recession and the ongoing “jobless recovery.” Serious job creation action is needed to replace the losses. Historically, the construction sector accounted for the greatest share of apprenticeships, so any negative impact on construction has a disproportionate impact on total apprenticeships. In the period just before the recession (2007), when economic activity was at its peak, 60% of all apprenticeships were in the construction sector. In 2010, the proportion of state apprenticeships in the construction sector dropped to 52%. It remains to be seen whether the decline in construction share of apprenticeships is part of a longer-term trend.

Construction apprenticeship share of total state apprenticeships

Year	Total Apprentice Contracts	Construction Apprentice Contracts	Construction Apprenticeships as % of Total Apprenticeships
2007	12,843	7,729	60%
2010	10,478	5,861	52%

Characteristics of Active Apprenticeship Contracts

The tables below display total apprenticeships by gender and minority status for the past decade.

Wisconsin

	TOTAL	Female	Male	Minority	Percent Minority
2000	14,257	1,537	12,720	1,045	7%
2001	15,558	1,924	13,634	1,229	8%
2002	15,031	1,927	13,104	1,277	8%
2003	14,121	2,007	12,114	1,307	9%
2004	13,052	1,791	11,261	1,248	10%
2005	12,606	1,748	10,858	1,315	10%
2006	12,614	1,776	10,838	1,412	11%
2007	12,839	1,723	11,116	1,450	11%
2008	12,459	1,629	10,830	1,472	12%
2009	11,256	1,431	9,825	1,314	12%
2010	10,464	1,322	9,142	1,288	12%
2011	10,002	1,228	8,774	1,328	13%

While total apprenticeship numbers statewide have fallen from their peak in 2001, the number of minority apprenticeships has increased during the past ten years on a statewide basis. The proportion of minority apprentices stayed relatively stable. Women's participation peaked in 2003 with 2,007 female apprentices (14%), and has since dropped.

Milwaukee Region

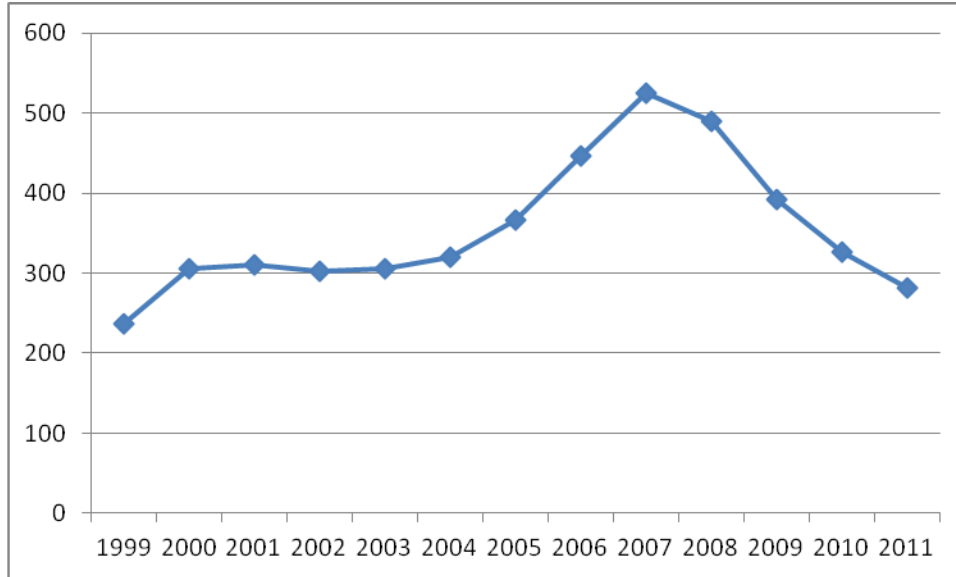
	TOTAL	Female	Male	Minority	Percent Minority
2000	2,658	105	2,553	305	11%
2001	2,880	111	2,769	311	11%
2002	2,878	95	2,783	303	11%
2003	2,818	90	2,728	305	11%
2004	2,722	78	2,644	320	12%
2005	2,718	75	2,643	366	13%
2006	2,871	85	2,786	446	16%
2007	3,124	94	3,030	525	17%
2008	2,900	83	2,817	490	17%
2009	2,405	68	2,337	392	16%
2010	2,125	64	2,061	327	15%
2011	1,869	59	1,810	281	15%

Milwaukee area apprenticeships have consistently been about one-fifth of total state apprenticeships, although the proportion reached 24% in 2007, the peak year for apprenticeship positions in the Milwaukee area. Apprenticeships have since dropped off, part of the overall downturn in the construction industry. Female participation in apprenticeships in the Milwaukee area is a fraction of

that in the state as a whole, and has declined significantly in the past decade. The number and proportion of minority apprentices in the Milwaukee area has fallen in the past five years.

The recession has undone recent progress towards more diversity in apprenticeship employment in the Milwaukee area. Although the number of minority apprentices did not decline as steeply as non-minority, the current 15% share of apprenticeship positions is too low. As the economy recovers, it will be important to monitor access and to take steps to ensure that minority share of total apprenticeships rebounds and continues to increase.

Milwaukee Area Minority Apprenticeship Trendline



Possible explanations for the growth in minority apprenticeships between 2004 and 2007 are the overall good economic conditions of the time (the rising tide was lifting all boats), and several large public works projects (including the Marquette Interchange and City Hall restoration projects) that had apprenticeship utilization requirements combined with local or minority hiring goals.

Breakout of minority detail: The table below shows minority detail, by breaking out African American and Hispanic share of minority apprenticeships. Of total statewide minority apprenticeship contracts, 57% were held by African Americans and 32% were held by Hispanics. In the Milwaukee region, 47% of total minority apprentice contracts were held by African Americans and 44% were held by Hispanics. In the non-union Associated Builders and Contractors of WI-Waukesha (construction) apprenticeships, the Hispanic share of minority apprenticeship contracts reaches 65%.

2011	Total Minority Apprentices	African-American Apprentices	African-American share of minority apprenticeships	Hispanic Apprentices	Hispanic share of minority apprenticeships
State	1,328	763	57%	427	32%
Milwaukee Area	281	132	47%	123	44%
ABC of WI - Waukesha	43	15	35%	28	65%

Minority share of apprenticeships in relation to minority share of population and employment:

By placing apprenticeship data in the context of population trends, we can also examine progress towards diversity and inclusion of minorities. The state workforce is becoming more diverse, so are apprenticeships. Minority share of total population and total employment has increased over the decade, but minority share of total apprenticeships increased at an even faster pace. The table below shows. Minorities are represented in apprenticeship positions proportionally to their share of population and employment.

State Minority share of Employment and Apprenticeships

Wisconsin	2000	2010	% increase in minority share (2000-2010)
Population, 16 years and older	9%	11%	18%
Employed Persons, 16 years and older	9%	13%	40%
Apprenticeships	7%	12%	69%

In 2010, minorities held 15% of all apprentice contracts in the Milwaukee area. Minorities accounted for 24% of all employed persons in 2010. Minorities represented 29% of the metro area’s total population aged 16 years and above in. In looking at the table below, if racial disparities did not exist, we would expect equal percentages. Because the percentages differ, we know that racial disparities do exist. There is a disparity between minority representation in the working age population and the employed population, and there is a disparity between minority representation in the working age population and in apprenticeships.

Milwaukee Area Minority share of Employment and Apprenticeships

Milwaukee Metro Area	2000	2010	% increase in minority share (2000-2010)
Population, 16 years and older	22%	29%	32%
Employed Persons, 16 years and older	18%	24%	33%
Apprenticeships	11%	15%	36%

One positive note is that the rate of increase in minority share of apprenticeships outpaced minority share of employment and population in metro Milwaukee, indicating a trend in the desired direction for diversity in apprenticeships over the past decade. This has not ameliorated the gap between minority availability for work and access to apprenticeships, however, and the Work Group calls on apprenticeship stakeholders to pay close attention to the data on minority representation in apprenticeship positions as the spring construction season begins.

There were eight Milwaukee area apprenticeship programs that had higher than area average representation of minority workers in active apprenticeship positions: Laborers (48%), Bricklayers (41%), Roofers (34%), Cement Masons (23%), Carpenters (19%), Ironworkers (18%), Painters (17%), and the non-union ABC program (16%).

Completion Rates

Entry into an apprenticeship is the first step in the process. While the length of an apprenticeship varies from trade to trade, the hours of work experience most apprentices need to complete their apprenticeships can be logged within 4 years of starting. Completion rates also differ by race. Generally speaking, completion rates for white apprentices fall in the 50-70% range, while minority completion rates fall in the 30-55% range. Interestingly, completion rates for both minorities and non-minorities are higher in the Milwaukee region than at the state level.

Cancellation Rates

The table below presents information on the number and percentage of first year apprentices whose contracts were cancelled in 2010. While apprentice contracts can be cancelled in any year of the apprenticeship, the probability of cancellation decreases in each subsequent year. Minority apprenticeships are cancelled at a higher rate than total apprenticeships. In Milwaukee area, 26% of apprenticeships held by minorities were cancelled in the first year, compared to a rate of 17% for all apprentices.

Cancellation rates for all apprentices (2010)

	All Apprentice Cancellation Rate			Minority Apprentice Cancellation Rate		
	# registrations	# cancelled	% cancelled	# registrations	# cancelled	% cancelled
State	2,109	329	16%	393	86	22%
Milwaukee Area	282	49	17%	34	9	26%

The data compiled by the Wisconsin Bureau of Apprenticeship Standards is an important tool for evaluating progress toward the inclusion of minorities and women in apprenticeship programs. The call to make this information easily available to the public was led by the NAACP. From the information presented in this report, the community can see that there is work to be done to create additional opportunity for people of color in apprenticeable occupations. The final section of this report includes Work Group recommendations for changes to policies and procedures to help achieve this goal. As the 2012 construction season gets underway, concerted cooperation by stakeholders to work together to pursue diversity in hiring and placement is needed.

Structure and Examples of Apprenticeship Programs

The apprenticeship programs available in the various sectors of our local economy fall under one of the three categories of governance structure: Joint Apprenticeship Committee, Employer Association Apprenticeship Committees, or independent employer. Whatever route is pursued, there are two common elements to any apprentice program: academic training and work-based training, and all programming is approved by DWD Bureau of Apprenticeship Standards.

1. Joint Apprenticeship Committees (JAC) – employer/employee representatives

Joint apprenticeship committees are organized jointly by groups representing both the employer and employees in a trade to oversee training for that trade. JAC committees can approve apprenticeship candidates and remove apprentices from the programs. The Wisconsin Department of Workforce Development oversees the JACs. Often the employee representative on a JAC is a labor union, but this is not always the case. The following Unions made presentations about their apprenticeship training programs to the Work Group.

Local UAW Apprenticeship

Industrial apprenticeship opportunities are available through employers associated with UAW Joint Apprenticeship Committees. One local example is the Masterlock Corporation. Masterlock currently has 4 industrial apprentices. This is a slower pace than a decade ago. There are a variety of apprenticeship opportunities available in an industrial setting. UAW Masterlock opportunities include tool and die maker, electrical, metal trades, and machine repair. Upon completion of a UAW apprenticeship program, an apprentice may be placed in the next available full-time opening in the job class. According to local UAW regulations, 20% of the UAW apprentices must be minority or female.

Southeast Wisconsin Carpentry Training Center

Applications for admissions into the SEWCTC are accepted six times annually. Applicants must have High School transcripts or GED or HSED equivalencies prior to applications. Applicants must complete a qualifying math test and then proceed to MATC to do the AccuPlacer testing. The AccuPlacer testing includes reading, arithmetic, writing, spatial and mechanical aptitude. Performances of the testing and previous experiences are then evaluated and eligibility is gained. A Letter of Introduction at this point is administered to where applicants are free to solicit employment with approved contractors. Any contractor interested in hiring an applicant must sign a letter of Intent to Hire before the process can begin. All Letters of Introduction are valid for six months from the day they are issued and renewed for a maximum of 24 months. If a person has not been selected within this 24 month period the application is void and process must begin from anew. As a means to promote apprenticeships, the Carpenters Union includes in their contracts language notifying signatory contractors that they are expected to be a trades trainer in that craft.

Construction Craft Laborers

Like all apprenticeships, the apprenticeship program for Construction Craft Laborers combines classroom training with on-the-job training. The classroom portion includes substantial hand-on training. The Laborers' have a training center near Madison, where 35 training courses are offered on site. The training emphasizes particular skills depending on the type of work a Laborer will be doing (heavy highway, sewer and water, weatherization, hazardous materials, etc) as well as a full complement of general construction and safety training to make sure the worker is protected in their job. The apprenticeship process starts with a passing score on the AccuPlacer test that is administered April through September at local union offices.

With a passing score, a candidate is issued a six month letter of introduction that allows them to seek employment with a contractor that is certified to train apprentices within the state. A list of candidates for referral to signatory contractors that request apprentices is also kept by the Apprenticeship coordinator. Most Laborers' training takes place at the training center outside of Madison.

2. Employer Association Apprenticeship Committees

The most well-known example of an Employer Association Apprenticeship Committee is the Associated Builders and Contractors (ABC) Apprentice Program. The main distinguishing feature of such apprenticeship committees is that they work with non-union contractors.

Associated Builders and Contractors Inc (ABC)

Associated Builders and Contractors (ABC) is a national trade association for the construction industry which actively promotes the "merit shop" form of construction. The Associated Builders and Contractors of Wisconsin promote non-union based apprenticeship training in Wisconsin. In order to be admitted into an ABC Apprenticeship Training, a candidate needs to have a high school diploma or equivalent, including one year of algebra. ABC candidates must take the Accuplacer apprenticeship application test and receive the minimum allowable score for their chosen field. ABC apprenticeship contracts can be signed at any time. Many employers prefer that potential apprentice applicants begin their employment at least 6 months before starting the apprentice program.

ABC has Apprenticeship Programs in the following fields: bricklaying, carpentry, data communications installer, concrete finishing, electrical, glazing, heavy equipment operations, HVAC (heating, ventilating and air conditioning), insulating, ironworking, plumbing, roofing, sheet metal and sprinkler fitting. The apprenticeship programs run for 3-5 years, depending on the field chosen. While in the apprenticeship program, the apprentice works full-time for an ABC contractor while also taking classes at a Wisconsin Technical College campus.

The ABC sponsoring employer must fulfill the same requirements as any trades trainer approved by the Wisconsin Bureau of Apprenticeship Standards. Second, the employer must be reviewed by the ABC Wisconsin Area Committee to determine their eligibility and ability to properly train and supervise apprentices. The employer must agree to train apprentices according to the state and ABC Wisconsin Apprenticeship standards. Employers do not have to be ABC members to train apprentices in the program.

3. Independent employer

If an individual wishes to become an apprentice with an independent, employer, s/he must first apply directly to the employer or company. In some cases, the individual must be hired by the employer in another capacity *before* seeking to become an apprentice. The employer determines the criteria to place applicants into an apprenticeship program, either through collective bargaining agreements or other criteria. The employer must apply to the Bureau of Apprenticeship Standards in order to create the apprenticeship. Northwestern Mutual and Cost Cutters are both examples of independent employers who utilize the apprenticeship model.

Pathways to Apprenticeship

In order to enter most apprenticeship programs, an individual generally must have the following pre-requisites: High School Diploma, GED or High School Equivalency Diploma (HSED). Secondly, some apprenticeship programs require an applicant to pass an Apprentice Test. Most trades require apprentices to have a minimum of 8th grade math and reading skills, mechanical aptitude and manual dexterity. In Milwaukee County, there are several educational and organizational institutions which provide a pathway to apprenticeship, by helping individuals to upgrade their skills in these areas and to prepare for apprenticeship entrance exams. The Milwaukee County Apprentice Work Group hosted presentations from representatives of many of these organizations, including: the Coordinator of MPS Career and Technical Education, the CEO of WRTP/Big Step, the Apprenticeship Coordinator for MATC.

According to presenters hosted by the Apprentice Work Group, the most important skill for an aspiring apprentice is math ability. This mathematical ability may come from the regular or advanced high school coursework or from specific pre-apprenticeship preparation. The programs listed below are focused on preparing individuals to take the apprentice test which in turn enables them to enter apprenticeship programs. These programs prepare the individual to take the apprentice test, but it is possible for an individual to take the apprentice test without participating in one of these programs.

The apprentice test assesses individual ability in the following areas: math, reading, science, spatial ability, manual dexterity and other areas relevant to the trade or occupation. An individual must obtain the minimum score for the selected field in order to pass the test and be considered for entry into an apprenticeship program. The content of the apprentice test differs depending on the trade that one wishes to enter.

Pre-Apprenticeship Preparation

An individual *may* begin to prepare to become an apprentice by participating in one of the programs below. Each of these programs provides good early preparation to enter an apprenticeship program. In pursuing one of these “pre-apprenticeship” programs, individuals are preparing to enter an apprenticeship program. However, participation in one of these programs does not guarantee NOR obligate an individual placement in an apprenticeship program.

1. Milwaukee Public Schools

a. Project Lead the Way

Project Lead the Way is a nationally-established middle and high school pre-engineering and technical education program created to prepare the future workforce for high tech jobs. Project Lead the Way offers a middle school “Gateway to Technology” curriculum and a 5-course high school curriculum. 28 MPS schools participate in Project Lead The Way. More than 5,500 MPS students are engaged in Project Lead The Way (PLTW). Individuals that take part in PLTW receive technical education that is good preparation for the apprentice test and entrance into an apprenticeship program. However, not all participants in PLTW choose to pursue apprenticeship training. The program does offer fertile grounds for recruitment of non-traditional students into the apprenticeship trades. Students in PLTW programming have higher standardized test scores, and better high school attendance and graduation rates. 85% of the students in PLTW in Milwaukee Public Schools are minority and 45% are female.

b. STEM

STEM is an acronym for science, technology, engineering, and mathematics. STEM education seeks to integrate the disciplines into a more cohesive approach to teaching and learning. The PLTW program is a national best practice in STEM education. Other STEM programs include robotics courses, after school competitions in robotics or construction, classes in other high technology fields like computer science or alternative energy technology. These high school programs all expose students to hands on technical skills and lay the foundation for apprenticeship opportunities. STEM courses have grown up in high schools where traditional “shop” classes had been long shuttered.

c. Construction Programs in MPS

Bay View, Bradley Tech, and the new School for Career and Technical Education (in the former Custer High School building) each offer specially-designed coursework that prepares high school students for careers in the construction trades. This training is good preparation for the apprentice test and for apprenticeship training. Students get a basic introduction to construction trades, important safety training, and preparation for apprenticeship application.

d. Bradley Tech High School

The Lynde & Harry Bradley Technology and Trade School was established as a partnership between business, education and government. It attracts students who want to pursue careers in the construction, communications or manufacturing industries. It aims to graduate more students who will continue in their career preparation via technical colleges and apprenticeships. More than 80% of graduates move on to jobs, apprenticeships or college. The Jane Bradley Pettit Foundation provided the \$20 million seed money to build the high school and a further \$13 million in private donations and \$23.6 million in public funding paid for the project.

e. Urban Skilled Trades Connection (USTC)

Urban Skilled Trades Connection is a collaboration between Milwaukee Public Schools and WRTP/BIG STEP that targets high school and middle school students enrolled in MPS. WRTP/BIG STEP is working with administrators, teachers, parents, students and construction/skilled trades professionals to engage MPS students in career preparation for construction or other skilled trades. The goal is to assist interested graduating seniors in earning apprenticeships after high school and to form a unique partnership between industry, the community and MPS. USTC currently works with Bradley Tech, Bay View, Hamilton, and the School for Career and Technical Education.

The program includes:

- Tutoring
- Career fairs
- Parent nights
- Outreach
- Guest speakers
- Job shadowing
- JATC training schools

f. Youth Apprenticeship Opportunities

Youth Apprenticeship Opportunities are one or two-year programs that are available to MPS juniors and seniors. They include paid, work-based learning and classroom instruction. Upon completion, the student receives a state-issued skill certificate. Students gain exposure to multiple aspects of the industry and can select from the following areas of specialization: auto technician, drafting & design, financial services, graphic arts/printing, health services, hospitality/tourism, information technology and manufacturing.

2. Wisconsin Regional Training Partnership/Big Step

In 1976, a consortium of representatives of the building trades founded Building Industry Group Skilled Trades Employment Program (BIG STEP), evolving from the efforts started in 1967 with Vince Toran and Project Leap. BIG STEP was formed in an attempt to increase the number of women, minorities, and younger workers employed in the building trades. In 1992, the formation of Wisconsin Regional Training Partnership (WRTP) was announced after the Commission on a Quality Workforce recommended the development of partnerships between business, labor, and government to renew the industrial base in the Milwaukee area. Today, WRTP/BIG STEP serves as a workforce intermediary to connect interested community residents to the appropriate resources for training and employment in a variety of fields, primarily construction and manufacturing.

BIG STEP is often the first point of contact for candidates interested in an apprenticeship. Through formal relationships with local trade unions, BIG STEP is contractually bound to perform the referral, tutoring, and other services they offer to connect local residents to construction careers. In addition, as part of a voluntary negotiated settlement to an EEOC complaint about minority access to apprenticeships the Wisconsin Department of Workforce Development Bureau of Apprenticeship Standards named BIG STEP programming as a remedy that they would increasingly utilize to achieve desired inclusion. While BIG STEP is one of several community partners to Milwaukee's Department of Public Works for certifying eligibility for the City's Residents Preference Program, this legal standing of BIG STEP places a special emphasis on using its programming as a means for connecting people of color to apprenticeship opportunities.

The partnership has achieved national recognition for its intermediary role within utilizing a sector-based approach. Workforce intermediaries are private, non-profit initiatives that bring together employers, unions, employees, job seekers, resources, community partners and trainers to improve the economy of the area by providing employers with a diverse pool of qualified candidates to fill their openings. WRTP/BIG STEP assists both union and non-union contractors in finding qualified workers. WRTP/BIG STEP explains their process in their most recent annual report:

After an initial assessment, WRTP/BIG STEP offers at least one of four possible options for community residents: (1) entrance to the BIG STEP apprenticeship preparation program, (2) an array of hands-on training certificate programs, (3) referral to immediate employment opportunities, or (4) referral to community partners for job-readiness services, such as driver's license recovery, basic skills remediation, and GED preparation.

WRTP/BIG STEP's model for collaboration with local community-based organizations that provide employment assistance services brings participants of those programs to the "finishing point" immediately before employment, and is the "beginning point" into the industry.

WRTP/BIG STEP Outcomes in 2010

- facilitated 224 employment placements into jobs
- 54% of placed individuals were minorities
- average placement wage of \$18.46 per hour
- 107 individuals passed at least one construction apprenticeship exam
- placements were made with 129 different employers throughout the region

3. Wisconsin Technical College System

The Technical Colleges in Wisconsin are connected to apprenticeship programs in a number of ways. They offer High School Diploma, GED or High School Equivalency Diploma (HSED) as the entry-level step. They offer math refresher courses to help individuals prepare for the Apprentice Tests.

Locally, Milwaukee Area Technical College serves as an information referral services, basic skills, and MATC has also provided information on the basic steps required in order to enter apprenticeship. According to MATC, the procedures vary slightly from trade to trade. Basically, an individual takes the following steps in order to enter an apprenticeship.

1. Individual selects a trade or occupation
2. Individual applies to an employer or to a Joint Apprenticeship Committee (JAC). The following trades have specific requirements in order to enter their apprenticeship programs: building and construction trades, manufacturing and service trades
3. Individual seeks additional support and preparation, if necessary

MATC offers related instruction, which includes classroom instruction as well as hands-on training, for the following Apprenticeship programs:

Barber/Cosmetologist, Bricklayer and Mason, Cement Mason, Childcare Development Specialist, Construction Electrician, Culinary (Cook), Drywall Taper and Finisher, Glazier, Industrial Electrician (Maintenance Electrician), Industrial Pipe Fitter, Machine Repair, Machine Tool (Machinist), Painter and Decorator, Patternmaker, Plumber, Printer, Refrigeration and Air Conditioning, Roofer, Sheet Metal Worker, Sprinkler Fitter, Steamfitter, Steel Foundry and Molder (Foundry/Metal Casting), Telecommunications (DVD) Installer/Technician, Tool and Die Maker, Tool Maker

Each year MATC hosts an Apprenticeship Banquet where that year's apprenticeship graduates are honored. For more information about apprenticeship training at MATC, please see <http://www.matc.edu/student/offerings/apprenticeships/general.html>

4. State or Local Government policies

The City of Milwaukee Department of Public Works and the Metropolitan Milwaukee Sewerage District have apprenticeship utilization requirements as part of their operations and contracts. The MORE ordinance passed by the Milwaukee Common Council extended the use of apprentices to projects that receive public financial assistance, such as tax incremental financing. The MORE Ordinance requirements are triggered by City financial assistance of \$1 million or more.

The City of Milwaukee DPW policy states that for all projects in excess of \$100,000 contractors will employ apprentices in accordance with the maximum ratio of apprentices to journeymen as established by the state. In 2010, there were 71 apprentices reported by DPW, and 42% were non-white.

The MMSD policy applies to construction contracts over \$1 million for projects with an expected duration of 6 months or more. In 2011 there were 10 projects with apprenticeship requirements based on their policy and 23 apprentices worked on those projects.

Under a policy known as Executive Order 108 enacted in 2006, the State of Wisconsin required contractors with 5 or more craft workers on public projects to be a trades trainer and to sponsor apprentices. In 2009, the Milwaukee County Apprenticeship Work Group wrote to then Governor Jim Doyle to suggest that Executive Order 108 be extended to state projects funded with American Recovery and Reinvestment Act dollars, as estimates indicated that Wisconsin would receive \$3.5 billion in federal stimulus funding. In addition, the MCAWG recommended to Governor Doyle that equal employment opportunity goals language be applied to Executive Order 108 in order to increase the employment of minority apprentices.

“The effect of EO 108 has been significant. Since its enactment, nearly 200 new employers have been added as trainers of apprentices and 953 apprenticeships were created as a result of EO 108. Even during the downturn in the national economy, 70 new Wisconsin employers added apprentices in 2009. This growth in apprenticeship under EO 108 offers expanded opportunities for women and minorities in Wisconsin.” (excerpt from letter by former DWD Secretary Roberta Gassman, to Leg. Audit Bureau, September 2010).

In 2011 Governor Walker rescinded Executive Order 108. The MATC apprenticeship program reports that since this policy change, they receive noticeably fewer requests for assistance in finding apprentices for companies formerly subject to the requirement. This disappointing development indicates that the existence of utilization policies do affect the employment of apprentices.

The MCAWG believes that policies that promote the use of apprentices are effective means of creating a pipeline of skilled workers for area businesses and strongly supports the reinstatement of this policy at the state level and the use of similar policies at local levels of government.

Identification of Barriers to Apprenticeship

Over the course of the work of the Apprenticeship Work Group, we compiled the data on apprenticeship trends and interviewed many knowledgeable stakeholders about the issues that are creating barriers to apprenticeship opportunities for minority workers.

Overall Economy

The primary barrier facing minority apprenticeship applicants right now is the state of the economy and the ongoing downturn in the construction industry. Many journey-level workers and existing apprenticeship are currently unemployed. Work for those already in the pipeline must pick up before new entry-level workers will be called up for projects.

Employer Motivation

An apprenticeship is a 3 party contract, between the state, the employer, and the employee. The Joint Apprenticeship Committee for the trade is the state-approved implementer of the training portion of the program, and the employer provides the on-the-job experience portion. The actual hiring is dependent on an employer. Barriers to apprenticeships can happen if there is a lack of employers that wish to host apprentices, who don't wish to be trades trainers. Barriers to apprenticeships for minority workers can happen if the employer is racially-biased in his or her hiring process.

Waiting Lists (Rank List vs. Letter of Introduction)

For some trades, once an individual has passed the apprentice test for their chosen field, they are put on a ranked waiting list. As noted in the data review, there is a disparity between the proportion of minorities found eligible for apprenticeships and the proportion that are in apprenticeship placements. One of the problems related to waiting lists is that applicants may not move up a rank-order list as fast as they can be bumped down it. Applicants that receive higher test scores are continually added to the list after each test date. While rank-order lists were originally instituted to focus on objective criteria for the placement of apprentices rather than subjective criteria, the Legislative Audit Bureau report found that Joint Apprenticeship Committees that use a ranked list have lower minority representation.

Another means of entry into apprenticeship is the Letter of Introduction. Once entrance criteria have been met, potential apprentices are issued a letter from the JAC indicating they meet basic requirements for the trade. Apprentices are then free to contact the employer of their choice to apply for employment, using this "letter as a reference. Any contractor interested in hiring an applicant must sign the letter of introduction, stating his intention to hire the person. No applicant may begin work for any contractor in an apprenticeship position without first contacting the BAS apprenticeship office. The Letter of Introduction is usually valid for 6 months and generally there is a process for renewing it if necessary.

In southeastern Wisconsin, Carpenters and Laborers use Letter of Introduction. The Sheet Metal Trade switched to the Letter of Introduction in 2011, and many of their waiting apprentices found employment since that change was made. Given all the evidence reviewed by the Work Group, the letter of introduction appears to work better as a means for minority workers to enter apprenticeship. The Wisconsin Bureau of Apprenticeship Standards Director Karen Morgan believes that Rank Lists could be improved if federal regulation would allow the "closing" of the list. Currently federal regulations require that lists be constantly open, therefore applications are taken on a constant basis. This means that individuals do not maintain their rank on the list, but rather are can be moved up or down the list when new scores are added.

Co-credentialing

There is a lack of connection between high school programs and apprenticeship programs. For example, MATC does not accept Bradley Tech High School coursework for credit. Also, the employers and trade unions need an incentive in order to recognize training done at the high school level.

Cancellations during Apprenticeship Probationary Period

The probationary period for apprentices is set by federal regulation. According to the BAS, up to twenty percent of Wisconsin apprentices have their apprenticeship cancelled during the probationary period (Either party can terminate during the probationary period without cause). A review of this annual data indicates that minorities experience cancelled apprenticeships at a higher rate than whites and that more than 1/3 of the all cancelled apprenticeships are held by minorities (while 12% of apprenticeships are held by minorities). More information is needed on why cancellation is so high. The following possible explanations were identified: transportation difficulties, lack of child care, discrimination, difficult coursework.

Waivers granted to Employers

State Representative Barbara Toles and Skilled Trades Collaborative pushed for a state inquiry into the practice of issuing waivers to employers, which allows employer to forgo use of apprentices. The Legislative Audit Bureau found that BAS granted 6,716 exemptions to apprentice utilization policies between 2006 and 2009. Policies to use apprentices must be enforced.

Monitoring/Oversight is insufficient

Because of continuing racial and gender disparities in several factors related to apprenticeships, the Legislative Audit Bureau recommended that the Bureau of Apprenticeship Standards track the race and gender of apprentice applicants and eligible apprentices, and step up other enforcement activities. The BAS has had to reduce its staff due to budgetary challenges. It is difficult for existing staff to gather all the needed information and adequately monitor all apprenticeship programs in order to enforce program standards.

Mentoring and Support for Retention

The Skilled Trades Collaborative, BIG STEP, the Coalition of Black Trade Unionists, Women in the Trades, and the Milwaukee NAACP construction committee have all been active in the arena of providing support to those who enter into apprenticeships. These groups offer support to minorities and women on the job, and work to trouble-shoot issues that might arise with particular projects or contractors. At regular meetings and through formal programming, these groups offer a support base for the trades, particularly to underrepresented groups and minorities. Currently The Skilled Trades Collaborative and BIG STEP are conducting a mentoring and retention project with funds provided by the state Department of Workforce Development.

Representatives of these groups advise a clear timeline for the apprenticeship process so that candidates have clear expectations and understanding of their responsibilities as well. The need to make sure apprentices understand their rights and responsibilities within their apprenticeship structure applies to successful apprentices as well as those facing difficulties on the jobsite or in their training classes. For union-based programs it is important to make sure that apprentices know they can be assisted by a union representative in their meetings with the Joint Apprenticeship Committee for their trade. Often a minority apprentice may be the only person of color on a job-site, and therefore feel alone and unsure of where to get assistance if a problem arises. An opportunity to have a mentor work

with those struggling in their apprenticeship, and an advocate in their interactions with the JACs and their employers, could improve outcomes. Finally, the Work Group recommends exit interview with the apprentices from under-represented groups who quit or whose apprenticeships are cancelled. The objective of such exit interviews would be to gather information that will help programs make quality improvements.

High School Drop-out Rate

Each year, the high school drop-out rate for youth in the city of Milwaukee is amongst the highest in the nation. The drop-out rate is one of the most pressing social and employment problems in the Milwaukee area. Some members of the MCAWG expressed that once someone has dropped out of high school, it may be too late to consider an apprenticeship. The student may lack the math and reading skills to qualify for an apprenticeship.

Outreach to Young People and the broader public

There are a number of organizations seeking to connect young people, especially those from under-represented populations, to apprenticeship programs. Programs we surveyed in the course of the Work Group's efforts, such as MPS Career and Technical Education, WRTP/BIG STEP, Career Day presentations by MATC apprenticeship program staff, and high school presentations by apprenticeship coordinators from various trades are all playing an important role. Cooperation among the entities promoting the apprenticeship model could be improved. An example shared was that the coordinator of the MATC apprenticeship program gets invited to make presentations at specific suburban high schools and would like to receive more invitations from Milwaukee high schools.

Another area for improvement noted by Work Group members is that schools traditionally do not raise construction trades apprenticeships as a potential pathway until a student is in trouble academically. This "path of last resort" attitude, or a bias toward four year college degrees, among those guiding high school students' next steps undermines entrance into the construction and other apprenticeable occupations in our local economy. Parents, school administrators, many teachers, counselors and others reflect the values commonly held in our society that the four year college education is the "one way to win." Much can be done to help educate school personnel on the value of apprenticeships in a range of occupations. But, the broader context makes this challenge a vexing one. Until policy makers and community leaders speak out on the value of these careers for our young people, our families and our economy, we continue to swim against the tide.

Work Group members call for additional public support and funding to expand technical education in more high schools. Lack of any hands-on experience deters some students from considering trades opportunities. The story of the young man who picked up a hammer by the claw end instead of the handle is an often-repeated one in Milwaukee apprenticeship circles. Consideration of a future in construction won't happen if students don't have more exposure to tools and how to use them.

It was noted that data on occupations usually compares earnings for those with a High School diploma to those with a four year college degree. Adding information on average earnings of apprentices and journeypersons for various trades could provide an important incentive.

Along with the overall need for positive messaging about careers in skilled trades, it was recommended that specific messages be developed for different age groups. The information shared with 15 year olds would be different from that shared with 25 year olds. Proactive outreach with age-appropriate talking

points is key to recruitment. One suggestion raised is an “apprenticeship fair” along the science fair model for students in MPS.

A final issue discussed by the Work Group is that of math skills. Earlier exposure to the practical uses of math and math tutoring can help to prepare students for trade specific math applications are also recommended recruitment strategies.

Members of the Work Group feel there needed to be a “culture change” in the appreciation of skilled trades work and the opportunities those programs represent for a long-term career. Available workforce development data help make the case for this shift in thinking:

- A 2009 report by The Workforce Alliance projected that 2/3 of job openings in Wisconsin through 2016 are “middle skill jobs” requiring less than a 4 year degree, and apprenticeship opportunities fall within those majority of upcoming job openings. More recently, Harvard Graduate School of Education noted the dominance of careers requiring more than a high school diploma but less than a four year degree in their report “Pathways to Prosperity.”
- Last year, the Wisconsin Technical College System saw over 38,000 four- year college graduates enroll in their programs. MATC alone enrolled 4,800 students who already had four year college degrees, making it the largest “graduate school” in the region.

Better alignment of information and messages about the job market should be embraced by relevant stakeholders. Better coordination and information sharing among the entities working to promote apprenticeships is one recommendation to create this change.

Recommendations of the Milwaukee County Apprenticeship Work Group

After extensive review of the state of apprenticeship opportunities for minority workers, the Milwaukee County Apprenticeship Work Group makes the following recommendations.

Public Perception of Apprenticeship and Outreach to Youth

Some parents and educators view apprenticeships as a “path of last resort” for young people who do not have the aptitude to enter college. There are stereotypes especially that construction apprenticeships are unskilled positions. Many parents and education officials stress four year degrees as the only means to good employment. Recommended strategies for changing these opinions and improving recruitment strategies for young people include:

- The Wisconsin Department of Public Instruction should create a designated fund to improve funding for technical education (“shop”) classes.
- The Wisconsin Department of Workforce Development should create a promotional campaign highlighting the wages and career opportunities in apprenticeable occupations and disseminate to school districts and youth-serving community-based organizations.
- The Wisconsin Bureau of Apprenticeship Standards and the Wisconsin Department of Public Instruction should work together to create educational programs for dissemination to schools districts aimed at parents, administrators, teachers and counselors to improve advocacy for skilled trades.
- The Wisconsin Bureau of Apprenticeship Standards and the Wisconsin Department of Public Instruction should work together with secondary teachers to create math lessons featuring skilled trades that can be promoted through statewide mathematics teacher organizations
- The Wisconsin Department of Public Instruction should work with state and local trades organizations to help craft and promote age appropriate messages about careers in the trades and opportunities for “hands on” experiences.

Joint Apprenticeship Committees Role

Work Group members have the following recommendations for the labor and management members of trade joint apprenticeship committees:

- Research the Effectiveness of Letter of Introduction vs. Rank-order List in terms of promoting diversity in apprenticeship outcomes
- Increase the diversity on the Joint Apprenticeship Committees on a trade-by-trade basis
- Sponsor Diversity or Cultural Competence training for JAC members
- Perform exit interviews with apprentices who do not complete their program to guide improvements that could be made to programming to increase retention

Wisconsin Bureau of Apprenticeship Standards Changes

Work Group members have the following recommendations for the role BAS can play:

- Increase compliance reviews on projects that are supposed to take on apprentices
- Decrease number of waivers granted on projects so that maximum apprenticeship usage is being supported by the state
- Provide diversity or cultural competence training for Employers and Joint Apprenticeship Committee members
- Remember that diversity applies to race/ethnicity, gender, and the disabled community and monitor for compliance on all levels
- Host apprenticeship orientation sessions, presenting information as the 3rd party in the apprenticeship agreement and as the oversight entity in the process would be a positive role to play
- Assist the JAC's in researching the effectiveness of Letter of Introduction vs. Rank-order List in terms of promoting diversity in apprenticeship outcomes, and help craft policy to promote the method that is most effective
- Continue to provide financial and organizational support for mentoring and retention initiatives

State Policy Change

The Work Group recommends that the Governor restore Executive Order 108 (promotion of apprenticeship usage) with attention to equal opportunity goals on all covered state projects. Absent action by the Governor, the State Legislature should enact legislation to implement an apprenticeship utilization policy for state projects, with attention to equal opportunity goals.

Apprenticeship Policy for Milwaukee County

One of the charges of the Work Group was to consider whether Milwaukee County should institute an apprenticeship utilization policy that would set expectations for the number of apprentices on projects of varying dollar values. The City of Milwaukee has an apprenticeship utilization policy for public works projects and for TIF projects under the MORE ordinance. MMSD has an apprenticeship utilization policy. The State of Wisconsin previously had an apprenticeship utilization policy under Executive Order 108. These policies all produced results and created opportunity. Hiring standards have been important tools for driving demand for local or disadvantaged workers.

For this reason, the Work Group recommends that the Milwaukee County Board of Supervisors adopt a policy that requires apprenticeship utilization on county projects. In the collective experience of Work Group members, rules that drive demand for diversity in the public contracting realm are important tools to achieving our desired goals.

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